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Cartographic History, the Post-Colonial Landscape and the Agricultural Settlement Scheme: A Case Study of Citizen-Based Mapping in Northeastern Ibadan Rural Hinterland

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Cartographic History, the Post-Colonial Landscape and the Agricultural Settlement Scheme: A Case Study of Citizen-Based Mapping in Northeastern Ibadan Rural Hinterland

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'A Thesis submitted to the Faculty of Science, University of the Witwatersrand, Johannesburg, in fulfilment of the requirements for the degree of Doctor of Philosophy.'

Johannesburg, September 2023.

DECLARATION

I declare that this thesis is my own, unaided work. It is being submitted for the Degree of Doctor of Philosophy at the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination at any other University.



_____

(Signature of candidate)

_____5th_____day of

_____September 2023_____at___Johannesburg_____

ABSTRACT

Maps of economic imagination provide visual insights into alternative agrarian spatial thought. This thesis examines visual contribution to reconstituting agricultural subjectivity. It explores the potential of citizen-based mapping in consolidating alternative visions of the agricultural settlement scheme. Visualisations are integral in the discursive technologies of post-colonial state policies that produce modern agricultural subjectivity. On one hand, these state cartographic strategies involve othering practices of subaltern agriculture. On the other hand, there are resurgent ideas of community-based agricultural schemes verbalised amongst subaltern groups. Hence, there is an ongoing political-economic struggle of visions mediated by visualisation and verbalisation.

Drawing upon theoretical literature in spatiality, postcolonialism and governmentality, the thesis explores taken-for-granted knowledge, sites of economic difference and silenced voices/visions on the post-colonial agricultural landscape. Using Northeastern Ibadan rural hinterland of Oyo State, Southwest Nigeria, as a case study, the thesis argues that visualisation offers insight into counter-narratives and alternative reframing of the agricultural settlement scheme. This study employed a multi-method qualitative approach involving the critical historical reading of state maps, ethnographic analyses and mapmaking techniques to visualise and summarise developmental concerns and aspirations.

The thesis demonstrates that state imaginative geographies strive in shaping agricultural identities and subjectivities. Recently, these cartographic legacies of state rationalities seek the active consent of the citizenry in the drive toward state-sanctioned neoliberal imaginary. The study contends that the post-colonial state in Nigeria envisions a large-scale agricultural development rather than supporting smallholder subaltern agriculture. Hence, there is intentional and unintentional involvement in visual disinformation and engagement in anti-political economic imaginations of subaltern agriculture. However, the visualisation of verbalised counter-narratives contesting state developmental visions and alternative imaginations of the agricultural settlement scheme unveil anticipatory spatialities desiring a break from economic decline and stagnation in rural hinterlands. This transformation of imaginaries into visual images emphasises new perspectives and new insights renegotiating the political subjectivity of subalterns. This thesis demonstrates that visual geographies of subaltern aspirations offer alternative visions of the agricultural settlement schemes.

I dedicate this Thesis to the glory of God Almighty.

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CHAPTER 1 INTRODUCTION

1.1 Background to Introduction

The visual communication of spatial perceptions and developmental visions of citizens through alternative mapping practices is a significant and rapidly changing field of geographical scholarship. This shift to a democratised direction in the agency of mapping away from the notion of the map as an apparatus of the dominant power elite, particularly the state, offers emancipatory knowledge for the citizenry (Crampton, 2010; Wainwright, 2008; Wood, 2010). On one hand, maps enable the visualising of spatial perceptions that reveal the selection, organisation and interpretation of spatial features considered important to citizens in everyday practices (Sletto, 2020). On the other hand, the developmental visions of citizens, often overridden by the legible spaces of state imaginaries, are emboldened by deploying multiple spatialities of citizens' aspirations through visualisation, drawing attention to possibilities to create and think of developmental reality from other perspectives (Olwig, 2022). This is very important in the post-colonial state, where the visualisation of the economic landscape has considerable influence on the dialogue and activities of material development.

The perceptions of space and developmental priorities of the economic landscape have been a site of social struggle since the formation of the colonial state in Sub-Saharan Africa. In post-colonial sub-Saharan Africa, state power not only dominates the economic developmental process but also enlists the visualising power of mapping practices in the production of economic spaces with a goal for socio-political control (Hall et al, 2015). For example, the state has consistently mobilised the social processes and political-economic rhetoric to structure spatial consciousness towards a rational agricultural landscape (Brouwer, 2019). In the current pursuit of economic liberalisation in agriculture (Smalley, 2013; Tsikata, 2015), the post-colonial state is deploying visualisations to secure the popular consent of the citizenry for its neoliberal imaginaries. For example, the use of cartographic discourses to secure support for neoliberal agricultural imaginaries of planned large-scale farm estates. Simultaneously, the post-colonial state employs these map discourses to displace the logic of the welfarist-style agricultural settlement scheme. Hence, the statist vision of development vigorously seeks to secure a neoliberalised agricultural landscape symbolised as the inevitable path of progress (Huggins, 2013; Williams, 2021).

Whereas national and subnational governments are embracing economic liberalisation, some rural communities are becoming more resilient in their quest for locally defined, alternative

material development. This is a response to economic decline and stagnation, seriously felt in rural Africa, where the developmental challenges result from unequal power relations (Lewis, 2006; Hall et al, 2015). In recent times, agricultural development of the rural hinterlands has become a focus of many concerned citizenries, international organisations, donor agencies and development practitioners (Treakle and Krell, 2014). On one hand, there is support for community-based agriculture as the path to sustainable development (Moitui, 2019; Samoggia et al, 2019; van der Ploeg, 2013). For instance, there is the advocacy for adopting a community-driven development model by development experts in Nigeria (Orakpo, 2014). On the other hand, existing state agricultural programmes continue to draw the attention of the citizenry (Anugwom, 2020; Bergstresser, 2017). For example, there are calls to revamp the state agricultural settlement schemes in southwestern Nigeria. Nonetheless, there have also been growing calls for a paradigm shift to community-driven agricultural settlement schemes in rural communities from the much-awaited revival of state-owned land settlement schemes that exhibits a sense of decline and despair.

The Community-owned Farm Settlement Schemes (CFS) emerging in some suburban and rural communities in Southwest Nigeria is a resurgent innovation responding to economic stagnation, local developmental initiative and state-facilitated land grabs. This community-owned agricultural initiative drew inspiration from modernist, welfarist-style developmental policies of the post-Second World War and ideas of commoning traceable to pre-colonial indigenous farm village practice (Bollier and Helfrich, 2019; Oyeleye, 2001). Hence, this alternative vision of the agricultural landscape aspires to diverse possibilities beyond the inevitable, standardised truths of neoliberal developmentalism (Massey, 2005; Harvey, 2005a; Radcliffe, 2012). The material development encouraged by neoliberal policies reflects the continuing effect of capitalist modernity since the era of imperialism, colonialism and the early post-independence welfarism (Clayton, 2009; Woods, 2011). Nevertheless, local spatial knowledge is still insignificantly visible in the developmental campaigns, which seek to embrace these people-driven agricultural strategies (Potter et al, 2012). In a visible-oriented social world, visuality is crucial in the politics of development and knowledge (Brighenti 2010; Crampton, 2010).

Hence, maps are important in the envisioning of spatial concerns of agriculture in rural aspirational geographies. It has been posited "power and the management of power are the moving forces of development", and mapping and maps "are used to maintain power and strengthen existing power structures" (Kio, 1986, 10; Kitchin et al, 2011; Thatcher, 2018; Wood, 2010). State

power deploying cartography is actively moving towards embedding neoliberal rationalities as a taken-for-granted narrative on the agricultural landscape (Robinson, 2003a; Harvey, 2005a). Nonetheless, the map as a form of transformative power can also re-frame political subjectivity in the context of alternative spatio-economic imaginaries. Therefore, there is a need to bring maps and mapping to empower the idea of the CFS in the interest of locally defined development (Adesina, 2012; Fabricant, 2012; Wright, 2012).

I argue, in this thesis, that maps of economic imagination in southwest Nigeria provide visual insights into alternative agrarian spatial thought. There is a duality in the visual power of maps that are evident in its deployment as an othering strategy of state power and its emancipatory potential for subaltern groups (Crampton, 2010). In the contemporary post-colonial world where visibility is crucial to emancipatory politics, I contend that subaltern perspectives need to engage the alternative production of space through maps in their contest of dominant worldviews that represents its knowledge claims as inevitable (Massey, 2005; Sletto, 2020; Satgar, 2021). This is necessary for the (re)envisioning of the agricultural landscape, where tacit knowledge and verbal communications of alternative futures have been a disadvantage in their contest with normative representations of state cartographic power. Visual communication assists the frailty of human memory in spatial sense-making of deeply thought but vaguely represented ideas (Austin, 1998; Mitchell et al, 2011; Tversky, 2000). Subaltern epistemologies might adopt diverse ways of expressing their agricultural imaginaries, but adapting cartographic technologies and map-making practices to imagine space visually draws greater attention or political awareness to these imagined futures.

1.2 Research Motivation

The motivation for undertaking this thesis was the interconnected interest I had in cartography, landscape studies and visual arts. Having come across several economic maps of the Old Western Region of Nigeria during a brief stint at the Oyo State physical planning agency, my interest in state cartography during that historical period arose. Equally, the continued popularity of the agricultural settlement scheme in southwest Nigeria drew my attention, even though the scheme presently had fallen into comatose. For instance, the settlement scheme had always been the subject of lament and nostalgia in newspapers, electronic media, electoral politics and public fora by older generations of southwestern Nigerians. More importantly, I came across attempts at

people-driven strategies at establishing community-owned farm settlement schemes in the immediate and greater Ibadan rural hinterland. Hence, these experiences led to curiosity and questions: What impact did state maps have in organising economic space and producing agricultural identities? Is the settlement scheme, exemplifying the agricultural landscape, simply an impact of Western modernity amongst the citizenry? Are the emerging self-expressed agrarian imaginations questioning these taken-granted state agricultural identities?

These questions became more pertinent to my field engagements as a cartographer and a surveyor's assistant in the countryside some years later. For instance, I came across moribund and neglected plantations and farm settlements of the Old Western Regional Government. As my field engagement took me further into the remoter hinterland, I came across towns and farm-villages where farmers expressed their developmental concerns and referred to their neglect. On the other hand, back in the city of Ibadan, I encountered vigorous state-sanctioned neoliberal campaigns of reviving and transforming the farm settlement scheme, utilising several visual media, including maps. I began to draw interconnection amongst these themes of space, the post-colonial state, the agricultural landscape and the imaginations of rural agrarian populations. First, that state maps had a role in the production of space that impacted the agrarian economy. Again, there was an ongoing contest of discursive representations of agricultural imaginary evident across Yorùbáland but intense in the agrarian politics of Oyo State. In addition, the agrarian imaginary of CFS in towns and villages reflected a vagueness evident in the verbal communications of individual and collective farmers.

What was clear from these ruminations of spatial production was that the particular organisation of the geographic space in the colonial world had an impact on the contemporary practices of agricultural governance in post-colonial Yorùbáland. For example, Fig.1.1 depicts a late colonial representation of the agricultural landscape revealing a space of cash crop production that resonates in the post-neoliberal agricultural imaginary of comparative advantage in cassava production (Carter et al, 1992; Floyd, 1969; Smalley, 2013). Hence, my curiosity led me to raise further questions; how have the governing class and subaltern groups conceptualised and imagined the agricultural landscape in the post-colonial economic space in southwest Nigeria? What significance do visualised geographies offer in the articulation of alternative agrarian futures? In what ways can hybrid-mapping practice in the context of citizen-based mapping aid the politics of visibilising subaltern agricultural imaginaries?



Fig.1.1 Map of Nigeria Showing Agricultural Products, 1955 (Source: Nigeria Farmer's Diary, Nigeria Cocoa Marketing Board, 1955)

In recent years the deconstruction of (post)colonial state cartographies has been undertaken in sub-Saharan Africa (Clemm, 2012; Haines, 2015; MacArthur, 2016: McGowan, 2014; Prior, 2013), however, a critical postcolonial reading of state maps as agricultural discourses of state economic power has received little attention. Again, there has been little exploration of the impacts of state cartographic rationality on indigenous geographical knowledges. In addition, how much indigenous geographical knowledges influence emergent subaltern knowledges in its social contest of agricultural imaginaries, is left unexplored. Again, the resilience of capitalist modernity as evident in the neoliberal envisioning of the agricultural landscape draws attention to this social contest of economic imaginaries (Fabricant, 2012; Williams, 2021). Hence, the continued reworking of the agricultural landscape by state power through cartographic practices in the post-neoliberal period requires critical engagement. This is particularly important in the face of resurgent ideas of the CFS. Employing citizen-based map-making could provide counter-visuality to singular representations of the agricultural landscape, draw attention to counter-narratives of

neoliberal developmental claims, and clarify visually resurgent ideas of CFS. They all combine to renegotiate the political subjectivity of subaltern groups (Massey, 1994). Therefore, there is a need for a social-cultural context to the cartographic history of West-Central Africa.

Therefore, my initial reading in cartography shaped my interest in these interconnected themes and the design of the present study. Brian Harley's argument concerning the social production of the map and the exclusion of Othered knowledges was important in the framing of my research (Harley, 1988; 1989; 1990). Indeed, his contention that cartography is a form of power-knowledge resonates with my curiosity about the role of maps and mappings in agricultural development. However, I differed with his assertion that cartography was essentially an elite discourse as several sociocultural cartographers have shown (Crampton, 2001; Gerlach, 2014; Perkins, 2018; Wood, 1992; 2010). Cartography could act as a counter-narrative and a form of transformative power for alternative mentalities in the face of neoliberal modalities.

In addition, the arguments of Edney (2018; 2019) on the map as a product of specific spatial discourses together with the dominant effect of cartographic idealisations contributed to the outlining of this research. Again, Crampton's philosophic arguments, particularly his critical cartographic agenda shaped my methodological approach in this research (Crampton, 2001; 2002a; 2004; 2010). The research agenda focused on the history and politics of maps furthered the practicality of doing cartographic research of an intertwined genre. In addition, the arguments of Kitchin and Dodge (2007) which highlight possibilities of bringing together technical and sociocultural cartography meant a fundamental criticism of critical social cartography could be addressed, that this, improving mapping systems to present citizens' worldview for practical engagement with state and non-state actors (Fox et al, 2005).

The research context in this thesis engages the cartographic history of Nigeria, the cartographic reasoning of the modern political state and the potentialities of citizen-based mapping. For example, Balogun's (1989) *Development of Mapping in Nigeria* is a cartographic history of Nigeria that provides an administrative and technical narrative of the colonial and post-colonial cartography in the empiricist tradition. Therefore, there is a need to engage cartography as a form of state knowledge, creating a sociocultural context for the progressive history of cartography as an instrumental knowledge that Balogun narrates so brilliantly.

In addition, Scott's (1998) *Seeing Like a State* examined legibility and simplification as distinctive tools of statecraft in transforming visions and social engineering of human conditions,

particularly on the agricultural landscape, which requires a contemporary geopolitical context. Hence, there is a need to draw attention to the ongoing state cartographic envisioning of the agricultural landscape in the post-neoliberal era, but also to engage continuities of customary maps or local spatial knowledge that contest state administrative grids highlighted by Scott.

Another inspiring motivation for this research was Wainwright's (2008) *Decolonizing Development* , which studied the Maya of Central America, examining the interconnection of colonial geographies, indigenous agriculture and the contestation of state power through counter-mapping. Wainwright skillfully examines the Maya Atlas as a work of postcolonial geography showing the mapping project as a site of struggle for land use. However, there is a need to add a dimension of cartographic struggles that seek to employ forms of counter-map to decolonise state cartographic gaze, contest neoliberal developmental imaginary and clarify subaltern agricultural imaginaries beyond the rights to land use framed to "remember and maintain traditions in the face of modernity" (Wainwright, 2008, 252).

The framing of agricultural development as a form of knowledge entwined with cartographic technologies in the transition of state-sanctioned capitalist modernity over time and its contestation by subaltern groups made this research a convincing need. Therefore, a critical postcolonial reading of state maps is very relevant to the framing of this study (Craib, 2017). In addition, in examining the connection between capitalism and development, there is a need to engage cartography as a dual form of knowledge as seen through state governmental discipline and subaltern resistance in moments of historical and cultural encounter (Crampton, 2010; Wainwright, 2008). Again, there have not been specific concerns in literature with the role of maps in the spatial ordering of the landscape through agricultural settlement schemes, nor the role of cognitive representations of settlement schemes as envisioned by subaltern groups.

These gaps form part of the excluded history of subaltern ideas in the post-colonial world that this thesis explores from a cartographic perspective. Also, in responding to this obvious gap, hybridised knowledge (re)production in cartography, as cartographic literature has shown, can draw from the potentialities of both social and technical cartographies to make visible anticipatory spatialities of subaltern imaginaries (Cinnamon, 2014; Fox et al, 2005; Kitchin and Dodge, 2007). Hence, there is a need to draw attention to the diverse opportunities for the counter-power of cartographies not aiming "for symbolic disruption" of state cartography but "rather as a movement constituting new forms of power for transformative change from below" (Satgar, 2021, np).

1.3 Problem Statement

In most parts of Nigeria, rural areas are unmapped. There is a lack of state maps necessary for spatial comprehension of rural areas (Ufuah, 2003). Of particular importance are general-purpose, state topographic maps of the rural hinterlands that are largely inaccessible and unavailable to the rural citizenry. Again, when obtainable, this topographic information is out-of-date and does not accommodate user content. A fundamental cause of this challenge has been the diminishing mapping activities and maintenance budgets of National and State Mapping Organisations in a post-colonial state embracing neoliberal policies that 'rolls back the state' from direct economic development (Coleman, 2013; Dodge and Kitchin, 2013). On the other hand, there has been a profusion of small-scale state maps in the post-neoliberal period, embedded in the neoliberal narrative (Radcliffe, 2009). In particular, there easier accessibility and availability through several media, for instance, social media platforms are playing a serious influence on the visual imagining of the agricultural landscape. Again, their diverse designs and consistent political-economic narratives are attributable to the advantages of digital cartography (Brouwer, 2019; Crampton, 2002b). This trend in cartographic practices reflects the increasing adaption of the market logic by the post-colonial state (Harvey, 2005a).

This situation hinders locally defined developmental initiatives (Briggs, 2013; Fabricant, 2012; Renne, 1997). In particular, the potentiality of developing community-owned farm settlement schemes. There is a paradox in the visual imagining of the rural agricultural landscape. On one hand, neoliberal forms of small-scale state maps reflect the promotional politics of the governing class (Mogues and do Rosarios, 2015). For example, these maps present a successful economic narrative of the state-spaces of agricultural production, becoming part of the basis for the inevitable vision of neoliberal development (Williams, 2021). On the other hand, when available the conventional forms of state maps continue to reproduce the Othering practices of colonial legacy (Edney, 1997; Radcliffe, 1996; Wainwright, 2008). For instance, there is the invisibility of indigenous agrarian identities such as the traditional farm village, which remains part of everyday life in rural hinterlands.

The misleading narrative of neoliberal versions of state maps and the denigrating discourses of conventional state maps work continually to effect anti-political economic imaginations of the subaltern agricultural economy (Walters, 2010). These visual discourses of state cartographies

ignore the everyday spaces of agrarian production, create a false impression of the state-spaces and assume that there are no alternatives to the neoliberal model of agricultural settlement schemes (Fabricant, 2012; Williams, 2021). Hence, these state discursive practices reinforce assumptions that spatial thoughts of subaltern groups are irrelevant or even non-existent. Hence, the conceptual imagining of a CFS is wedged between the challenges of conventional state maps and the neoliberal forms of state cartographic narratives.

In the context of bottom-up development, the inclusiveness of visualised spatial perceptions of the everyday agricultural landscape, state-space of agricultural production and the CFS are crucial in rural developmental dialogues (Potter et al, 2012; Sletto, 2020). In particular, the articulation of CFS imaginary is constrained, particularly without visualised geographical information. The undocumented alternative knowledges of the economic landscape hinder expanding the concept of CFS. In addition, there is an obstruction to citizen engagement with state, non-state and trans-state organisations and agencies because the communication of rural developmental concerns – perceptions and priorities – without some form of graphic format remains vague (Marshall, 2007; Sletto, 2020). Therefore, the lack of spatial information is a direct challenge to the aspirational development of CFS. In the contest of envisioning political-economic futures on the agricultural landscape, the lack of visualisation of subaltern ideas places them at a disadvantage compared to the cartographic power of the state-sanctioned capitalist imaginaries.

Hence, citizen-based mapping has a critical role to play in envisioning, archiving and advocacy of alternative production of space, particularly in the paradigm shift to CFS (Sletto, 2020). Citizen maps are crucial to spatial knowledge production of alternative futures (Beckert, 2011; Satgar, 2021). In particular, the visualisation of CFS through alternative mapping practices offers diverse approaches in collecting information relevant to community aspirations, resource planning and environmental management (Sletto, 2009). Again, citizen-based mapping provides a way to archive the visual expression of the everyday spaces of the agricultural landscape. In particular, citizen maps provide a visual form of archiving local spatial knowledge and counter-narratives to the singularity of successful neoliberal discourses of state-spaces of agricultural production. Besides, combined with cognitive map design, the citizen-mapping process offers ways of experimenting with topographic map production in furtherance of the transforming vision of the CFS. Advocacy for change from subaltern perspectives implies engaging the modern state where there is a need for hybrid maps and mappings (Cinnamon, 2014; Whatmore, 2002). Despite the

increasing use of citizen-based mapping in natural resource management, it is not often directed to people-driven, smallholder agricultural imaginaries of the rural economy (Honig and Mulenga, 2015). There is a need to examine the potential of citizen-based mapping in the agricultural hinterlands in the context of subaltern imaginaries.

Therefore, the important question is not just how to reinvigorate the farm settlement strategy through community involvement, but to examine the prospects of social cartography in the development of the community-owned farm settlement schemes. There is a need to engage this question within the context of political subjectivity, such that a rethinking and reshaping in development practice can inform negotiations for supporting, empowering and encouraging the paradigm shift to community-driven farm settlement schemes.

1.4 Thesis Aim and Objectives

Decolonising the knowledge claims of state agricultural narrative and its wider associated claim of the inevitable path of neoliberal agricultural development on the post-colonial landscape vindicates the use of citizen-based mapping. This state-sanctioned visual narrative has roots in the colonial past, which has consistently Othered local spatial thought in the discourses of development (Gregory, 1994; McGowan, 2014). For example, the Othering practices of colonial power tied to its capitalist economic ideologies were most injurious to the rural hinterlands (Bellone et al, 2020; Edney, 1997). In addition, the social production of physical reality by the state cartographic power contributed immensely to the challenges of economic development in the post-colonial landscape (Mitchell, 2003). On one hand, state power is deploying cartography as one of the several visual media in reworking the agricultural identity of the economic landscape to replace the welfarist notions of the agricultural settlement schemes with the logic of neoliberal agriculture (Benjaminsen, 2021; Huggins, 2013; Woods, 2011). On the other hand, there are emerging subaltern ideas of reinterpreting the state-owned agricultural landscape through verbally communicated self-defined spatial imaginaries (Fabricant, 2012; Olwig, 2022; Wainwright, 2008).

Hence, the decolonising of the dominant agricultural imaginary through verbal communication needs visual complements in the political-economic struggle emerging in the post-neoliberal period (Castellant and Diepart, 2015; Sletto, 2020; Weyer et al, 2019). To do this requires engaging colonial and early post-colonial state cartography as precursors in the wider spatial discourses of agricultural identity production (Bryan, 2015; Pickles, 2004; Pile, 1997;

Probyn, 2003; Radcliffe, 2012). Hence, engaging the post-colonial agricultural landscape in the colonial past and the (post)colonial present meant the need to denaturalise their cartographic production of state-space.

This study aims to explore the potential of citizen-based mapping in strengthening and expansion of community-based farm settlement schemes in northeastern Ibadan rural hinterland as an alternative to the colonial and post-colonial cartographic practices of state-owned agricultural settlement landscapes. The objectives include;

- understanding how state cartography and geographical knowledge production impacted economic modernisation through the development of state-owned agricultural settlement landscapes in colonial and post-colonial rationalities;
- understanding the social contest of agricultural landscape representations and the legacies of state agricultural settlement scheme and indigenous spatial knowledge in the formation of CFS aspirations;
- and exploring the possibilities of citizen mapping in the renegotiation of political subjectivity.

Therefore, how did colonial cartography (re)produce colonial and post-colonial governmental rationalities that constructed the agricultural landscape of southwestern Nigeria? How has multiple representations of space been reproducing the social production of the agricultural landscape? In what ways have the agrarian landscape been perceived by subaltern classes, its problems identified, and its solutions imagined and re-imagined? What counter-narratives are emerging in local geographies to the neoliberal agricultural visions of Oyo State, Southwest Nigeria? How has the settlement scheme been re-interpreted by the public? Can these local perceptions of the settlement scheme employ cartographic practices to clarify and give concrete form to the vagueness of the spatial thought of the community-owned agricultural scheme? What forms of alternative spatialities are unveiled in the visual discourses of community-owned farm settlement?

The visualisation of self-defined agrarian development highlights a research approach that engages with the experiences, opinions and feelings of the citizenry (Denscombe, 2010; Edwards and Holland, 2013; Kitchin and Tate, 2013). These are experiences rooted in the past and nurtured by continual interaction with capitalist modernity over time and space. Conversely, the

engagement with state representations as a precursor of this subaltern reinterpretation of the settlement scheme draws attention to the ethnocentric views of modernity (Watts, 2003). Hence, I adopted a qualitative methodology, which is concerned with social meaning, to explore this interconnected theme (Maxwell, 2008, 2013, Clifford et al, 2010). Using qualitative research, I approached the study from historical, comparative and ethnographic perspectives.

Historical inquiry in this thesis focused on the cartographic representation and the inherent map silences, which reproduced perceptions that vindicated modernist developmental interventions exemplified in the agricultural settlement scheme. I drew upon archival and historical sources to conduct historical map studies and cartographic discourse analyses of the agricultural settlement scheme (Creswell, 2009; Harley, 1988a). Comparative inquiry explored the histories and legacies of modernist and traditional representations of the agricultural landscape (Walliman, 2011), which influenced the emergence of the CFS. There were uses of historical, archival and ethnographic data to conduct this comparative landscape study (Black, 2003; Creswell, 2009; Hay and Cope, 2021). The ethnographic examination of the case study area involved ethnographic methods, which include interview sessions, focus group discussions and qualitative observation (Brown et al, 2017; Creswell, 2009; Denscombe, 2010) with citizen maps as the key spatial production, which visualises the farm village landscape, provide counter-narratives of state-owned farm settlement and clarify the verbalised imaginaries of the CFS.

1.5. Outline of the Thesis

The second chapter provides a research context and background for this thesis exploring theoretical and empirical literature. The theoretical framework views the post-colonial space as a social construction through a unified notion of spatial production, the concept of postcolonialism and as a form of governmentality. Consequently, there is a connection between cartography, as a form of governmental technologies and the production of post-colonial geographies. However, I contend that as a form of counter-power, maps serve the subordinate classes to challenge the totalizing tendencies of state-power. The empirical literature reviewed reveals that mapping has served as a political technology in conceiving colonial space and post-colonial landscapes. However, understanding the post-colonial state as a site of contestation where the actions of subaltern classes are crucial was important to the trajectories of the future of the state. Therefore, the political technology of cartographic practices becomes a site of contestation.

In the third chapter, I present the research methodology and specific analytical techniques employed in this thesis. The methodological approach is qualitative: qualitative research is concerned with social meaning and the impact of physical and social context on this meaning. In the second section, I explored the conceptual foundations of this methodological chapter. My particular argument is that representational practices of geographic knowledge production require a qualitative engagement to unravel the social meaning and their contexts. In the third section, I present my research design as a multi-method qualitative process. I framed the research design to examine the intertwined theme historically, comparatively and ethnographically. The fourth section discussed data collection and sources. The fifth section of my methodological chapter discussed the specific data analytical techniques I used in exploring specific research objectives. The sixth section explored my reflections on the theory, methodology and positionality as a researcher.

The fourth chapter explored the impact of state cartography on agricultural development in colonial and post-colonial rationalities. I argue that state cartographic representations are cultural practices implicated in the production and governance of the agricultural landscape. There are two parts in this chapter: a sociocultural history of state maps and the politics of state maps. The first part examined the production of state-space in the cartographic history of Yorùbáland, during the one hundred years of the colonial experience and its impact on the conception of the agricultural landscape. I contend that state cartographic production of space was not only a representation of physical reality but also the spatial production of capitalist modernity. The second part examined the power-knowledge effect of colonial maps in defining agrarian problems and solutions, and the resulting attempts of deploying post-colonial maps in the production of modern agricultural subjectivity and identity. I argue that the embedding of state cartography in the governing of space was an act of power-knowledge.

The fifth chapter examined the role of multiple representations in reproducing the different logics of the agricultural landscape. In addition, I explored the representational legacies of state agricultural settlement schemes and indigenous geographical knowledges in the formation of CFS aspirations in southwest Nigeria. My main argument was the emergence of CFS as a continuing attempt to contest the state's envisioning of the agricultural landscape. This attempt involves a subaltern cognitive repositioning of the farm village within the notion of *Agbe Oko d'Oko*, the settlement scheme. These locally defined settlement schemes draw from representations of

modernist and indigenous landscapes revealing a hybridised spatial knowledge. This hybridised geographical knowledge becomes a subversive tool against the persuasive work of neoliberalising the agricultural landscape. Specifically, I explored this argument in two sections. The first section examined in the post-independence era the legacies of modernist representations of agricultural settlement schemes. The second section explored the historical landscape of the traditional farm village. I emphasise that this indigenous representation of the farm village influenced the conceptualisation of the CFS.

The sixth chapter explored the interaction of the different logics of modernity and subalternity in the agricultural politics of visibility in Northeastern Ibadan rural hinterland. I argue that when these different logics interact in local geographies, subaltern classes contest the modernist rationalities of state-sanctioned neoliberal development through verbalised imaginaries. In this chapter, I examined the convergence of the legacies of the two representational knowledges in local geographies. I contend that the authoritative spatial knowledge of the state reproduces landscapes that offer opportunities for anti-political economic imaginations of subaltern agriculture. In particular, these authoritative maps continued to embed the political silence of agriculture, both previous social welfarist-style and traditional farm landscapes. However, representational legacies of modernist and subaltern knowledges are evident in the formation of community-owned farm settlement aspirations. Hence, I engaged the role of verbalisation in the subaltern rendering of counter-narratives of state settlement schemes and alternative landscapes. The verbalisation of CFS reveals a nascent social movement that exemplifies an aspirational space. However, this agricultural imaginary may not fully engage in the agricultural politics of knowledge without adapting the visualisation of space as a form of power.

The seventh chapter examined the possibilities of citizen-based mapping in the renegotiation of political subjectivity. I contend that deploying social cartography as a form of counter-power contest, rework and renegotiate the social production of the agricultural landscape. I explored social mapping in this chapter in three sections examining the externalisation of cognitive (re)presentation of everyday geographies of farm-villages, the counter-geographies of state-owned settlement schemes and the use of citizen mapping as a planning tool to clarify visually aspirational geographies of community-owned farm settlement. I argue that these imagined cartographies are forms of counter-power for transformative change.

In the eighth chapter, I conclude this thesis with a synthesis of my arguments. I argue that the alternative production of space provides visual insight into agrarian spatial thought. I contend that the dominant, naturalised state-space of agricultural production is a social practice. This production of state-space is an ongoing challenge in envisioning the agricultural landscape in the contemporary post-colonial state. In addition, the representation of the agricultural landscape, has consistently over the decades, been a site of contest between state agricultural rationality and the logic of subaltern agrarian knowledges. Nevertheless, there are possibilities for renegotiating subjectivities and identities through citizen-based mapping. Hence, I suggest visual geographies are crucial in advocating alternative futures. Besides, I propose that synthesizing subaltern imaginaries through cartographic map design offers an alternative world in topographic maps. These maps symbolise an additional transformative power of an aspirational space in the agricultural politics of visibility.

CHAPTER 2 THE PRODUCTION OF SPACE AND THE MAPPED LANDSCAPE

2.1 Introduction

This chapter presents the theoretical and empirical background of this thesis in two main sections. I contend that alternative spatial thought provides insight into the reimagination of the normative identity of the landscape. This normative and essentialist identity designates or standardises a particular way of representing the landscape as desirable, respectable and acceptable (Massey, 2005; Wylie, 2007). Conversely, alternative identities highlight the choice of representing the landscape in other ways revealing diverse possibilities (Crampton, 2010). The representational legacies of the economic landscape in the post-colonial space continue to influence the picturing of the ideas of the agricultural landscape. In recent times, the citizenry is reimagining themselves as political subjects. Indeed, the neoliberal governing model of diverting responsibilities to the individual intensifies this re-imagination of the political subject (Harvey, 2005a). As a result, there are renegotiations of agricultural modernity, which seeks to decolonise the future by bringing alternative ideas from the shadow to the limelight (McEwan, 2019). Spatial thoughts that emerge from the reimagination or reinterpretation of the normative landscape require an engagement with the understanding of space as a social production (Smith, 1990). Specifically, I argue that the neoliberal vision of the post-colonial agricultural landscape, as an inevitable path of development, is a social production of space by the governing classes.

In the theoretical framework, I argue that a post-colonial space is a socially produced geography. In this second section, I engage theoretical literature in spatiality, postcolonialism and governmentality (Lefebvre, 1991; McEwan, 2019; Elden, 2013). I contend that state production of space usually aims to cater for the capitalist interests of the post-colonial state. Therefore, the concept of spatiality interconnects notions of postcolonialism and governmentality to uncover the role of power and technologies in the social production of economic identities and subjectivities in the post-colonial landscape (Pickles, 2004). I emphasise that cartography as a state technology is implicated in this social production of space (Harley, 1988a). Cartographic power, as an ongoing colonial legacy, continues to serve the economic interest of governing class (Ryan, 2004). Nevertheless, the democratisation of mapping practices offers cartographic power to counter dominant visions and unveil subaltern imaginaries (Cochrane et al, 2014; Sletto, 2020). In the third section, the contextual framework engages empirical literature on socio-cultural cartography, political-economic geography, and development practice. I argue that state cartographic power is

aiding large-scale capitalist agricultural visions while disregarding concerns of smallholder agriculture in sub-Saharan Africa. This is evident in the connection between cartography as a political technology, a spatial frame of social engineering and the visual imagining of the agricultural landscape (Edney, 1997, Scott, 1998; Boone et al, 2021).

Agricultural landscape representations continue to mediate state-society relations on the post-colonial economic landscape (Benjaminsen, 2021). On one hand, the post-colonial state is reinterpreting modernist rationality of the Keynesian model through a neoliberal model to further capitalist development (Lawson, 2007; Williams, 2021). On the other hand, the emergence of the notion of Community-owned Farm Settlement Scheme highlights not only a re-imagination of the traditional agricultural practice but a reinterpretation of the modernist settlement scheme through this indigenous knowledge system (Briggs, 2013). These subaltern reinterpretations highlight local spatial knowledges, usually presented in verbalisations, engaged in a social contest with the visualisations of state agricultural imaginaries. Hence, how is the postcolony a socially produced geography? In what ways is cartography implicated in this socially produced geography? In what ways are maps and mapping redeployed to serve subaltern interests?

2.2. Theoretical Framework: Critical Social Theory and The Production of Space

2.2.1 The Postcolony as a Socially-Produced Geography

The Social Production of Space

In the contemporary postcolonial world, there is a representation of the neoliberal perspective of the agricultural landscape as inevitable for material development and social well-being (Castellanet and Diepart, 2015; Massey, 2005, 4). This idea of the inevitable path of development that characterises post-neoliberal agro-economic imaginary resonates with the spatiality of the colonial space, both of which intertwines as transitions of capitalist modernity. This transition commences with the age of imperialism or informal empire through the era of colonialism and the period of welfarism (Ashcroft et al, 2007; Clayton, 2009; Loomba, 2005; Woods, 2011). I argue that this neoliberal capitalist perspective is a place-based, social construction of the geographical space like other perspectives of space, for instance, local spatial knowledge. Geographical space, Neil Smith (1990, 107) asserts can be seen as a social product. Indeed, Barnes (2009, 690) describes the notion of social construction as "the idea that the social context of individuals and groups constructs the reality that they know, rather than an independent material world".

Also, Hacking (1999) argues that the basic premise of social construction is criticism against the inevitability of an idea. Therefore, the neoliberal capitalist visions of the economic landscape are not inevitable. Rather, it is an idea of the economic landscape that was socially constructed. Boghossian (2001) explain that for a thing to be socially constructed is to emphasise its dependence on contingent aspects of ourselves. In addition, Galbin (2014) contends that perceptions of the actual world are through our use of language in communication with others. Again, meaning is a construction based on a prevailing cultural frame of social, linguistic, discursive and symbolic practices. Hence, the notion of social construction challenges commonsense knowledge or taken-for-granted assumptions of the world we inhabit and ourselves (Galbin, 2014; Hacking, 1999).

The notion of space, a key concept in geographical sciences has diverse perspectives. Duarte (2017, 4) observes that geographical space is a very abstract concept but is the bedrock of other geographic concepts such as place, territory, region, landscape, etc. According to Agnew (2011), the term space came into use in seventeenth-century Europe but over the centuries, and particularly from the twentieth century onwards, the notion imbues various meanings enmeshed in the waves of different intellectual paradigms. Couclelis (1992, 216) contends that there are several conceptions of space underlying geographical knowledge. These conceptions are hierarchy of spaces including mathematical, physical, socioeconomic, behavioural, and experiential. In contrast, Harvey in his 1973 *Social Justice and the City* identified a tripartite division of spatiality as absolute, relative, and relational. Relative space refers to forms of spatial measurement depending on the observer's frame, while relational space views space as embedded in or internal to processes that define it (Harvey, 2006). However, academic debate, mainly between abstract space and relational space, has continued in the contemporary discourse of geographical theorisations (Agnew; 2011; Hubbard et al, 2002; Smith, 1990).

Abstract space is a geometric conception defined by a spatial measure on the terrestrial surface. It is based on the Cartesian viewpoint, which emerged from the philosophical inquiries of Descartes in the seventeenth century Europe, which reduce different aspects of social reality into discrete objects without consideration for their relational connectivity (Merrifield, 1993, 518). Ashcroft et al (2007, 202) explain, "this is the position referred to as 'Cartesian individualism', one that tends to overlook or downplay the significance of social relations or the role of language in forming the self". This analytical method sought a mechanical and mathematical representation

of reality by ordering phenomena in abstract space. The Cartesian viewpoint is an absolute, passive empty container, independent of material or physical phenomena (Sayer, 2000; Merrifield, 1993; Massey, 1994).

Essentially, the Cartesian perspective assumed a binary between the material world and the world of human consciousness. For instance, Smith (1990, 95) observes, "in the advanced capitalist world today we all conceive of space as emptiness, as a universal receptacle in which objects exist and events occur, as a frame of reference, a coordinate system (along with time) within which all reality exists". However, he asserts that this notion of abstract space is a social product. Besides, Euclidian geometry – is a product of practical human activity in ancient Greece (*Ibid*, 1990, 101-102). In contrast, in earlier societies and several societies in the Global South, there was no separation of space and place (Smith, 1990). Nonetheless, the European Cartesian model of spatiality is the basis of the formation of the postcolony in the Global south. With the coming of the post-positivist paradigm, there is an increasing conceptualisation of the geographical space as a social space. In contrast to the notion of space as empty container, Lefebvre (1991, 26) insist, "social space is a social product".

Lefebvre's *Production of Space* provides a starting point in this thesis to examine spatial relational thinking. Lefebvre (1991), employing a neo-Marxist perspective, sought a unified theory of space whereby the physical space, mental space and social space were viewed as interconnected and not separate entities on their own. The Lefebvrian approach to space argues that a combined examination of 'material objects or things in space' and the 'actual production of space' is not as separate notions but as inseparable aspects of the production of space (*Ibid*, 1991, 36-37). In other words, "space as a material product is a *present* space: a moment embedded in a multitude of intersections" (Merrifield, 1993, 523, original emphasis). Merrifield contends that, the moment is when the three spaces achieve a certain structural coherence, which manifest as place. Lefebvre (1991, 245) examined this complex interconnection of different spatialities through a conceptual framework of the representations of space, spatial practices, and representational space.

The representations of space refer to the conceptualised space of the technocrats in government, science and industry conceived and abstracted through the technology of sign systems, codifications, and objectified representations (Lefebvre, 1991). As a dominant and dominating model of space, it has ties to the relations of production and the 'spatial order', which those relations impose on people and the actual world. Hence, dominant models of spatiality

impose their 'order' on knowledge. This conceived abstract, objective or geometric space interconnects the capitalist modes of production and the technologies of the bureaucracy in the public and private sphere, often employed as a means of control and repression (*Ibid*, 1991).

Spatial practices refer to the conditioning of everyday experience in the use of space by people at home, work, leisure, etc. at different scales through their movement and perception (Lefebvre, 1991). It is the separation of different forms of constructed spaces and their linkage through human movement. Hence, it is a perceived space. Representational space is the space of everyday lived experience. This lived experience utilises the physical space through everyday activities and is associated with the symbolic use of its object. Usually, these lived-perceived spaces are the target of hegemonic practices seeking to impose order on them through rationalisation and codification of the abstract conceived space for the capitalist endeavour.

Although Henri Lefebvre's model (1991) explores European urban geography, the model is also applicable to sub-Saharan African rural geography. For instance, in this thesis, the notion of *Agbe Oko da Oko* [working and living on the farm] illustrates the tripod model of the conceived, material and social dimensions of spatial reasoning about the agricultural settlement scheme amongst the citizenry in southwest Nigeria. The mental space describes the formal abstractions of the state-owned farm settlement landscape. The existing farm settlement landscape refers to the biophysical space, and the social space is the practice that attempts to re-imagine or reinterpret the state-owned farm landscape through the aspirations of an alternative farm settlement landscape. However, Lefebvre (1991) did not address the capitalist construction of colonial and neocolonial spaces. Indeed, capitalist relations continue to produce active spaces for such neocolonial exploitation (Huggan, 1997).

In contrast to Lefebvre (1991), Harvey (2001; 2003) argues the dominant model of spatiality frames the support for capitalist production. Harvey (2001, 325) in the *Spaces of Capital* writes, "many a theory of imperialism asserts that the survival of capitalism into the twentieth century has been assured only through the transformation of space-relations and the rise of distinctive geographical structures (such as core and periphery, First and Third worlds)". Colonialist projects were forms of production of space, through violent dispossession of indigenous land and natural resources that creates an outlet for the capitalist system in solving the over-accumulation problem in the home country. Therefore, "class relations and struggles within a territorially bounded social formation drive impulses to seek a spatio-temporal fix elsewhere" (Harvey, 2004a, 68). So, the

notion of accumulation by dispossession can "be interpreted as the necessary cost of making a successful breakthrough into capitalist development with the strong backing of state powers" (Harvey, 2003, 154). This is the recurring logic of capitalist imperialism.

However, colonial capitalism in the (post)colonial space over time came to the point of spatial fix (Harvey, 2004b). That is the capitalist system provides fixed and immovable structures of the landscape, which bring profit but later become an obstacle to further profit-making. Harvey (1978, 120) asserts, "capital represents itself in the form of a physical landscape created in its own image, created as use values to enhance the progressive accumulation of capital. The geographical landscape, which results, is the crowning glory of past capitalist development. But at the same time, it expresses the power of dead labour over living labour and as such it imprisons and inhibits the accumulation process within a set of specific physical constraints". This particular notion of spatial fix describes a situation when capital "become territorialized and rendered geographically immobile through state commitments" (Harvey, 2004a, 65). The sustenance of capitalist production requires creating new geographies to maximise profit as they shift across physical space. Therefore, another notion of spatial-temporal fix sets to resolve the internal contradiction of over-accumulation in capitalism through geographical shifts, restructurings, and expansion (Harvey, 1982; 2001; 2004a). Harvey, (2004a, 76) notes, "capitalist social formations, often arranged in particular territorial or regional configurations and usually dominated by some hegemonic centre, have long engaged in quasi-imperialist practices in search of spatio-temporal fixes to their over-accumulation problems".

This capitalist reproduction of space results in and reinforces uneven geographical development. The notion of uneven geographical development refers to the production of spatial scales and geographical differences in material development between and within spaces produced by the capitalist system often backed by state power (Harvey, 2000, 75-78; 2006). Harvey's interpretation of Lefebvre's conceptual model in the context of capitalism contends that spatial practices meticulously meet the requirements of capitalism. Thus, any effort towards creating alternatives to capitalism in society demands a transformation of spatial practices (Harvey, 1990). Nonetheless, Harvey's neo-Marxist engagement with capitalist spaces focuses on macro-scale issues (Jones, 2016; Massey, 1994, 142) which might be inadequate to explore the specific ways of the workings of capitalism in local and micro-geographies. For example, Lefebvre (1991) argues that there is the need to reclaim the everyday, lived space through class and social struggle from

the uneven capitalist space produced through dominant spatial practices. This social struggle implies an understanding of space as 'processual' (Massey, 1994).

The central argument of Massey (1994) in *Space, Place, and Gender* is that space is a process, formed out of social interrelations. She rejected the notion of space as an absolute independent dimension, static and devoid of effect or implications. Massey argues that spatiality as social relations 'stretch-out' reflect multiplicities, difference, and alterity. The multiplicities of social relations imply "the existence in the lived world of a simultaneous multiplicity of spaces" (*Ibid*, 3). In addition, the possibilities of alternative spaces reveal the difference in the use or constitution of place. Furthermore, this conceptualisation of space is open and indefinite in its future change and transformation. She argues "that social relations are never still; they are inherently dynamic" (*Ibid*, 2). Besides, spatiality, as constructions of social interrelations, is applicable "across all spatial scales" (*Ibid*, 4). This theorisation of space privileges the roles of time and place, as a site of social action. She emphasises space is integral with time and we should "think always in terms of space-time" (*Ibid,* 2). This implies that the notion of place, as Massey (1994, 5) contends, "is as a particular articulation of those relations, a particular moment in those networks of social relations and understandings". This spatio-temporal understanding of place also applies to the natural landscape. Nevertheless, Massey, insist in *For Space* (2005, 140), that her alternative understanding of place upheld the uniqueness and distinctiveness of place.

The social processes that make up the repetitive constitution of place contribute to the construction of identity and subjectivities (Massey, 2005, 139). Massey argues that there are similarities in the construction of personal identity, political subjects, and the identity of place. She argues that the construction of the subject within places is an integral part of the identity formation of a place. In addition, there is an interconnection between gender relations and identity formation. Hence, a gendered place contributes to the identity of individuals and social groups. Furthermore, the pluralities of social relations that constitute place meant the need for negotiations of multiplicities in space (2005, 141). As she observes, places are ongoing stories. Hence, social contests and negotiation are integral to the sense-making of places on the physical landscape.

Merrifield (1993) argues that Lefebvre's conceptual triad did not precisely account for the interrelationship between the three spaces. Of particular importance is the role of the physical space in the social and political conception of space. Hence, what is the relationship between the lived-imagined, social space, the objectified-conceived, mental space, and the perceived-spatial

practices, physical space? Howarth (2006, 115-116) citing Sayer (2000) contends that the physical space is a subcategory of the social space because the physical space is a subset of any order that produces a structural regularity between material objects. Also, Smith (1990, 105) asserts that "geographical space was not simply an objective structure, but a social experience imbued with interwoven layers of social meaning; objective space was only one among a number of social conceptions of space". In this relational thinking, Howarth (2006, 116) argues that "the objective measuring of the distance between points, the peculiar shape of space, the abstract arrangement of space (s) (what Heidegger calls "the homogenous space of Nature") has to be relativized, and then connected, to the subject and its practices, and thus ultimately to particular social and political spaces". Therefore, the social-defined portions of the earth surface embodied in the notions of territory and landscape, endow social meanings on the physical space, which are also subject to temporal changes.

The concept of spatiality is integral to the notion of time (Massey, 1994), defined first as absolute time, which refers to exact measurement by the watch (Strohmayer, 2009), and second, as relative time, which refers to "the length of time prior to or has elapsed from a specific spot in the temporal domain" (Dai and An, 2018, 303). Lefebvre (1991, 12) notes that the concepts of energy, space and time, "can be neither conflated nor separated from one another". He contends that physical reality or the material world "to which humanity with its consciousness belongs, has properties that can be adequately summed up by means of the three terms mentioned above" (*Ibid,* 12). For example, to evoke the notion of space is to induce or indicate what occupies it and how it is occupied, which implies "the deployment of energy in relation to 'points' and within a time frame" (*Ibid,* 12). However, Lefebvre did not explore the role of the timeframe in the spatiality of political economy. To illustrate, Herod (2020, 121) contends that the conceptualisation of time "has implications for understanding political economy". Whereas time conceived from the absolute perspective implies history, a perspective from relative thought, "tends towards a view of time as process" (*Ibid,* 123). Thus, the first view charts linear stages of economic development while the latter is non-teleological thinking of the economic events on the landscape. Thus, the spatio-temporal settings of sociocultural practices shape the meaning, experience, and organisation of the economic landscape in the post-colonial state.

Postcolonialism and the Social Production of Space

The notion of postcolonialism refers to "a critical politico-intellectual formation that is centrally concerned with the impact of colonialism and its contestation on the cultures of both colonising and colonised peoples in the past, and the reproduction and transformation of colonial relations, representations and practices in the present" (Gregory 2000, 612). Postcolonial theorists argue that colonialism is an ongoing legacy in the making of the contemporary world (Blunt and Wills, 2000; Ryan, 2004; Sidaway, 2000). Hence, there is a critical contestation of colonialism and its legacies. Therefore, I contend that the neoliberal view of the inevitable spatial organisation of the economic landscape is a continuation of colonial capitalist logic in the post-colonial present. For example, the introduction of farm blocks as a profit-making venture in the hands of business elites reproduces the cash crop production-oriented agricultural settlement schemes of the late colonial period directed by top state bureaucrats (Fabricant, 2012; Fuchs, 2020; Harvey, 2005a). Huggan (1997, 22, original emphasis) argues that "the term postcolonialism… could be argued, has arisen to *account for* neocolonialism, for continuing modes of imperialist thought and action across much of the contemporary world".

Postcolonial theory offers key insights into the social production of post-colonial geographies (Huggan, 1989; Loomba, 2005). For instance, in this thesis postcolonial geography draws attention to the connection of the colonial past and post-colonial present; first, challenging taken-for-granted knowledge of the post-colonial present; second, highlighting difference and recognising its marginality; and third, insisting on the inclusion of silenced voices and visions (Abrahamsen, 2003; Nayak and Jeffery, 2011; Radcliffe, 1997, 2017). Abrahamsen (2003) argues that postcolonial thinking reveals the connections between the colonial past and the (post)-colonial present in the way in which the two produce and reinforce the identity of each other. To illustrate, Alemazung (2010, 62) argues, "the foundation for failure was laid in Africa during colonialism and is sustained through colonial legacies with the accomplice of African elite leaders". He drew attention to the manipulation of foreign aid, the staunch support for tyrant rulers and the undermining of democratic attitudes, which had roots in the colonial period (Eicher, 2003; Mamdani, 2018). Therefore, Abrahamsen (2003, 197) posits the interconnections stem from a deep concern "with the role of power in the formation of identity and subjectivity and the relationship between knowledge and political practices". In addition, she observes that postcolonialism is an "explicit political commitment to the marginalized" and its attempt at recovering "the subject-position of the subaltern" (*Ibid*, 197).

Taken-for-granted geographical knowledge of the colonial space remains integral to political-economic practices in post-colonial states (Radcliffe, 1996). Robinson (2003a) contends that the taken-for-granted experiences of everyday geographies are cultural constructions. For example, Fuccaro (2015) reveals from the study of the *The Gazetteer of the Persian Gulf, Oman and Central Arabia*, that colonial knowledge production in the early twentieth century, endowed the Persian Gulf region, with a geopolitical existence, because of the territorial politics of the British Indian Empire. This knowledge production continues to have an impact in Southwest Asia and the Indian subcontinent. Similarly, Boelens et al (2019) examined the embedding of mega-hydraulic projects in knowledge construction and the contestation of that knowledge locally and globally. In these knowledge contestations, they argue "modernist epistemic regimes tend to subjugate other knowledge systems and dichotomize 'civilized Self' versus 'backward Other'; they depend upon depersonalized planning models that manufacture ignorance" (Boelens et al, 2019, 1). Hence, Robinson (2003a, 404) asserts that challenging this commonsense knowledge embrace a way to "transform the ethics, politics and geographies of scholarly engagement".

The recognition of cultural differences emphasises its varied consequences and the remedial actions of its negative aspects (Loomba, 2005; Zein-Elabdin, 2011). McEwan, (2003, 408) notes that difference in lived experiences and meanings are evident "in tradition, culture, personality, beliefs and desires". To demonstrate, Meredith (1998, 3-4) argues, "any future reinventing of Aotearoa/New Zealand and any reconstructed sense of nationhood and identity", needs to embrace a hybrid strategy, which offers possibilities that avoid the politics of binaries and polarities. McEwan (2003, 409) observes that the challenge of cultural difference is, "to transcend the colonising boundaries of modernist discourse, which demands the recognition of difference and the multiplicity of axes and identities". Hence, Nayak and Jeffery (2011, 472) observe that postcolonial work has attempted to include "silenced voices of non-Western subjects and provide new forms of knowledge and experiences". For instance, Segalo, Manoff and Fine (2015) examined the Intuthuko embroidery project in South Africa, which offered silenced voices of marginalised women a way to express their lived experiences as a form of counter narrative to the single story of policy-makers. The exclusion of subaltern voices often had its historical roots in the state of indigeneity (McEwan, 2019; Radcliffe, 1997).

The notion of subaltern denotes the subordinated and marginalised classes. "It is used in postcolonial theory", as McEwan (2009, 16) explain to refer "to those who have no access to

processes of cultural imperialism, which locates them in a space of difference (or 'alterity')". Hence, subaltern groups in this study refer to the subordinated classes who do not share views of the governing class and their spatio-economic imaginaries. Usually, subaltern geographies are hybridised indigenous knowledges offering alternative visions in the post-colonial present (Grosfoguel, 2011). The concept of indigeneity refers to socio-spatial practices that distinguish indigenous people from dominant universals (Radcliffe, 2017). In a postcolonial context, it draws attention to the "logic and reality of everyday practices of communities at the local level" (Brigg, 2013, 239) – as a component of subaltern knowledges. The notion of everyday geographies refers to daily actions and events in micro-spaces of ordinary people, necessary in the fulfilment of social and biological needs – their personal geographies (Loomba, 2005; Massey, 2005; Rigg, 2007). One challenge of subaltern geographies has been the idealisation and reification of indigenous knowledges (Radcliffe, 2017).

There has been criticism against postcolonial theory, particularly the issue of textualism, in which several scholars argue that postcolonialism fails to "connect critiques of discourse and representation to the lived experiences of postcoloniality" (McEwan, 2003, 4). In addition, Clayton (2003, 364) contends that there are interpretative problems because "otherness is dealt with through the determining pressure of western discourses. The colonial world is deconstructed according to the word of the west". Nevertheless, Nayak and Jeffrey (2011, 474), following Spivak, draws attention to engaging "alternative dialogues that listen to and work alongside the silenced subaltern subject". Similarly, as Ryan (2004, 478) observes, the commitment of geographers to examine spatio-temporal phenomena offers a framework to position the "often abstract debates of postcolonial studies within specific historical and geographical settings". Therefore, they can simultaneously engage the material and symbolic dimensions of colonial legacies.

Postcolonial geographical framework examines not only received geographical knowledges but also attempts to write a history of the geographical present (Clayton, 2003: Creswell, 2013; Loomba, 2005). For example, Radcliffe (1996, 23, original emphasis) examined the geographies of Ecuador highlighting that "colonial images are currently being reassigned and reworked by individuals and groups *within* the postcolonial societies" Therefore, an engagement with the production of space, territories, and geographies in the (post)colonial present should involve

examining the colonial past (Harris, 2008; McEwan, 2019). In this study, I engage these postcolonial processes through the spatial production of otherness, hybridities and subjectivities.

Othering is a process that involves the identity-formation of the self while creating the Other (Clayton, 2003; Mountz, 2009). This exclusion of the Other involves the creation of the boundaries or margins of the self. Hence, Otherness is the state of being an 'Other' (Hubbard et al, 2002, 118). The social practices and processes of Othering characterise colonial contact, which applies not only to humans but also to non-human elements of the landscape. Spivak (1985, 271) argues that otherness concerns "the fabrication of representations of historical reality". Again, she noted that othering is conducted through diverse methods in colonial discourse, which produce the Other as subordinate. Besides, there are psychological and social dimensions of othering (Sithole, 2014). Sithole explains, as a psychological dimension, the 'self' construct its own identity by differentiating from the Other. Sociologically, the process of othering excludes, marginalises, and differentiates, particularly through the denigration of the other. These social dimensions are evident in geographical and economic contexts.

Geographical othering draws attention to the location of a person, group of persons or an area "outside of the centre, on the margins" (Mountz, 2009, 328). For example, Spivak (1985) identified three forms of othering employed by British colonial power in India. These are the establishment of mastery over space while producing the other as a subordinate, the ascription of the other's inferiority and knowledge as a character of self rather than of the other. The first form of othering involves "The worlding of a world on uninscribed earth", which highlighted the concept of worlding (Spivak 1985, 253). The notion of worlding involves the production of the colonised space, as "essentially constructed by Euro-centrism" (Ashcroft et al, 2007, 225). Eurocentrism is defined as "the conscious or unconscious process by which Europe and European cultural assumptions are constructed as, or assumed to be, the normal, the natural or the universal" (*Ibid*, 81). Again, Driver (2012) shows that in the production of knowledge in the age of European exploration, the agency of indigenous guides and informants were often invisible. These hidden histories reinforce the Otherness of non-Europeans in geographical knowledge production. In addition, Sibley (1995) argues in *Geographies of Exclusion*, that this inscribing of colonised space in any colonising discourse employs several discursive techniques, including cartographic mapping.

Indeed, an Othered and marginalised economic landscape could emerge within a discursive framework "predicated on the needs and capacities" of a dominant colonial power such that indigenous agrarian identities "tend to be hidden from view" (Dyck, 1995, 318). For instance, Mountz (2009, 329) notes that the production of colonial space is often the foundation of territorial economic othering as the colonising power narrates an 'Other' "whom they….extract resources through colonisation". Hence, Harvey (2003, 141,151) argues, "we might say that capitalism necessarily and always creates its own 'other'". In my view, this is evident in the patrimonial capitalist development in post-neoliberal Sub-Saharan Africa. For example, Huggins (2017) demonstrated a micro-geography of agricultural production in Rwanda managed by state strategies that balance the statist desire to control and the discourse of entrepreneurship. Thus, the idea of neoliberalising the economic space by post-colonial state power is a continuation of othering in the (post)colonial present.

The concept of hybridity refers to a cultural mode resulting from the integration of cultural signs and practices from the colonising and colonised cultures (Ashcroft et al, 2007; Bhabha, 1994). Homi Bhabha's (1994) postcolonial analysis of hybridity illustrated *specific moments* in colonial encounters whereby there is an emergence of "interdependence and mutual construction of subjectivities" (Ashcroft et al, 2007, 108). From this process of hybridisation, emerge new forms of knowledge, cultural difference, and sites of power (Bhabha 1994). This emergence of transcultural or hybridised identity disproves the hegemonic posturing, hierarchical framing and the politics of exclusion of dominant colonising cultures. Hence, the concept of hybridity offers a model for rethinking the "active moment of challenge and resistance against dominant colonial power" while the emerged transcultural entity "connotes a subversive multiplicity and progressive agency" in the process of social change (Ashcroft et al 2007, 110; Lu, 2000, 20). The concept of hybridity arises in different forms and dimensions. Indeed, the processes of hybridisation on the economic landscape involve an overlap of these forms.

The spatial, temporal and economic strands of hybridity offer an understanding of the development of agricultural institutions in the post-colonial space. Radcliffe (1997) argues that there is implicitly a spatial assumption in the notion of hybridity. She contends, "geographies of hybridity can be defined … as operating via continuously transformed social relations in a diverse range of places (locations, sites) and via spaces (flows of images, goods, people)" (*Ibid*, 14). To illustrate, exploring the histories and geographies behind indigenous clothing in Ecuador, a visual

referent of a representational economy, Radcliffe (1997, 10) employed the notion of hybridisation to contend that contemporary indigenous and gender identities challenge and disproves "taken-for-granted boundaries around spaces, whether bodies or nations". This is evident in ongoing social relations at specific places or different geographical scales drawing attention to hybridised identities of post-colonial agricultural landscapes (Fabricant, 2012).

Nevertheless, the conceptualisation of hybridity with a spatial dimension ought to be complemented with emphasis on the *specific moments* of colonising encounter (Bhabha, 1994). For example, in a comparative examination of Vancouver urbanism in Canada between the early and late twentieth century, Lu (2000) highlights the obvious changes in the spatial forms of hybridised landscape. She argues for "an appreciation for the weight of historicity" of the development of the hybridised landscape (*Ibid*, 21). Lu (2000) emphasises the need to privilege localised and plural histories with a temporal dimension of hybridity. Therefore, Whatmore (2002, 6) stresses that hybrid geographies reflect, the "multiplicity of space/times generated in/by the movements and rhythms of heterogeneous association". Since, our world is constituted out of relations (Massey, 1994; Whatmore, 2002), a particular part of social interaction is economic hybridity.

The notion of economic hybridity, as employed here, draws attention to forms of non-capitalist economic organisation co-existing with the dominant capitalist model of production on the post-colonial landscape as well as being characterised with hybrid features (Mitchell 2005, 192). Gibson-Graham (1996) argues for disrupting the hegemonic representation of capitalist authority and its strength by employing the notion of hybridity in the context of political economy. The economy, scholars contend, is a site of difference (St. Martin et al, 2015). One way of doing so, Watts (2003, 445) contends is through engaging local knowledges. I use local spatial knowledge to refer to know-how that is a mixture of indigenous and Western science-based knowledge systems (Briggs, 2013; Treakle, and Krell, 2014). To illustrate, Fabricant (2012, 105) in her *Mobilising Bolivia's Displaced* examined the alternative models of production of the Landless Peasant Movement (MST), which had a vision of farmer-driven, small-scale agricultural production, "while at the same time being economically viable and ecologically sustainable" (Fabricant, 2012, 105). These economic models took inspiration from the indigenous agroecological concepts of *Ayllu, Ayni* and *Minka*. These cultural models were re-appropriated "as forms of resistance to Western-derived, large-scale agroindustrial production" (*Ibid*, 107).

Although visual perceptions of local economic landscapes seem separate, subordinate or non-existing by modernist economic representations, I contend that the presence of multiple economic spaces reveals a hybrid post-colonial landscape (Fabricant, 2012; Whatmore, 2002). As a result, there is a need to engage the spatio-temporal dimension of hybridity to understand how subalterns' feelings, thoughts and actions – their perceptions and practices on the landscape have contributed to the contestation of dominant modernist economic imaginaries.

Subjectivity – knowledge practices – of the 'Other' emerges from the ideologies of the colonising self (Ashcroft et al, 2007; Loomba, 2005; Sithole, 2014). In the process of othering, as aforementioned, the 'self' constitutes the identities not only of itself but also of the Other in an unequal relationship. As a result, the notion of subjectivity intertwines with the concepts of identity, self, person and body (Pile and Thrift, 1995). Subjectivity is conceptualised as fluid, plural, porous and constructed from outside, in opposition to the Cartesian individualism that conceived the subject as a self-knowing, fixed, universal, autonomous, static being (Holloway et al, 2018; Probyn, 2003). Postcolonial theorising posits that the subject is not much about the form of being but a permanent form of becoming (Holloway et al, 2018; Massey, 1994; Savransky 2012, 192). Therefore, the continuous state of subject-formation is a "reiterative performance of norms" (Savransky 2012, 193).

The broader conceptualisation of subjectivity offers different theoretical approaches to "the production of the human subject through ideology, discourse, or language" (Ashcroft et al, 2007, 202). "Studying ideology", Maynard (2013, 12) notes, "is fundamentally about examining how actual people think". For instance, Probyn (2003, 291) following Althusser, understands, "ideology as sets of practices which engage us, and in which we are always engaged". This performativity of norms, she argues is "stitched into us through our everyday day practices" (*Ibid*, 292). Probyn further explain that what is and what becomes 'normal' to us are ideas that are repetitive through the practices defined by ideological apparatuses and in individual practices. Again, discursive apparatuses as particular systems of knowledge reveal the social construction of subjectivity (Holloway et al, 2018). For example, Browne (2006, 288) and Gibson-Graham, (1996) notes that capitalism as a system of domination is constituted as systematic, rational, lawful, real, and positive thereby conferring fixed identity and meaning to subjects.

In addition, the language in which the subject expresses itself is not pre-existing reality but the production of systems of differences (Ashcroft et al, 2007, 204). For example, Ting (2008) in

her examination of the social production of nationhood emphasised the role of symbolic language as mediating device in the production of the subject. Nonetheless, Kelly (2013, 516) contends concerning discourse and language that "there is no logical contradiction between these approaches, however: we can claim that human beings have both established psychic structure and variable practices. These are just two different approaches, one historical, one biographical". There are overlaps in the three approaches.

This study's engagement with post-colonial subjectivities through the notion of space involves not only how forms of subjectivities and identities are "made possible through normative codifications of space" (Savransky 2012, 194) but also the practices of recovering the Othered self (Sibley, 1995, 26). Bradley (2013), following Butler (1997) and Lefebvre (1991), contends that the subject embodies space through repetitive performance. Indeed, Bradley (2013) demonstrated in his study of community housing organisations in England how subalterns contest the disciplinary power of state-endorsed rationality of localism. He shows that in the exercise of their agency, subalterns were able to evade these local regulatory subjectivities as they reveal a desire for political (re)ordering of space. Conceptualising social space through repetitive practices reveals fluidity and instability of subject-formation. Hence, the opportunity for alternative spaces exists in the fluid process of production and reproduction of the normative codifications of space. For example, Lefebvre's (1991) conceptual triad shows that fluidities in the reiterative practices of each mode of spatial production (conception, perception, and lived experiences) afford these openings or potentials to challenge as well as change the normative.

Indeed, Lefebvre (1991, 39) emphasises the reiterative change in the lived space where "the imagination seeks to change and appropriate". In addition, Harvey (1989) contends that the potential for re-subjectivation, as aforementioned, must be in the realm of spatial practices. Again, Massey (1994; 2005) in her argument of the role of place in the construction of identity showed the potential to challenge and transgress the normative codification of space in the ongoing shifts in place meaning and negotiation of subjectivity through political action. To illustrate, Lim (2017, 1) showed the activation of the political subjectivity of the Cambodian people, which occurred in resistance to the state, as they attended the funeral of a government critic, "making visible what the government had wanted to keep invisible". He contends, "If they had not already been political subjects their involvement in this act of dissensus served as their subjectivation, transforming them from objects into subjects of politics" (*Ibid*, 1). Human action, according to Pile and Thrift (1995)

in *Mapping the Subject*, is derived in practice – one of the pathways of mapping a subject. Therefore, I contend that ordinary people, the subaltern, can respond to the othering practices of state-backed neoliberal capitalism.

Governmentality in Post-Colonial Spaces

Governmentality or governmental rationality is the governance of a mentality: a commonly held view or ideas by which societies are organised and governed to achieve or fulfil certain aims through a variety of discourses (Ettlinger, 2011; Kitchin et al, 2011; Rose-Redwood, 2006). There are two aspects of this art of government: political rationalities, the philosophical background of government, and the technologies of government that transform political rationalities into practice and reality. Corona (2006) defines political rationality as coherence manifested between political actions and political principles. On the other hand, the technologies of government operationalise political rationalities through specific techniques of calculation such as surveys, architectural designs, censuses, cartography, etc. (Rose-Redwood, 2006).

Fundamental to the characterisation of governmentality, is the conception of power, knowledge, discourse, and relational space. The notion of power is about a productive practice, a form of guidance that shapes "the possible field of action of subjects" (Foucault, 1988; Lemke, 2000, 3). For instance, Airriess (2005) showed how disciplinary power used by the British Hong Kong administration cultivated pro-government loyalties amongst the refugee farming population from Communist China in the colony. Thus, there is a distinguishing between this notion of power and the idea of domination (Abrahamsen, 2003, 198). Closely associated with this concept of power, is the idea of knowledge in service of power groups or groups, producing truths and rationality. As Crampton (2010, 15) notes, "knowledge does not just exist 'out there' but is created and then is privileged by being divided between truth and falsity". Therefore, the notion of 'power/knowledge' "refers to the ways that knowledge production is embedded in and essential to social relations of power" (Harris and Hazen, 2006, 101). By way of example, Harris and Hazen (2006, 105) examined the knowledge produced through conservation mapping which has "a tendency to take people's relationships to environments as fixed and invariable".

Similarly, power/knowledge is associated with the notion of discourses, which refers to the socially constructed ways through which forms of knowledge are structured and accepted as normative concerning a particular topic or social activity (Rose, 2016; Hall, 2009). For example,

Brouwer (2019) explored the 'Mobile Agriculture' discourse in Kenya framed by the digital divide, information age and digital modernisation to maintain itself as a normative way of supporting farmers. A particular feature of a discourse, as Van Leeuwen (2005) notes, is its plurality, whereby there are different ways of knowing and representing the same object of knowledge. For instance, there are neoliberal and subaltern economic discourses of the same biophysical landscape (Williams, 2021). Power, knowledge and discourse enable another basic conceptualisation of governmentality, the idea of 'governance at a distance' (Elden, 2007b). This is the governing effect that materialises in societal norms of everyday practices – the process of normalisation (Ettlinger, 2011; Legg, 2007; Ting, 2008). For instance, Hannah (2000) demonstrated in *Governmentality and the Mastery of Territory* the deployment of these notions in the logic of social control in nineteenth-century America. He emphasises that one of the fundamental aims of this regulatory control was "the struggle to redesign education for modern manhood" (Hannah, 2000, 189). Thus, the notion of relational space is integral to governmentality.

Elden argues that in the works of Foucault governmentality was concerned with organisation and politics of space revealing the intertwined themes of territory, population and economy (Elden, 2007b). Elden (2013) in *The Birth of Territory* examined the notion of territory in a historical setting contending that it is a political technology. However, he saw the notion of political technology beyond the narrow sense of techniques such as geometry, land surveying, and cartography but a broader one that involves the very arts of governance. For he argues, following Heidegger, "the essence of technology …is a way of grasping and conceiving of the world" (Elden, 2013, 16). Therefore, he contends further that:

> Territory is not simply an object: the outcome of actions conducted toward it or some previously supposedly neutral area. Territory is itself a process, made and remade, shaped and shaping, active and reactive. ….. The idea of a political technology seeks to capture the processual, multiple, and conflictual nature of the bundle of political techniques—in that expanded sense—that make up and transform the contested and diverse notion of territory. Territory cannot simply be understood as the political-economic notion of land, nor even as a political-strategic sense of terrain, but instead comprises the techniques used to—among other elements— measure land and control and manage terrain.

Elden (2007a) notes that a Foucauldian perspective offers an understanding of the relationship between governmental practices and territory. Thus, "the strategies applied to territory – in terms of its mapping, ordering, measuring, and demarcation, and the way it is normalised, circulation

allowed, and internally regulated – as themselves calculative" (Elden, 2007a, 578). Therefore, he concludes that the "territory is more than merely land, but a rendering of the emergent concept of 'space' as a political category: owned, distributed, mapped, calculated, bordered, and controlled" (*Ibid*, 578).

In addition, the notion of population encompasses both the governance of a population by the state and the governance of the self by the individual or group (Ettlinger 2011; Red-Redwood, 2006). Elden (2007b, 30) notes Foucault's primary concern was to understand the mode of governing populations. These biopolitical engagements draw attention to notions of biopower and disciplinary power. Disciplinary power aims at detailed regulation of the individual body, while biopolitics sought to regulate and manage entire populations (Rose-Redwood, 2006; Wallenstein, 2013). For example, Rose-Redwood (2006) showed geo-coding, such as the house-numbering system, used by non-state actors as a biopolitical technique of government. This geo-coding was a prerequisite for the larger biopolitical project of census-taking and mapping since the eighteenth century in the U.S.A. By contrast, Hoffmann and Verweijen (2018, 1) reveals the disciplinary techniques of power such as ethnicity, spirituality, stateness and protection used by non-state actors ruling parts of the eastern Congo (Democratic Republic of Congo), and how they sought to shape "people's subjectivities and self-conduct". Disciplinary power complements biopower (Ettlinger, 2011, 546). A continuous combination of the features of biopower and disciplinary power highlights the idea of modern power in state-society relations (*Ibid*, 547). One of the reasons for the importance of governing the population was its value in the analyses of political economy (Elden, 2007b, 31).

Political rationality, a way of doing things that were oriented to specific objectives (Rose et al, 2006; Rose et al, 2009), was manifest at different times in the post-colonial state. The rationalities of imperialism, colonialism, welfarism and neoliberalism are periodisation of styles of thought characterising the art of government in the post-colonial space. Therefore, at different or *specific moments* in the history of the postcolony, these governmental rationalities have influenced or organised the modes of political-economic thought (Lu, 2000; Rose et al, 2009). The concept of imperialism refers to the ideas and practices in a domineering geographical-economic relationship between a metropolitan centre and its elite and distant lands and people (Clayton, 2009; Ashcroft et al, 2007). On the other hand, the notion of colonialism, a consequence of imperialism, is the subordination or subjugation of distant lands and people to the metropolitan

centre by political domination and economic dispossession of the indigenous population (Mamdani, 2018; Scott, 1998; Young, 2001). Welfarism is a view that the well-being of the individual is a state obligation (Woods, 2011). The neoliberal theory proposes that all human activity is a commodity and organising these activities through a market logic was the best way of advancing individual well-being (Harvey, 2005a; Williams, 2021). These rationalities have sought consistently to organise the political-economic landscape in the post-colonial state.

The territorial-economic conquest of colonialism ushered in the ideas of modernity that became co-terminus with the notion of Eurocentrism (Ashcroft et al, 2007). Modernity is a concept that "focuses upon the transformation of social relations related to the emergence and domination of capitalism in its successive forms – from early urban industrialisation to advanced capitalism, and on to neoliberal and global capitalism" (Potter et al, 2012, 66). Hence, modernity implies a notion of development conceived as the advancement from irrationality, despotism, poverty and ignorance to rationality, democracy, material wealth, and civilisation – which the instrument of capital and state governance can facilitate (Kennedy et al, 2016; Kippler, 2014). Holloway and Hubbard (2001, 22) define capitalism, "as a system of economic production, which thrives on the inequality and uncertainty arising from its continual need to develop production forces – labour power, raw materials, machinery, [and] transport – to make commodities, which can be sold at profit". This growth-oriented economic process strives for commodity production "so that corporations [can] accumulate capital" (Fuchs, 2020, 115). Hence, capitalist modernity refers to the continuous transitions of material development through capital with the assistance of state power, as opposed to the Other – stagnant, backward societies (Ashcroft et al, 2007; Boelens et al, 2019; Potter et al, 2012). As a state-sanctioned economic ideology, capitalist development strives to be the dominant culture in the post-colonial landscape.

Technologies of government are specific techniques or programmes used in the activating and actualisation of governmental rationalities (Crampton, 2010). Foucault discussed four main types of technologies but noted they "hardly ever function separately" (Foucault, 1988, 19). Of these technologies, Foucault (1988, 19) observes, "technologies of sign systems…..permit us to use signs, meanings, symbols, or signification". Language and sign systems are discursive apparatuses essential to governing individuals and populations. For example, visual and oral practices are discursive apparatuses in several human societies. Danesi (2004, 96) notes, "Language is a mental code. It is a system of signs commonly delivered as vocal speech; but it can

also be expressed through other physical modes – through pictography, gesture, and so on". Indeed, Tversky (2000, 72) argues, "Written language is prominent among useful cognitive tools, but graphics of various types preceded written language and serve many of the same functions'. Hence, a sign system such as visual representation is integral in the governance of several human societies.

Visual practices involve the use of material images. For instance, paintings, sculptures, maps, architecture, photography, satellite imagery and so on, to make visible themes of concern in the social world. Rose (2001, 6) define the concept of vision as "what the human eye is physiologically capable of seeing", while the concept of visuality "refers to [the] way in which vision is constructed in various ways". That is visuality is "the cultural counterpart of the sense of sight" (Brighenti 2010, 3). Brighenti (2010, 3) contends, "visibility as a phenomenon that is inherently ambiguous, highly dependent upon contexts and complex social, technical and political arrangements which could be termed 'regimes' of visibility". For instance, in modernist economic thinking, there is a privileging of visuality and visualising practices (Coles, 2012; Gregory, 1994).

The visible image in modernist logic, with its roots in European Enlightenment, became the basis of rational knowledge about the world (Potter et al, 2012). By way of example, Godlewska's (1995, 6) examination of the eighteenth-century French textual representation of Egypt revealed a "construction of Egypt designed to replace Egypt". She stressed how the cartographic representations "functioned as the conceptual synthesis of the *Description de l'Egypte*" such as several plates combined "landscape sketches, plans and maps" to give "the reader a full sense of location and landscape" (Godlewska, 1995, 10, 12). Hence, Godlewska (1995, 6) contends concerning scientific knowledge in post-enlightenment thought, "Truth could be demonstrated using physical demonstration, text, map or image". By employing visualisation, the modernist logic of knowledge differentiates itself from emotion, subjectivity and tradition (Kennedy et al, 2006; Scott, 1998). Interestingly, beyond Western visualism, there is the use of visuality in pre-colonial non-literate societies as compliments of human communications (Blier, 2012; Lawal, 2001). To demonstrate, Carrol (1973, 165) noted, "Yorùbá carving presents [a] detailed illustration of the traditional culture – the life of the farm, the village, the palace, and the cults". However, visualising practices have become synchronous with modernist reasoning.

In contrast, oral practices involve the use of words in speech, stories, songs, proverbs, poems, plays, and so on. Verbal representations rely on vocal apparatus. Verbality or verbal

communication is the exchange of information using words constructed with sounds (Danesi, 2004, 276; Leonard, 2012). Oral practices are everyday means of communication employed in many non-literate societies before and after the creation of the post-colonial state as political technologies of self-expression and collective representation (Owomoyela, 2005). For instance, Indigenous oral poetry as a discursive apparatus in non-literate societies draws attention to the challenges and ills of society (Okunoye, 2010). In addition, oral histories were important in the delineation of 'good' and 'bad' governments.

Indeed, storytelling remains an important representational mode in non-literate and low-literacy societies (Damodaran, 2017, 40; Owomoyela, 2005). To illustrate, Olatunji (1982, 31) drew attention to Adebayo Faleti's poetry *Alágbára Ilé ati Alágbára Oko*, which presents a man in a moment of "sharp tension …between expectation and achievement". This poetry metaphorically emphasises the superior virtues of farm folks. Besides, it highlights an aspect of the notion of *Agbe Oko d'Oko*, the importance of the surrounding agricultural hinterlands in the sustainability of the urban spaces. Although there is privileging of visuality in modernist thought, there is still oral performance in modern, literate societies. Performativity, Edney (2019, 40) contends, pervades everyday modern life. Oral transmission plays the main role in the dissemination of ideas and imagination (Damodaran, 2017; LaBelle, 2014). For example, oral performances often mediate the reproduction and transfer of social practices and processes on the political-economic landscape (Fabricant, 2012).

The other forms of technologies, particularly technologies of domination and technologies of the 'self' deploy these discursive practices or technologies of sign system (Foucault, 1972, 1988). Foucault (1988, 19) notes, "This contact between the technologies of domination of others and those of the self" I call governmentality". This is the deployment of discursive practices in the governance of societal mentalities. The notion of governmentality occurs across broad geographical and social scales from individual self-help to the policies of the modern political state (Foucault, 1988; Hannah, 2000, 22). Operating at all spatial scales are production technologies such as economic organisations that shape and in turn shaped by these discursive practices. Therefore, these technologies of government involve skill acquisition and attitudinal change on the part of individuals (Foucault, 1988).

The governmental technologies of domination are discursive practices that dominate and construct the Other (Foucault, 1982, 1988). Lemke (2000, 5, original emphasis) explains,

"*Domination* is a particular type of power relationship that is both stable and hierarchical, fixed and difficult to reverse". In addition, he notes, "asymmetrical relationships of power", are "the effects of technologies of government" (*Ibid*, 5-6). For example, there was the use of visualisation and visual practices as an instrument of domination on the economic landscape in the post-colonial state (Coles, 2012). This is evident as deployed by state power, in aid of modernist rationalities to objectify the subject through scientific practices – making the subject an 'Othered' self or the 'Other' (Ashcroft et al, 2007; Loomba, 2005). This is the process of subjectification referring to when power acts on the subject to attach and ascribe a (truthful) identity to that subject (Wallenstein, 2013, 15). As power-knowledge, scientific discourse becomes a foremost normalising practice of modernisation.

An integral element of the modern political state is the representation of dominant visuality as authoritative knowledge (Besse, 2008). Authoritative knowledge refers to visual technologies produced and organised by or for the state. Coles (2012, 2) explains that modernity, "sees the potential for the improvement of the human condition in the rational ordering of society and control over nature". For instance, Mitchell (1988) in *Colonising Egypt* showed that model villages, military regimentation and urban layout plan were technologies of state power whose effectiveness as disciplinary methods are "in the localised ability to infiltrate, rearrange and colonise" (Mitchell, 1988, x). In addition, Legg (2007) observed in *Spaces of Colonialism* that disciplinary and biopower constructed the colonial landscape of New Delhi through colonial practices of a residential system, policing schemes and urban physical planning. These state technologies of power used techniques of classification, hierarchies and surveillance together with visualisations in creating a colonised space with governing effects on the population.

The governmental technologies of the 'self' explore how the 'self' constitutes itself (Foucault, 1988). This is the process of subjectivation, referring to when the 'self' fashion itself based on its design, rules or desires (Kelly, 2013, 513). The practices of the self, as Foucault (1988, 18) observes, "permit individuals to effect by their own means or with the help of others a certain number of operations on their own bodies and souls, thoughts, conduct and way of being, so as to transform themselves in order to attain a certain state of happiness, purity, wisdom, perfection or immortality". These practices of the 'self' assist the individuals to constitute their subjectivity – a tool that contests the universal model of humanity that modernist governmentalities present as inevitable (Foucault, 1988; Kelly, 2013; Holloway et al, 2018). Hence, the practices of 'self'

constitute counter-discourses that are also characterised by the ideas of care of self and self-knowledge (Kelly, 2013). The care of 'self' is interrelated with the care of others.

Ettlinger (2011) has shown that both forms of governance, that of the state and the self, are in a continuous state of negotiation. Engaging state policies and practices subaltern groups usually, employ technologies of the self be it oral or visual practices. For instance, Wainwright (2008) in *Decolonizing Development* examined how the Maya protested the inherited colonial geographies of the post-colonial state through the visualisation of their collective subjectivities in – their land, their way of life, and their worldview – as a way of opposing the hegemonic perspective which refuses to acknowledge their culture and their territorial claims. Similarly, Nold (2009) showed through his Bio-Mapping project the depiction of personal and group subjectivities in emotional maps recording personal journeys across places.

Technologies of government are a key aspect of governmentality since they operationalise governmental rationalities (Foucault, 1988). For instance, Rose-Redwood (2006, 475) observes that one of the key technologies of government that is often discussed in geographical literature is cartographic mapping together with the rationalisation of spaces are of fundamental importance in governmental strategies. Indeed, cartographic representation is a discursive formation of immense influence for projecting ideas, images and practices about social and economic activities (Crampton, 2010). In building on this concept, I argue that post-colonial governmentality in the post-neoliberal era offers opportunities to conceive cartography not only as a technology of state power but also as a technology of counter-power. A visual technology that is deployable as a form of transformative power against domineering governmental truths and neoliberal economic imaginaries on the landscape (Bryan, 2015; Sletto, 2020). How then is cartography implicated in the spatial rationalities that produced post-colonial geographies?

2.2.2. Cartography in the Social Production of the Postcolony

Cartography and the Social Construction of Knowledge

Cartography plays a foremost role in the social production of space. It had a direct impact on the territorial production of the post-colonial space. Cartography, following Biggs (1999, 374), is defined as "a set of techniques for producing spatial knowledge and also a form – the map – for representing that knowledge". Cartography was an integral part of the Enlightenment Project, which described the geographical space based on facts (Harley, 1988a). These mapping techniques

gradually became subject to cartographic rules that structure their production and use as a science. Hence, there was a general acceptance of the geographic map as a scientific object during the Enlightenment era in Europe (Harley, 1988a; Godlewska, 1995; Thrower, 2008). Enlightenment thinkers, Godlewska (1995, 6) observes, "shared the conviction that the world could be controlled and rationally ordered if it could be pictured and represented correctly". Therefore, the scientific map was a medium of rational knowledge about the landscape, in contrast to ignorance, myth, emotions, and superstition of traditions and traditionalism (Kennedy et al, 2016).

There are two paradigms to cartography and map studies. These paradigms are the empiricist or normative and the sociocultural approaches (Edney, 2019; Kitchin et al, 2009). The empiricist approach engages studies of visualisation, representation, cognitive map design, technical map production and technical history of maps (Crone, 1953; Edney, 2014; Perkins, 2003; Tyner, 2010). This technical approach in cartography, based on the notion of scientific realism, focuses on map design with an emphasis on map use. Indeed, the scientific map is one of the rational devices that distinguished the modern age from the era of traditionalism (Kennedy et al, 2016).

The scientific concept of the geographic map reflects mathematical reasoning and abstract spatio-temporal relations. Markoski (2016, 25) in the *Basic Principles of Topography,* refers to the geographic map as the image of the: "Earth's surface on a flat base, reduced in a given ratio, designed by mathematical rules, generalised and specifically graphically shaped, intended to communicate the distribution, state and mutual interconnection of diverse natural and social objects and phenomena selected to correspond to the purpose of the map". In other words, the map form constitutes a mathematical base, graphical system and communication purpose.

The mathematical base of the map includes projection, scale and control points. This Euclidean geometrical frame determines the co-ordinate relationship between an object in reality and its image on the scientific map (Tyner, 2010). The scale, consequent of the mathematical projection, has been a particular determinant of representing geographical information on the scientific map (Mackaness, 2007). For instance, Dent et al (2009, 2) observes, "Map scale, or the amount of reduction of the real world, is critical to the cartographer, because it determines selection and generalisation". Map generalisation refers to "the selection and simplified representation of detail appropriate to the scale and/or the purpose of a map" (ICA 1973, 173). Hence, map generalisation involves "emphasising the essential while suppressing the unimportant, maintaining logical and

unambiguous relations between map objects, and preserving aesthetic quality" (Wiebel and Dutton 2005, 124).

The graphic system structures the order and purpose of the map. For example, Tyner (2010, 9) observes, "Symbols substitute for images of objects". Again, Vasilev (2007, 1) notes, "All maps are composed only by graphical signs" but have to conform to cartographic rules. Therefore, he contends, "When the graphical signs are placed in concrete location on the map in accordance of cartographical rules, they become cartographical signs" (Vasilev 2007, 5). Similarly, Casti (2000, 39) argues, "the ordering of signs is the basic principle …in the organisation of territory which is at the basis of cartographic communication".

The concept of cartographic communication refers to the transmission of spatial information from the cartographer to the map user (Board, 1972). The concept emerged, Board (1972[2011, 40]) notes, "to bring some order to understanding the process of cartographic representation and map use". This is the epistemological background of the map communication model (Board, 1972; Crampton, 2010, 59). The role of the cartographer in this model was to communicate geographic information to the map reader as objectively and accurately as possible. The conception and production of the map, based on the map's purpose and the necessary data, is that of the cartographer. Thus, the map serves as a store of geographic data and a medium of communication. It is expected of the map reader to transform the symbolisation on the map into geographic information (Hanna, 2010, 263; Crampton, 2001, 694). Therefore, the cartographic map 'represents or stands for' the observable landscape.

Representation is the act of depicting "something in a specific way to create a message" (Danesi, 2004, 276). Tyner (2010, 9) observes, "Maps are, by their very nature, spatial representations. That is, they show positions in space". Two key concepts in representing space in maps are concepts of accuracy and precision. Accuracy concerns the quality of any data or information presented on the map, while precision refers to the details of the mapped data (Anthamatten, 2021, 28). There are several aspects of accuracy, but Tyner (2010, 83) opines, "accuracy is usually taken to mean locational or positional accuracy". Similarly, there are varying degrees of map precision (Casti, 2000, 55). The message of the cartographic map is the portrayal of geographical knowledge. Indeed, in *The Look of Maps,* Robinson (1952, 17) asserts, "Most scientific cartography is concerned with the dissemination of spatial knowledge". There is a distinguishing of

communication from representation, as aforementioned, as the transmission of the message in a particular way.

In this case, the represented landscape in cartographic maps transmits visible knowledge. Visualisation is defined "as the process of forming a mental image.….in which one individual stimulates another's senses of sight, hearing, touch, or taste to communicate information" (Banissi et al 2014, vii). Cartographic visualisation refers to the making of geospatial data visible by translating abstract concepts to a human scale that is viewable (Anthamatten, 2021, 12). As Kraak and Ormeling (2010, 7) posits, "Through their visualisation in maps, the geospatial relationships of objects can be made visible. These geospatial relationships will usually refer to relations to some specific location on the Earth's surface or can be those of objects to one another, and these relations can have many forms". As the map communication model was discredited as simplistic, it led to a shift to "a scientific alternative to cartographic communication" (Perkins 2003, 343). This is exemplified in 'cartography cube' concept (MacEachren and Taylor, 1994) "to develop theory in these areas, with an increasing investigation of the kinds of interface that are appropriate when visualising, analysing, presenting or exploring with graphical spatial displays" (Perkins 2003, 343).

MacEachern's (1994) model of map visualisation and communication – the cartography cube – made a distinction between communication and visualisation. He contends that cartographic visualisation comprises visual thinking and visual communication. That is, visual thinking involves the exploration and analysis of spatial data by the users, while visual communication involves the presentation of the exploratory and analytical results in map form (MacEachern, 1994, 2-3). Hence, cartographic communication, a subcomponent of visualisation, is concerned with presenting spatial thoughts. Indeed, in recent times, digital maps are key devices in scientific visualisations (Dent et al, 2009, 13; Kraak and Ormeling, 2010). Crampton (2002b, 85) defines geovisualisation "as a method and approach for the visualisation of geographic data in order to explore patterns, generate hypotheses, recognise connections or disruptions, and identify trends". Therefore, visual communication in cartography involves communicating geospatial information through maps to form mental images of spatial patterns or stimulate geographical imaginations.

Geographical imagination plays a crucial role in the conduct of human social practices. Cosgrove (2003b, 253) asserts, "Imagination is the capacity to fashion images that have not previously existed in the material world of their maker". On the other hand, the notion of

geographical imagination, as Gregory (2009) explains, highlights the thoughtfulness of the significance of nature, space, place and landscape in the organisation of human activity on the earth. However, the ability to build mental images of spatial objects and events could refer to what does not exist or has occurred in the past. This mental image, formed from thoughts or based on a prior picture such as a map, does shape our reality of space (Blacksell, 2006; Woodward and Lewis, 1998). Indeed, it shapes our actions, thoughts and expectations of human activities with spatial referents. The scientific map, until the challenge of socio-cultural critique, was essentially an objective image of geographical knowledge.

In contrast, sociocultural critics of cartography challenged the notion of scientific mapping as an objective rational science. Sociocultural cartography focuses on the critical examination of maps and mappings (Crampton, 2010; Edney, 2019; Kitchin and Dodge, 2009; Wood, 2010). It problematises 'technical and scientific cartography', arguing that mapping is a human and social practice (Edney, 2005; 2019). Crampton (2010) observed four fundamental principles of critical thought in sociocultural cartography. These basic principles contend that first, there is a need to challenge the cartographic production of geographic space embedded as taken-for-granted knowledge. Secondly, a prime way of challenging taken-for-granted knowledge is through a historical and spatial perspective of knowledge production. Thirdly, the cartographic production of space is shaped and operated within social, geographical, temporal and institutional contexts (Wright, 1942; Harley, 1989; Wood, 1992) – "so that knowledge does not exist except in relation to power" (Crampton, 2010, 17). Lastly, there is an active, emancipatory perspective that attempts to remove the impact of official geo-cartographic knowledges "by showing their historical and spatial contingency" (*Ibid*, 17). He contends that these themes of critical thought in sociocultural cartography often overlap and are not definitive. Thus, the fundamental contention of sociocultural cartography is not a rejection of the truth of representation but that the truth of scientific knowledge of maps emerges from conditions of power relations.

Critical theorists argued that scientific cartography is a social construction rather than an objective, neutral and comprehensive representation (Crampton, 2010; Edney, 2019; Harley, 2001; Kitchin and Dodge, 2009; Wood, 2010). By contrast, Harley and Woodward (1987; xix) defines the map as "graphic representations that facilitate a spatial understanding of things, processes or events in the human world". This definition emphasises the nature of maps as a social practice.

That cartographic maps are social construction is evident, for instance, in the ideas of vertical perspective, accuracy and map purpose.

The vertical perspective of the map projects an optical illusion (Kennedy et al, 2016). There is the challenge of projective geometry, which involves distortions for practical purposes (Monmonier, 2005), but has remained idealised on the scientific map (Edney, 2019). For instance, there was the extensive use of the Mercator projection, designed for mariners, in other contexts such as representing the geopolitical landscape. As a yardstick of spatial truth, they had very serious socio-cultural implications (Crampton, 2010; Pickles, 2004, 13). Again, Edney (2019) identified the notion of map scale as a core element of the scientific map, but it is an elusive concept. He contends that "the idealised quality of universal proportionality (map scale)" governs map production and use but actually, categories of map scales are relative and their character is essentially "defined within each thread of spatial discourse" (*Ibid*, 171, 173). In contrast to large and small scales, he suggested the use of fine and coarse resolution (*Ibid*, 8). Hence, the vertical perspective embraced the notions of objectivity, comprehensiveness, and neutrality in communicating the geographical space (Rankin, 2016).

This claim of objective truth in representing space was analysed as the cartographic gaze (Crampton, 2010; Pickles, 2004). A gaze is a distinctive way of seeing, knowing and articulating the world (Thompson, 2014). The cartographic gaze invests the map producer with a God's eye view of the world as absolute, correct, and fixed (Gregory, 1994; Pickles, 2004; Specht, 2019; Thatcher, 2018). This vertical perspective, an impersonal view from nowhere is the basis of the scientific claim of objectivity (Agnew, 2003). It is the foremost reasoning that considers and treats the cartographic map as a truth document – objective, fixed, neutral, scientific, based on abstract mathematics (Kitchin and Dodge 2007; Kitchin et al, 2009). Hence, there is a foundation and sustenance of taken-for-granted geographical narratives in the post-colonial state.

Cartographic representation highlights the notions of accuracy and precision, but scholars have described them as subjective decisions of the mapmaker (Crampton, 2010; Harley, 2001). The notions of accurate and precise information about the landscape reinforce the modernist cartographic gaze that represents nature, social life and space based on Cartesian logic as a self-evident truth, objective knowledge, and a scientific fact (Agnew, 2003; Crampton, 2010; Pickles, 2004). For instance, this basic, objective knowledge claim is "the idea that the map is a natural reflection of the landscape" (Crampton, 2010, 15). Crampton emphasises that the notion of

representation connotes the prior existence of something before the act of mapping. However, this view from above involves suppressing unimportant information about the landscape (Thatcher, 2018; Wiebel and Dutton, 2005). Rather than repetitive capture of existing biophysical landscape, the map reflects, "new ways of thinking about and treating space" based on preconceptions of the mapmaker and its patrons as truth (Crampton, 2010, 46). By contrast, Edney (2019, 4) notes succinctly, "it is intrinsic to the ideal of cartography that maps can only be statements of spatial fact". These visualised factual statements empower the creation of sites of difference and spaces of marginalisation.

The subjective decision of the cartographer serves the interest and purposes of the elite (Cosgrove, 2005; 2010; Harley, 2001). Brian Harley (1988a; 1990) argues that maps are not value-free documents presented by technical and scientific cartography but are devices employed to define, sustain, and strengthen social order. He contends that geographic truth depicted on the scientific map, is always partial, always excluding other knowledges. For instance, the scientific mapping of a colony involves subjective decisions made by the survey department who construct the maps. The graphic system on the scientific map visualises and communicates an "interested representation" (Wood, 1992, 184; Wood and Fels, 2008). Cochrane et al (2014, 2) observe that "in choosing what to represent, how to represent it and what not to represent, maps are expressions of power".

Consequently, the notion of cartographic power-knowledge refers to the map as an arbiter of social relations of power (Harley, 1988a; 1989). For instance, Harley (1988a) draws attention to the social context in which scientific maps operate. He argues that maps have always been in the service of the powerful and governing elites and employed to reinforce the domination of their interest (Cosgrove, 2005; Harley, 1988a). Although Harley (1988a, 301) posits, "Maps are preeminently a language of power, not of protest", I contend that maps are deployable as an alternative, or subversive mode of expression. For example, there is the use of maps to produce alternative spatial ideas of the agricultural settlement scheme (Baaru and Gachene, 2016). Nonetheless, there has been a critique of Harley's concept of social construction as focusing on the ideology inherent in the scientific map rather than the map itself. The cartographic map is not only inherently ideological in its subject matter, as Wood (1992) argues, but in its entire make-up is an ideological construction (Wood and Fels, 2008).

Cartographic thought has shifted towards the conceptualising of the map and mapping as a process. There is an epistemological shift from social constructionism to the questions of the ontology of the map. As Kitchin et al (2009, 10-11) notes that challenging the ontological stability of the map led to the transfer of map theory "from ontic knowledge to ontology". The challenge was "about exploring the 'being of maps'; how maps are conceptually framed in order to make sense of the world" (Kitchin et al, 2009, 12). Perkins (2010, 350, original emphasis) observes, "mapping is a *process* reflecting a way of thinking". The notion of the map as an ontogenetic becoming contrasts the view of the map as a static object in the notion of the map as a social construction (Kitchin and Dodge, 2007). The concept of ontogenetic becoming refers to "the process of continually being brought and rebrought into existence" (Thatcher, 2018, np). Therefore, these map scholars argue that the notion of fixed, static geographic knowledge of the normative cartographic map is misleading.

Edney (2019, 1) contends in *Cartography: Ideal and Its History*, "The ideal normalises 'the map', requiring that it be construed only in certain confined and quite unrealistic ways; in particular, the map is understood to be the product of a restricted set of specific practices". He observes that the meaning of a map hinged on the diverse context from which it emerged. All maps are unique to a spatial discourse where they have semiotic stability. Spatial discourse, Edney (2019, 41) wrote, "comprises a network of people who produce, circulate, and consume a suite of texts, including maps". He draws attention to mapping as a function of spatial discourses while the map was its product. He argues that the geographical map was never a stand-alone text but works with a constellation of other written and graphic texts. Hence, the subject of analysis, he argues, should be "the mapping practices that produce them" (*Ibid*, 44). Outside this precise spatial discourse, a map as a cultural product takes on different meanings in different circumstances. Therefore, the mapping process is discernable in the activities of production, use and circulation.

The ideal of cartography, Edney (2019, 4) explains are "interlocking and resilient web of mutually reinforcing preconceptions, each of which sustains basic convictions that seem to be common-sense propositions about the nature of maps". For instance, the geometric ordering of the agricultural maps used in southwest Nigeria in the early postcolonial period reflects the preconception of the developmental rationality of modern agriculture. The challenge of cartographic representation, Walters (2010) argues, is not to clutter the map with information but the awareness of deploying these maps beyond the intended purposes.

Therefore, geographical knowledge production through mapmaking involves two characteristics of the map as an object: intention and influence (Besse, 2008). Where this intention is a political-economic ideology, such as neoliberal capitalist agriculture, it has serious implications for the political-economic landscape. Furthermore, as Besse (2008, 3) argues that "like any other image, the map has the power to influence the decisions of society and culture, insofar as it shapes the world vision on which these decisions rest". Often these cartographic deployments, regardless of the emergence of the logic of virtual landscapes (Crampton, 2002b), I contend, aid the persuasive work of politics of political-economic domination. Therefore, the 'scientific, objective map' operates as a cartographic power in the hands of the governing classes of the post-colonial state.

There is a binary in the critical reflection on cartographic maps and mapping (Edney, 2019; Perkins, 2003). Efforts to move beyond this binary in map studies are also emerging. There have been critiques of sociocultural cartography by empiricist-oriented map scholarship. For example, ideological analyses of maps draw attention to the knowledge claims of technical maps and their social context, but they did not make any difference or contribute to mapping design or production (MacEachern, 1995). Also, there has been a reflective approach to technical cartography generally. For instance, Montello (2002, 298) contends, "map design should be considered in terms of its effectiveness for helping people understand the world". Also, Kent (2017, 194) draws attention to the problem of acritical cartography, suggesting, "cartographic research agendas should incorporate a long-term view on establishing ethical principles". In addition, there has been a wide acceptance that there is no single cartographic strategy or standard to measure all spatialities of human experiences (Anthamatten, 2021). These reflections on technical cartography are responses to critiques of sociocultural cartography.

Hence, the challenge of reconciling the two paradigms remains. Considering the continuing divide in cartographic research, Perkins (2003, 346-347) opines that the reconciliation of realist notions of scientific mapping and social theory in cartographic practice seems unlikely. However, the notion of emergent cartography offer promises in reconciling these two approaches in cartographic research. Kitchin and Dodge (2007) argue that there is the possibility of reconciling these two approaches in their ontogenetic notion of emergent cartography. An ontogenetic approach, in epistemological terms, can re-position technical mapping/scientific cartography and

sociocultural cartography within a processual framework (Kitchin and Dodge, 2007; Caquard, 2015). Hence, "rather than one asking technical questions and the other ideological, both come to focus on how maps emerge through practices; how they come to be in the world" (Kitchin and Dodge, 2007, 342). In conceptual terms, they argue that:

> technical questions (ontic knowledge) concerning such things as accuracy and standards, remain an important focus of study, but are appreciated to be contingent, relational and context-dependent; that addressing technical questions is in itself a process of seeking to solve a set of relational problems. In other words, the focus of attention shifts to the relationship between cartographer, individuals, and a potential solution, and how mapping is employed to solve diverse and context-dependent problems.

Although Edney (2019) draws attention to the flawed and unnaturalness of scientific cartography and opines that the hegemonic power of technical cartography remains, he acknowledged the continued need for map production, even normative maps. Edney insists on displacing prescriptive rules of normative cartography, but there is still the need to experiment with maps to serve emergent discourses. Post-representational cartographic theorists have argued technical maps and counter-maps are sub-sets of potential mappings (Kitchin and Dodge, 2007; Caquard, 2015). For instance, the integrative picture of a topographical map provides an additional advantage for a transformative process initiated by sketch maps – an evolving anticipatory spatial discourse (Gerlach, 2014).

Similarly, Fox et al (2005) observes that proponents of participatory mapping must strike a balance between producing maps and spatial information that are technically credible but remain socially relevant to the communities for solving their immediate problems. Beyond representing material cultures and conceptions of space and place, a basic challenge of citizen-based mapping for decision-making and action-taking is its 'limited credibility' (Fox et al 2005; Vajjhala, 2005). Thus, a binary exists between the technical cartographic mapping and participatory citizen-based mapping. This is very important in the context of bottom-up development in rural communities. Cinnamon (2014) suggests an alternative approach to these binary oppositions through the development of hybridities that reconceptualise spatial data production as a continuum whereby it harnesses the strength of each approach. Hence, there can be an integration of participatory mapping, scientific cartography and geographical information systems (GIS) to complement each other.

Critical map scholars have posits that there is nothing inherently or intrinsically modernist about the nature of maps. Rather, the agencies of maps occur through contextual relations (Wood, 2010). As maps are rendered modernist owing to their contingent relations with the modernist project (Gillings et al, 2019), so also they can serve critical projects. I argue that the practical value of technical mapping offers an additional advantage for socially-informed, counter-cartographies in the politics of visibility on the agricultural landscape in the post-colonial state. As Corner (1999, 250-251) contends,

> The notion that mapping should be restricted to empirical data sorting and array diminishes the profound social and orienting sway of the cartographic enterprise. And yet the power of 'objective analysis' in building consensus and representing collective responsibility is not something to be abandoned for a free-form 'subjectivity'; this would be both naive and ineffective. The power of maps resides in their facticity. The analytical measure of factual objectivity (and the credibility that it brings to collective discourse) is a characteristic of mapping that ought to be embraced, co-opted and used as the means by which critical projects can be realized.

The intersection of the two approaches and the attempt to reconcile their differences are practicable. By way of example, this thesis approached the sociocultural paradigm in cartography through historical, discursive and activist contexts (Crampton, 2001; Harley, 1989; Harris, 2015; Jessop and Sum, 2001; Krupar, 2015). Likewise, in the context of the hybrid production of knowledge, there was an integrated map production visualising citizen-based data on a technical map (Cinnamon, 2014; Fox et al, 2005). Thus, the active and practical consequence of sociocultural cartography involves resistance, social commentary, and learning geographies (Krupar, 2015) in an attempt to provide alternative views to state cartographic power.

Cartography as State Power

Cartography, as a technology of state power, has direct input in the spatial production of the (post)colonial space. Elden (2010, 809) observes, "Cartography does not just represent the territory, but is actively complicit in its production". These cartographic productions ascribe a territorial identity and manifest an interested representation of the landscape over different periods (Crampton, 2010; Pickles, 2004; Stone, 1995; Wood, 1992). This is evident in the act of territorialisation, which refers to the process of exerting control over space, the people and natural resources within it, with particular geographic boundaries (Rigg, 2007; Vandergeest and Peluso

1995). Colonial space, an encroachment of indigenous spaces, was a consequence of geographical discoveries. The cartographic representation of space reinforced these processes of discoveries and colonisation. Framed within a Cartesian reality, European colonial cartography transformed indigenous landscapes into modern territorial states. For example, Craib (2004) highlights through the notion of fugitive landscape the effort of the modern Mexican state to impose Cartesian framing upon the existing indigenous landscape.

In addition, Harvey (2004b, 110) observes that in the "imperialist era, the cartographic basis was laid for the imposition of capitalist forms of territorial rights in areas of the world (Africa, the Americas, Australasia and much of Asia) that had previously lacked them". This production of state-space through cartographic technologies of abstraction created a universal, fixed, static, ahistorical, inevitable knowledge that reduced the complex reality of everyday life to fixed models, thereby making it easier for modern political states to exercise regulation and control over their subjects and citizens (Coles, 2012; Crampton, 2010; Thatcher, 2018). Hence, Wood (2010, 33) observes, "as the map affirms the state, the state affirms the map".

The cartographic production of territorial space of the (post)colonial state also involves internal territorialisation. Internal territorialisation refers to the use of territorial divisions in the process of administering people and natural resources within the boundaries of the state (Vandergeest and Peluso 1995). State maps are integral to this process. Craib (2017, 31) wrote, "Postcolonial governments around the globe often took the cadastral, geodetic, and topographic surveys of previous colonial administrations and put them to use for new political and social programs". For example, there was the establishment of farm settlement schemes in the late colonial and early post-independence periods on alienated state lands as part of the agricultural modernisation strategy (Adegeye, 1974; Okediji, 1968; Spiro, 1986). The farm settlement scheme is a compact farming space equipped with social amenities and worked by modern technologies to achieve maximum economic production and high standards of living for farmers (Agboola, 1979; Okediji, 1969). Similarly, there was the establishment of farm blocks or farm estates in post neo-liberal periods (AfDB, 2018; Fabricant, 2012; Middelberg et al, 2020; Radcliffe, 2012).

A Farm Block is a large agricultural area where backbone infrastructure such as feeder roads, electricity, water for irrigation and domestic uses, and communication facilities are provided by Government to stimulate sustainable partnerships with private sector investors in conducting agricultural, agri-business and economic activities.

The….concept comprises a core venture (private sector), large (private sector), medium, and small-scale farms operating under an outgrower arrangement (AfDB, 2018, np).

These state agricultural discourses of spatial ordering employ a robust visual culture in their agenda (Crampton, 2010; Rose, 2016). For example, Fig.2.1 is a state-sanctioned spatial production of a farm block in the Lufwanyama District of the Zambia Copperbelt. Visual tools are not only key in the imposition of geometric layout on the biophysical space but also in projecting these modernist projects to the citizenry. These visual tools include photographs, charts, diagrams, stylised advertisements, and infographics but the cartographic map remains a fundamental visual device for spatial production (Banissi et al, 2014).

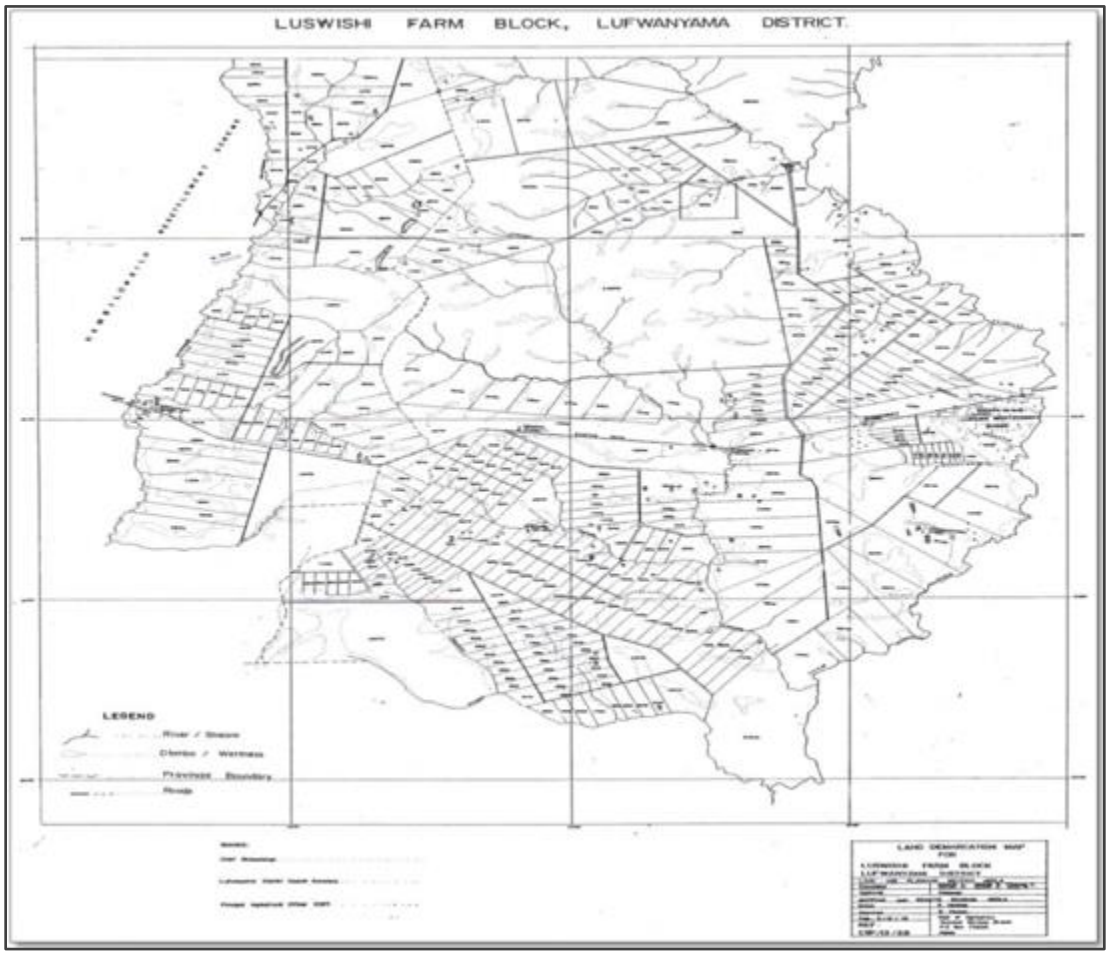


Fig.2.1 Map of Luswishi Farm Block, Lufwanyama District, Copperbelt Province, Zambia, 2018 (Source: AfDB, 2018)

However, globalisation has affected the role of the cartographic map as a political technology. As Rankin (2016, 4) observes that the "pointillist logic of coordinates" is reducing the need for detailed maps as there is a shift from area to point. Nonetheless, I contend that the map, as a state technology is still important, particularly in the post-colonial agricultural landscape. For example, there is still the use of maps in the active construction of popular consent to state-sanctioned neoliberal agricultural imaginary in southwest Nigeria.

The continuous production of territorial space involves the 'interested representation' in different contexts of the (post)colonial landscape (Wood, 1992). An interested representation highlights a visual perception influenced by cultural values. Barry (2005, 48, original emphasis) define "*Perception*, the process by which we derive meaning through experience, is a dynamic, interactive system that utilises built-in genetic programming to synthesize sensory input, memory, and individual needs". Wood (1992, 184) who observes that the map is an 'interested representation', emphasise, "the point is the acknowledgement of the interest". For instance, Axelsen and Jones (1987) contend that all maps are mental maps because they are culturally determined and reflect ethnocentric worldviews. Using several examples, which included the colonial topographical map of Bechuanaland (Botswana) in the 1950s, they demonstrated that the expected objective depiction of reality was an ethnocentric perception of the landscape. Similarly, Stone's (1995) examination of the *1933 Maps of Bechuanaland Protectorate* characterises early colonial map-making, which drew on cartographic and non-cartographic sources for its production. Hence, regardless of its official status of representing the African landscape, Stone (1995, 71) notes, "discretion is called for in consulting the map".

These state production and reproduction of territorial spaces highlight the periodisation in the history of state cartography. Periodisation refers to the splitting and classifying of time or the past into distinct, quantified and named divisions for investigation (Reinhard, 2006). Models of time influence the map history of Africa. Stone (1988) observes that imperialist cartography emerged within European imperialist mercantile ethic while the evolution of colonial cartography embodied the civilising mission. He emphasised the distinction between these two periods of the cartographic history of Africa. Indeed, Stone (1995) argues that the expansion of the cartographic record of Africa occurred during the colonial period. He distinguished between maps of wayfinding in unknown lands (Ogundiwin, 2021), which characterise the imperial period, and maps of the territorial space, which are tools of government in the colonial period. By contrast, Liebenberg

(2011) identified four episodic histories in the mapping of British Africa between 1600 and 1960. These include participation in the African slave trade, exploration of Africa's river system (1780-1870), political partition (1870-1918) and colonial rule after the First World War (1919-1960). I contend that other models of time can provide a narrative of European and state cartographies in sub-Saharan Africa. For example, there can be a periodisation of map history between the African exploration of the 1860s and decolonisation in the 1960s.

State maps are often involved in Othering practices. Modernist cartographic gaze is a foremost visual platform for defining the territorial implications of the self and the other. For example, "These maps", as Specht and Feigenbaum (2018, 2) contends, "were instrumental in the forming of the Other, and with that the subjugation of the Other". This cartographic definition of the modernist self simultaneously frames and ascribes the identity of the Other – the objectifying of the subject. The depicted landscapes exhibited this power relationship between the viewer and the viewed, which plays a fundamental role in the formation of subjectivities. For instance, Cosgrove (2003b, 254) contends,

> In every case, location serves to disengage the viewer physically from the witnessed geographical space. And, as 'vantage-point' denotes, landscape establishes a relationship of dominance and subordination between differently located viewer and object of vision…. The vantage-point privileges the viewer of landscape in selecting, framing, composing what is seen; in other words, the viewer exercises an imaginative power in turning material space into landscape.

These Othering practices of state maps are manifest in political silence, abstract reasoning and everyday tool of state administration. Cartographic silence, as used here, refers to the absence of a geographic feature on a map (Harley, 1988b), which highlights an active presence of the invisible but proposes a view the map producer intends to communicate. As Harley (1988b, 58) wrote: "political silences in maps are thus central both to… interpretation of the nature of state cartography and to the ways in which maps were used to maintain and legitimise state power". Consequently, the cartographic narrative about making sense of the world entwines cartographic silence. For instance, Bellone et al (2020, 31-32) argue that colonial maps of Sub-Sahara Africa refuse to see contiguities in cultural traits and physical environments, which has "repercussions for understanding ecosystems and how African life-ways have co-evolved with them". This cartographic definition of the self and the other had socio-cultural and political-economic

implications. For instance, geographical othering through cartographic representation led to the hiddenness of the 'Other' (Crampton, 2010). These implications are evident between the coloniser and colonised subjects in the colonial period as well as between the governing classes and subaltern groups in the post-colonial world.

The abstract reasoning from maps continuously informs decision-making about the Other. Cartographic reasoning is the act of thinking based on what is visible on the map (Gregory, 1994). The knowledge of the Other becomes synchronous with its visibility. For example, there are subjective decisions of selecting, framing and composing the geo-cartographic knowledge of the Other (Cosgrove, 2003b). Therefore, cartographic anxiety of visualising the Other emerges, as the self seeks to reduce every spatial feature of the Other to a measurable and calculable character. Any spatial feature of the Other that does not fit into this Cartesian reality continues to be excluded (Gregory, 1994; Harley, 2001; Painter, 2008). These cartographic omissions become the backdrop for the framing of spatial identities (Jacobs, 1996). For example, Krishna (1994) demonstrates cartographic anxiety in postcolonial India where there is an acute concern with areas and people inside and outside the borders of the state. This framing has consequences for the invisible, marginalised indigenous spaces. The cartographic objectifying of the subject contributes to initiating and repeating efforts of the state to (re)produce the subject to fit the image of state modernist rationalities (Coles, 2012).

State cartography, characterised as accurate and objective, facilitates administrative rule in the modern political state. State maps deployed as technologies of government, aid political techniques of biopower, modern power and disciplinary power (Ettlinger, 2011; Hannah, 2000; Lemke, 2000). Visual discourses of maps are crucial to biopolitical projects in the modern political state. For instance mapping as a form of governmental knowledge provides the mechanism and device to know the territory and its people – the basic elements of political economy (Crampton, 2010; Elden, 2007a). As Crampton (2010, 63-64) contends that maps are part of the political economy of government, the same as the notion of cartographic governmentality that highlights state maps as discursive instruments. As a result, maps, embedded within or used to deploy other technologies of state power, are biopolitical tools for assessment, control, regulation and management of resources and the population (Hannah, 2000).

Visualisations are key tools in political technologies of modern power that combine totalizing and individualizing in everyday practice (Ettlinger, 2011). Pickles (2004, 131) argues, "mapping

and statistics made citizens visible in particular ways, rendering them subject to public administration". As part of the administrative machinery of the state, cartographic maps are everyday tools in the processes of reforming the Othered subject (Crampton, 2010). For example, McGowan (2014) argues that British colonial maps and surveys are an everyday tool of administration. He demonstrates that "state power is tied to techniques and tactics to regulate, calculate, and measure" (*Ibid*, 15).

In addition, maps are integral to disciplinary power. These cartographic maps, Foucault (1995, 194) observes, are "fabricated by this scientific technology of power that I have called 'discipline'". For example, the deployment of the urban master plan regulates the population and makes the individual a disciplined citizen (Legg, 2007). Similarly, Thompson (2014) demonstrates the disciplinary power of maps in the United States' control of the Puerto Rican territory in the early twentieth century. The different types of American military maps aided the training of "hearts, minds and bodies of the newly colonised subjects" (*Ibid*, 309). The unquestioned assumption of *map-as-spatial truth* in the post-colonial space is a continuation of the technologies of colonial power (Kitchin et al, 2009; Gillings et al, 2019). Therefore, I argue that the deployment of state cartography in aid of neoliberal agricultural economic imaginary as an 'inevitable truth' reveals a character of domination by state power. State maps and mapping are crucial to understanding the historical geography of colonial and post-colonial capitalism.

Cartography and the Economic Landscape

In the post-colonial state, there are hybrid spatial representations of the economic landscape. Scientific cartography has a considerable impact on the spatial perception of the modern economic landscape. An economic landscape highlights the interrelationship between economic activities and the biophysical landscape (Wylie, 2007). The biophysical landscape is the natural environment transformed into an economic landscape through economic activities (Cosgrove, 2003b). By contrast, there are also ordinary, everyday maps and mappings of the landscape (Riggs, 2007). An elusive concept, the landscape embraces different meanings of representations of space and place (Cosgrove, 2003b; Hubbard et al, 2002; Wylie, 2007, 2009).

State cartographic power has a considerable impact on the modern conception of the landscape. Cosgrove (1998, 121) defines the landscape as "a way of seeing, a way of composing and harmonising the external world into a scene, a visual unity…..intimately linked with a new

way of seeing the world as rationally-ordered, designed and harmonious". Visual images such as maps remain important rhetorical devices in the state valorisation and production of the modernist-oriented agricultural landscape. For instance, Benjaminsen (2021, 212) contends that visual representations play an important role in state landscape governance illustrating its effect on environmental politics with evidence from the West African Sahel, South Africa and Norway. He notes that policymakers and technical experts associated with state policies have been visually mediating changes in the landscape. By way of example, there is in Southwest Nigeria the devalorising of older state-owned agricultural settlement landscapes and the seeking of a popular (re)imagination of the landscape through the newly valorised neoliberal agricultural model. The tangible, visible impression of socio-political practices is crucial in the state production of economic landscapes (Schein, 2010; Cosgrove, 2003b).

In contrast, Wylie (2007, 43), following J.B. Jackson, defines the concept of vernacular landscape as "the material world of everyday life", often "neglected, overlooked, even treated with disdain" by modern economic planners and the governing class. Verbalised geographies habitually embody the landscapes of everyday life of subaltern classes. For instance, Morphy (1995, 184) argues that despite the lack of personal contact with these aboriginal people of a land, subalterns groups do employ cultural artefacts, the similarity of vegetation, indigenous paintings and other materials to *re-present* the landscape. Unlike the material cartography of the modern state, subalterns usually employ cognitive mapping (Harley, 2001; Kitchin, 1994). Downs and Stea (1973, 8) define cognitive mapping as "a process composed of a series of psychological transformations by which an individual acquires, codes, stores, recalls and decodes information about the relative locations and attributes of phenomena in his everyday spatial environment". Indeed, Olwig (2022, 435) observes David Lowenthal's "insistence on the importance of the 'ordinary', and the fact ….that ordinary perceptions needed to be respected". However, in most post-colonial landscapes, material cartography has a dominant impact on state-endorsed socio-economic practices but also reflects in subaltern encounters with modernity (Nagaraj and Stern, 2020; Black, 2003; Yoo, 2014).

The deployment of official maps reproduces over time the statist vision of rational landscapes. Interpreting Losch's (1954) *The Economics of Location*, Gregory (1994, 58) argues that it sought "to make visible the systematic order of a rational economic landscape". Rational landscapes are presented as "universal, impersonal and objective" (Kennedy et al, 2016, 6). Again, there is the

representation of rational landscapes as a reflection of modernity, thereby manifesting the cycle of change that sustains the continuous drive for modern development (Fuchs, 2020; Robinson, 2006; Wood, 2002). In addition, the representation of rational landscapes privileges visuality as the only way to objective truth and rationality (Agnew, 2003; Gregory, 1994). This modernist view insists on making the messy reality of everyday economic activities 'submit to the power of the rational' order (Gregory, 1994, 58). Therefore, modernist development of the economic space is preoccupied with the framing of the landscape according to the rules of rational spatial order. Gregory (1994, 61) in *Geographical Imaginations* observes,

> it will be impossible to deny that many of the assumptions and concepts of the neoclassical calculus have entered popular discourse and shaped public policy, and that through its teaching, research and publishing programmes, neo classicism naturalised and universalized a particular conception of economic process.

This naturalisation of the modernist economic model enabled the figure of *homo economicus*, the very embodiment of capitalist rationality, as the governing ethos of economic development in the (post)colonial space (Gregory, 1994; Steele, 2004; Yoo, 2014). I argue that state cartographic representations of economic landscapes are essentially spatio-economic imaginaries seeking to structure the spatial consciousness of citizenry over the claims of Othered knowledges of the economic landscape. As McGowan (2013, 5) contends, "Capitalism's form of appearance is that of the natural order of things". Nevertheless, the modernist logic of rational landscape remains one of the existing socio-economic imaginaries of the biophysical landscape.

There are varied dimensions of economic hybridity on the landscape, which draws attention to the contest of knowledge claims and its different mediating forms of spatial imaginaries (Browne, 2006; Kitchin et al, 2009; LaBelle, 2014). There is a contest of knowledge claims between modernist and subaltern economic imaginations mediated by representational practices regarding the same biophysical landscape (Van Leeuwen, 2005). To illustrate, Dodge (2008) notes the deployment of digital cartography in marketing economic ideologies such as transportation facilities. He observes,

> the growth in persuasive cartography in the twentieth century has seen a shift in emphasis from politically-motivated propaganda mapping to profit-driven promotional cartography. The shift is evident in the use of maps in consumer

adverts that seek to channel customers to the benefit of private capital rather than national interests (Dodge, 2008, 256).

In my view, this profit-oriented promotional mapping is rapidly permeating the post-colonial state agricultural economy in service of the neoliberal vision to define a new normative economic space. Therefore, the "cartographic politicisation of economic spaces" offers an "understanding of economics and economic space in terms of power and the explanation of the degree to which the location of distribution of economic activity is not value-free but reflects choices that do not arise from the benign operation of a non-political economic system" (Black, 1997, 61). By contrast, the vague representations of subaltern knowledge claims make their alternative futures less known (Nayak and Jeffery, 2011; Pollard et al, 2009; Sidaway, 2000). For instance, there is the emerging notion of the CFS in southwest Nigeria that remains vague owing to its basic representation as a verbalised imagination. However, it is still an economic imaginary with "a hybridised logic, emerging out of multiple concerns" (Hincks et al, 2017, 645).

Economic imaginaries of the landscape emerge through different mediating representational forms. To demonstrate, Hincks et al (2017), using the notion of soft space imaginaries, contends that the performative process of region-building, which include competition of spatial imaginaries, has an impact on the direction of state policies and investments. They note that visual representation of imaginations remains useful in the contest of economic logic in a postmodern economy where "the choice about where, or even whether, to depict lines on a map is important because of its role in helping to mould the political-economic narrative of the space in question" (Hincks et al 2017, 650). By contrast, Damodaran, (2017) highlights music and folk songs as radical tools of social contestation in India, which prompted alternative imaginaries. She highlights the role of verbality in rethinking the social imaginaries of subaltern groups on the landscape in the act of seeking solutions to socio-economic challenges. Besides differing economic imaginaries, there are imaginaries constituted from modernity and traditional agriculture revealing another dimension of economic hybridity (Mitchell, 2005; Renne, 1997). However, visualised imaginaries remain a strong complement to most economic logic in the modern political state (Giraud and Charles, 2013; Kennedy et al, 2016).

These contrasting geographies of landscape involve an engagement with basic information on the creation, order, organisation and appearance of cultural landscapes such as spatial product and

spatial thought (Black, 2003; Cosgrove, 2003b; Edney, 2019; Liben, 1981; Schein, 2010; Wylie, 2009). Spatial products are "external products that represents space in some way", while spatial thought, "refers to thinking that concerns or makes use of space in some way" (Liben, 1981, 11-12). The engagement with the notions of spatial product and spatial thought in landscape studies reflects concerns with temporal changes and varied geographical scales.

Temporal changes are core elements of understanding historical and cultural landscapes (Black, 2003; Bishop, 2014). For instance, Luig and von Oppen (1997, 15) note regardless of the modernist landscape perception in the arts and sciences, which suggests a timeless character, there is a "continuous historical change" in the landscape. They emphasise that the human idea of depicting or transforming shaped the landscape and during this process, humans were shaped by the landscape as well. Hence, landscape geographies reveal geographies of the past and imaginative reconstruction of landscapes at varied geographical scales (Baker, 2003).

Dahlman, (2009, 192) explains the notion of geographical scale "as a way of framing the world, an interpretive process by which humans makes sense of events and relations that extend well beyond the realm of individual experience yet impinge on their lives". He argues that scale production is a human invention. By way of example, Fontein (2008, 754) notes that studies on the landscape as a symbolic tool of power drew attention to the linkage and contest of natural resources between indigenous knowledge and collective strategy at the local scale and the technological knowledge and the authoritarian power of the modern state operating at broader and local scales. At whatever scale, spatial products and spatial thoughts reflect the need for plural histories when engaging multiple landscape representations embedded in the state and subaltern practices (Ashcroft et al, 2007; Lu, 2000).

On one hand, spatial products of the state as an image of landscape manifest the notion of an ideological veil (Schein, 2010; Wylie, 2007). Baker (1992) identifies three characteristics of ideology the quest for order; the assertion of authority reflecting power struggle; and the totalizing perspective that encourages the reorganisation of the landscape through utopian development programmes. As a veil of economic ideology, landscape representation is a mediating device that depoliticises and conceals the economic character of other agricultural knowledges (Cosgrove, 1998; Walters, 2010; Wylie, 2007). Hence, in the representational processes defining the agricultural landscape, technical expertise, as cartographic power-knowledge, creates anti-political economic imaginations of the indigenous agrarian practices and subaltern knowledges.

On the other hand, geographical cognitive maps as spatial thought and spatial product of subaltern knowledges reflect engagement with spatial storage, local gaze and dualistic framing of the landscape (Briggs, 2013; Fabricant, 2012; Kitchin, 1994; Tversky, 2000). There is another type of spatial representation that influences spatial thought, the notion of spatial storage, which "refers to any information about space contained 'in the head' (and hence necessarily 'represented' in some way, as in neurophysiological structures)" (Liben, 1981, 13). This tacit knowledge is usually converted to spatial thought by individuals who might not be aware of it through a variety of functions (Lloyd, 1989, 104). A function that might often yield spatial thought is that of spatio-economic imaginations of local development (Woods, 2011). The notion of local gaze, in this study, conceptualises the landscape as the subalterns' frame of political-economic perspective. This involves the spatial thought of subaltern groups as counter-imaginations and alternative spatial-economic imaginaries – their desired spaces of imagination (Cosgrove, 2003b, 249). Oral narratives in rural localities are important in reinterpreting normative knowledge evident in imagining futures (Beckert, 2011; LaBelle, 2014; Woods, 2011).

Rural locality is a situated knowledge of space, intersecting imagination, materiality and practice (Rigg, 2007; Woods, 2011). As sites of everyday practices, they are important in uncovering resistance and reworking landscapes. In addition, subaltern knowledges involve a dualistic frame that integrates different logics of modernist and indigenous knowledge systems. As Grosfoguel (2011, 24) observes, "Subaltern knowledges are those knowledges at the intersection of the traditional and the modern". Nonetheless, Movik et al (2021) contend that visualisations are crucial in landscape governance as they provide means of creating and rationalising space. They highlight the need to interrogate the power of maps through the engagement of landscape governance and critical social cartography.

Cartography as Counter-Power

Social cartography refers to the creation of maps addressing specific questions of importance to the individual or groups at a given time and place (Paulston and Liebman, 1994, 215; Vaughan, 2018, 1). Social maps have always been a tool used by ordinary people to map their environment – the lived world, even before the invention of writing. In recent times, countering the cartographic production of state-space increasingly adapts the visualisation of the geo-cartographic maps (Crampton, 2010; Sletto, 2020; Wood, 2010). There have always been mappings by local people

but diverse ways of representing space are emerging through different forms of maps and mappings. Social cartography, in a post-colonial context, gives visibility to those people, things and places erased or ignored in official cartographies (Bryan, 2015; Sletto, 2009; 2020). This alternative rendering of space through maps and mapping exemplifies counter-power to state cartography.

Participatory social cartographies are democratised form of active engagement in geographical knowledge production (Crampton, 2010; Lin, 1999). Wood (1992, 184; 2010) contends that anyone can appropriate the power of cartographic knowledge. Therefore, "participatory mapping is an interactive approach that draws on local people's knowledge, enabling participants to create visual and non-visual data to explore social problems, opportunities and questions" (Pathways, 2010, 1). Socio-technological practices led to the emergence of these alternative renderings of geographical knowledges (Lin, 1999). For example, there is the adoption of participatory methodologies in development practice. Participatory methodologies focus on diverse aims such as archiving, contestation, negotiation, dialogue, social commentary and learning (Cochrane et al 2014; Krupar, 2015).

Therefore, rural and local communities use simple hand-drawn maps to achieve these goals. In addition, the emergence and democratisation of geospatial technologies such as geographical information systems (GIS), geo-positioning systems (GPS) and remotely sensed imagery aided the increase in alternative mapping activities (Bryan, 2015, 250; Lin, 1999, 217; Rambaldi, 2005). These technologies contributed to expressing alternative knowledge of geographical spaces. Likewise, artistic renderings of geographic spaces were another feature of this democratisation that sought to create subversive cartographies (Crampton, 2010). This re-territorialising of the social world employs cartographic power through different forms of collaborative and counter-mapping (Ribeiro and Caquard, 2018; Perkins, 2018).

Counter maps are a form of participatory social maps deployed by subordinate classes to resist or protest the homogenisation of state-space (Bryan, 2015). Thus, following Harris and Hazen (2006, 115) counter-mapping:

> refer to efforts to contest or undermine power relations and asymmetries in relation to cartographic products or processes. ….counter-mapping….fundamentally questions the assumptions or biases of cartographic conventions, that challenges predominant power effects of mapping, or that engages in mapping in ways that upset power relations.

The counter-power of maps provides a subaltern framing of the economic landscape as it contests the dominant narrative of state cartography. These framings explore the lived experiences of subalterns through active cartographic 'technologies of the self' providing alternative gazes (Foucault, 1988, 19; Ettlinger, 2011, 540). These alternative gazes of counter mappings de-subjectify and re-subjectivize the 'Othered subject' (Sibley, 1995; Sletto, 2020). For example, Crampton (2010, 108; 2002a, 12) argues that problematizing the essential lie of scientific maps offers "horizon of possibilities" whereby cartography itself becomes a political project. He asserts the need to rethink maps and mapping as sites of struggles (Crampton, 2003, 12). That is as a political struggle "where knowledge and power structures meet", such that understood politically, cartography "allows intervention in the struggle over the deployment of power-knowledge effects" (Crampton, 2002a, 12; 2003, 61). These counter-cartographies enable re-territorialisation with frames of sociocultural meaning (Lin, 1999; Rigg, 2007, 146). For example, the externalised and visualised knowledge of everyday spaces of ordinary people reveals issues, needs, desires, and conditions of importance to them. In this thesis, the exploring of spatial cognition, counter-imagination and fictional creativity of the landscape from the perspective of subaltern groups highlights this site of struggle. Therefore, counter-mappings offer a cartographic contribution to the (re)production of emancipatory subjectivity.

Counter-mapping practice provides ordinary citizens' the settings to express their spatial subjectivities (Bryan, 2015; Probyn, 2003), such as their spatial cognition of the geographical space (Austin, 1998; Tuan, 1975, 212; Tversky, 2000, 78). Hart and Moore, (1973, 248) define spatial cognition as "the knowledge and internal or cognitive representation of the structure, entities and relations of space; in other words, the internalised reflection and reconstruction of space and thought". For instance, Gabler et al (2007, 21) note, "a particularly important type of conceptual model is the mental map, which we use to think about places, travel routes and the distribution of features in space". These cognitive maps operate within diverse social contexts (Gieseking, 2013). This mental visualisation of collective and individual knowledge of the geographical space is a particular way of countering the normative image of state cartography that silences the everyday or vernacular landscapes (Boyd-Davis, 2009, 40-41; Montello et al, 2018, 184).

Citizen maps and mapping are practical sites for local knowledge construction of multiple visions (McCall, 2021). Citizen mapping affords ordinary people the opportunity to render actual

and alternative realities of the geographical space different from the popular visualisation in state maps (Nayak and Jeffery, 2011; Sletto, 2020; Treakle and Krell, 2014). The alternative visions of the existing landscape highlight actual realities, for example in state-spaces; making counter-maps an effective tool of counter-imagination. Ott and Aoki (2004, 150) explain the notion of counter-imagination as "an interpretive practice that seeks to disrupt the hegemonic structuring of difference within the context of appeals to popular imagination". For example, in this study, there is a subaltern contest of the state-sanctioned neoliberal narratives of the agricultural settlement landscape in citizen maps. Hence, these counter maps are "concerned with unmasking deep ideological structures and the relations of power they serve" (Ott and Aoki, 2004, 152). Beyond revealing actual realities of space, counter-maps illuminate the imaginations of an individual or a group.

Citizen mapping offers an artistic medium unbounded by the ideals of cartography to clarify aspirational geographies (Edney, 2019; Marshall, 2007; Sletto, 2009). Clarification, used here, refers to making a verbal statement more mentally comprehensible through a visual, material image. Rendering verbal communications in visual art form clarify concepts or verbalised imaginaries (Danesi, 2004; Leonard, 2012). For example, Crampton (2009, 841) contends, "Art provokes, surprises, seeks truths, or proposes alternatives". This mapping provides comprehension of verbalised innovations beyond their vagueness through fictional creativity. By fictional creativity, I follow Beckert's (2011, 1) explanation as "images of some future state of the world or course of events which are cognitively accessible in the present through mental representation". For example, Mitchell et al (2011) note that drawing and other visual methods are critical devices for reaching the inner world of humans. These visual devices are a stimulus for communicating memories, thoughts and feelings, in that they "capture something that is not easily put into words" (*Ibid,* 20). Indeed, Marshall (2007, 24) contends that there is a modification of the "conventional notions of art practice as self-expression or object making to cast it primarily as an exercise in knowledge construction: a process of coming to know". Citizen mapping is a process of visual knowledge production unveiling obscured rural and urban local spatial knowledges.

There is the deployment of citizen maps and mappings as technologies of self in sub-Saharan Africa. For instance, Panek and Vlok (2013) discussed the physical creation of mental maps in their community engagement in a rural village in South Africa. They conclude that the village residents "have deep local spatial knowledge… [and] can draw a basic community map" (*Ibid,* no

pagination). Similarly, Hohenthal et al (2017, 388) discussed some participatory maps that revealed alternative spatialities of mountainous landscapes in Southern Kenya with a mental orientation that "reveals better the participants' own embodied experiences and the sense of place than the north-south direction, which is irrelevant in practice most of the time". Likewise, Weyer et al (2019) explored the participatory mapping of marginalised communities in South Africa showing that the overcoming of several barriers in ethnographic fieldwork "offer opportunity for redressing past injustices and empowering marginalised communities with a voice in decisions that affect their livelihoods". These alternative knowledges expose the singularity and contradictions of authoritative cartography. Therefore, externalising local spatial knowledge on maps unveils alternative forms of visualisation and is often employed to counter and contest the fixed, static authoritative knowledge (Crampton, 2010).

Nevertheless, these ethnographic mapping exercises reveal a diverse approach to meeting different aims of subaltern knowledge production (McCall, 2021). For example, in this thesis, my approach to Citizen-Based Mapping (CBM) refers to a visual mapping activity that expresses local spatial knowledge and spatial imaginary of individual citizens rather than providing training on map-making to the citizenry. This CBM exercise *does not* map the town or village community as a whole but *is concerned* with visualising an alternative agricultural imaginary held by people in the community. It provides the visualising platform or graphic device to clarify spoken or verbal knowledge previously communicated (Sletto, 2009, 469). The CBM is a hybrid activity, which involves sketch mappings, cognitive mapping and an integrated map production. The unveiling of verbalised imagination involves participatory sketch mapping through free-hand drawing of the agricultural space (Wartmann and Purves, 2017). It conceives individuals and groups of individuals to express their imagined landscape at a finer resolution.

Additionally, since human imaginaries evolve from several individuals and cultural sources including previous knowledge (Beckmann, 1988; Zittoun and Gillespie, 2016), the CBM engages in the mapping of the traditional farm landscape and the state-owed agricultural settlement landscape to provide a geographical, cultural and economic context to this alternative imagination. Cognitive mapping, as used in the CBM exercise, involves viewing, marking and labelling locations on a topographical base map to express the geographic space of the traditional agricultural landscape. It considers individuals and groups of individuals would produce geographical cognitive maps at a coarse resolution. Conversely, sketch mapping, as used here,

involves the free-hand drawing of existing geographical space (Emmel, 2008; Mitchell et al, 2011). It conceives individuals would express the state-owned agricultural landscape at a finer resolution.

However, attempts at recovering local spatial knowledges might end up as a re-presentation of modernist-based knowledge systems (Crampton, 2010, 179). For example, Sletto (2020) notes that participatory maps and mappings have sometimes been co-opted for the benefit of state developmental institutions and capitalist endeavours. Similarly, in recent times, some scholars argue that digitally enabled citizen mapping is a co-option into the state's neoliberal logic of making people responsible for their needs. For example, Leszczynksi (2012) argues that as there was a rollback of the state, there was a replacement by a market-oriented cartographic regime, which structured the democratised, popular mapping exercises to serve the desires of capitalism. Although counter-mappings are often described as alternative or radical cartographies, Denil (2011, 19) argues, "a politically or socially challenging map should not be mistaken for a cartographically challenging map". Therefore, it appears rewarding to understand counter-cartographies as socially informed mapping – social cartography.

2.2.3. The Cartographic Construction of Socially Produced Post-Colonial Geographies: The Intersection of the Map, Space, and the Postcolony.

Cartography has been a foremost discursive instrument in the social production of space. From the above-reviewed theorisation, insights into dimensions of a unified spatial theory highlight the social production of space (Lefebvre, 1991). Postcolonial theorising reveals the effects of power on knowledge, difference and silenced visions (Ryan, 2004). Governmentality studies emphasise the impact of governmental techniques in normalising state-sanctioned imaginaries and the possibilities for their contestation (Lemke, 2000). This power of the map, embedded in its cartographic symbology, has a considerable impact on the constitution of identities (Crampton, 2010).

Indeed, state-sanctioned spatiality as conceived space initiates and reflects the otherness of landscapes in state maps. Consequently, the impacts of the taken-for-granted cartographic reasoning are still evident in the economic landscape of the contemporary post-colonial world. In addition, spatiality in post-colonial societies is characterised by different economic discourses of the same biophysical space (Van Leeuwen, 2005). These discourses reveal economic imaginaries as a contest of ideas, making maps and mappings of the landscape a site of struggle (Crampton,

2001). Again, spatiality as lived, social space is the everyday domain of collective and individual subjects where cartographic technologies of the 'self' have been and are been deployed to re-constitute the 'Othered self' (Ettlinger, 2011). These theorisations reveal the opportunities and possibilities for political subjects to reinvent or re-subjectivize themselves and their landscape identity (Boyd-Davis, 2009; Crampton, 2010).

Therefore, what are the implications and effects of state mapping on the economic landscape in the postcolony? In what ways have the same biophysical space been reproduced in the representational contest between state and subaltern economic imaginaries? How can the employment of cartographic practices promote the reflection of collective and individual subjectivities of subaltern economic imaginaries? Although the issues of economic space implicitly emerge in the literature on spatiality, postcoloniality, and governmentality, contemporary writings on the impact of official cartographies on the economic landscape have not drawn sufficient attention to the practices and processes of spatial ordering and visualisation in the recent post-colonial agricultural economy. For instance, cartographic literature employing Foucauldian and postcolonial perspectives has less engagement with economic analysis of the agricultural space (Legg, 2007, 13). Of particular importance is the form of resistance and reworking that emerges in rural hinterlands to contest the capitalist rationalising of agricultural space in the post-neoliberal era in sub-Saharan Africa (Williams, 2021). Besides, the role of cartography as a form of power in the transformational change from below, concerning the agricultural landscape, needs more attention.

2.3 Review of Literature: The Mapped Landscape

2.3.1. Cartography: Mapping as Governmental Rationality

Cartography has a strong relationship with the colonialist project as a political technology that gave rise to the territorial space of the contemporary post-colonial state. Balogun's (1989) *Development of Mapping in Nigeria* is a cartographic history of Nigeria with a modernist, teleological perspective, offering an administrative and technical narrative of the colonial and post-colonial cartography. Although Balogun (1989, 78-90) brilliantly outlines "the motive and course of colonial mapping" which formed the basis of his historical periodisation, the presented territorial project was an objective knowledge of the biophysical space in a teleological narrative. However, I argue that this territorialising project through cartographic representations was also

actively engaged in framing an economic landscape. This governmental cartographic frame reflected as a political technology, a modernist geographical knowledge, and a spatial order normalised in such teleological narratives. Therefore, this cartographic governmentality, associated with capitalist modernity, profited the colonial and later the post-colonial governing classes.

Cartography as a political technology was evident in such ex-colonies as India. Edney (1997) in *Mapping an Empire: The Geographical Construction of British India,* examined the deployment of British cartography in India as part of the Enlightenment intellectual project of providing a reason-based knowledge. He argued that the British imperial project of scientific cartography was not an Enlightenment success; rather what emerged was a hybrid cartographic image of British India. One interesting finding was the transition from collaborative mapping with Indians to British-directed colonial cartography that Othered indigenous knowledge. Edney concludes that the rational enterprise of geographic knowledge production was more of representations of power-knowledge than "some topographic reality" (1997, 25). However, this excellent social history of cartography did not explicitly address the effect of these colonial mapping practices concerning Indian agency on the agricultural landscape.

Similarly, in his historical appraisal of colonial cartography of India, Kalpagam (1995), following Mukerji (1983), explored surveying and mapping as political technologies of state formation that British colonial rule employed. He argued convincingly that this cartographic enterprise is "intimately linked to the colonial project of conquest, rule and administration" (Kalpagam, 1995, 87). Using a textual analysis of maps and documents Kalpagam (1995; 88), for instance, provided a detailed discursive examination of the *Map of Hindoostan,* revealing the governmental potentials of this eighteenth-century mapping exercise as a "revenue-generating one". Kalpagam's insightful study informs this present study around the cartographic production of space in service of capitalist modernity. Although, he implicitly addressed the discursive approach, but did not attend to visual document analysis of this taken-for-granted carto-geographic knowledge. Nonetheless, Kalpagam's study reveals the connection of cartography, as governmental knowledge, with colonial capitalism. I intend to add to the growing literature that explores and historicizes state maps as cultural constructions, in the context of Nigeria, with a particular focus on the production of the agricultural landscape.

Geographical knowledge presented in these state cartographic maps over time has normalised the governing elites' economic rationality as the dominant spatial knowledge. Hoffman (2014) in *British Honduras* examined the cartographic invention of the colonial territory of British Honduras, later known as Belize. Using the concept of spatiality, she drew attention to the linkage between geographical space and human cultural practices arguing, "no territory exists on its own; only social, political, symbolic and emotional construction grants it substance and reality" (*Ibid*, 11). Hoffman (2014, 17) argues that geographical knowledge is 'located' knowledge since it is "located within the realm of those who devise and draw maps'. Thus, the geographical vision provided by the map needs examination and interpretation within the context of the associated power at play, in this case, information for the colonial metropolises. She argues that "omissions are as important as what is mentioned, they all concur in building spatial knowledge that augments the interest of the dominant players" (*Ibid*, 17).

Hoffman's study of power relations in colonial mapping drew attention to the interplay of cartographic representation and British economic ideology but did not engage in detail the governing effect of this taken-for-granted knowledge of colonial technology on the indigenous agrarian landscape. Besides, her work ends with the early twentieth century without making a connection between the effect of the British colonial cartographic image and the challenges of modernist development in the latter part of the century. Nonetheless, her convincing use of visual and semiotic analyses of the reproduced colonial maps, unlike Kalpagam (1995), offers a methodological path in examining colonial maps. I contend that regardless of this effect of dominant modernist knowledge, Nigerian cartographic literature has not drawn much attention to the 'silences' – the absence of indigenous agricultural geographies in colonial maps and the succeeding post-colonial state cartography.

This dominant geographical knowledge has considerable influence in the spatial ordering of economic imaginaries in the colonial period but also resonates in the post-colonial state in the inevitable narrative of neoliberal agricultural imaginary. In *Decolonizing Development,* Joel Wainwright (2008) deconstructed colonial geographies of Belize by examining the spatial ordering of native communities through colonial cartography. He argues, based on exploring colonial maps of the late nineteenth and twentieth centuries, that "the spatial order imagined by the colonial state" was different from the Maya indigenous vision based on their agricultural system (*Ibid,* 54). Wainwright demonstrated that in the subsequent two decades, a mismatch between the colonial

state's spatial order and Maya agricultural practices was evident, and it led to "the creation of several new reservations" (*Ibid*, 54).

Although Wainwright examined the connection of capitalism and development, which influenced the emergence of post-colonial indigenous mapping, the study was not primarily concerned with the role of state cartographies in the production of agricultural subjectivities in the post-colonial period. I argue that these state rationalities of the agricultural space are not only resounding but also ongoing legacies in the contemporary post-colonial world. Indeed, few studies have drawn attention to the subtle influence of cartographic reasoning in high modernist representations of the agricultural landscape in the late colonial period and its ongoing impact on the post-colonial state agricultural imaginary.

The contestation of British cartographic imaginary as presented in forms of representative knowledge in the Indian subcontinent and Central America do have similar resonance in sub-Saharan Africa. Balogun (1985; 1989) scholarship presents a history of cartography that informs this present study, but his work was not concerned with exploring the social nature of state cartography as a political technology of power. For example, Balogun (1989, 77) drew our attention to the motivations of colonial mapping as "primarily the extension of British commerce", state cartography was not engaged as a governmental knowledge in service of colonial economic ideologies with its consequential impact on agricultural development. As McGowan (2014, 43) observes, "mapping…..became important tools in measuring and regulating the economy".

Again, Balogun referred to the contents of mapping in his historical periodisation, but he was concerned with a general historical survey of maps rather than an in-depth visual documentary examination of geographical knowledge on maps. Similarly, this historical evolution of maps in the empiricist context could not account for how maps inform governmental practices in the (post)colonial agricultural space. In addition, there has been a neglect of how this post-colonial geographical imaginary continues to affect and influence the notion of agricultural subjectivities in the post-colonial state. I contend that there is the need to re-read state cartographic maps in the light of the social practices and political-economic work of cartographic discourses (Edney, 1997; Hoffmann, 2014; Kalpagam, 1995; McGowan, 2014; Wainwright, 2008). Indeed, the cartographic narrative of technological progress continues to posit a normative representation of the post-colonial economic landscape.

2.3.2. The Post-Colonial State: Capitalist Modernity, Subaltern Imaginaries and the Historical Economic Landscape

There is an engagement of state agricultural modernisation programmes in sub-Saharan Africa but this literature manifests a meagre insight into a specific agricultural organisation such as the agricultural settlement scheme. Scott (1998) in *Seeing Like a State* identified the central problem of statecraft as legibility. Using this notion of legibility or state simplification as a distinctive lens, he examined the universalizing practices of political technologies of the state, the transforming power of the map and the social re-engineering of agricultural practices and development. He described the several modernist programmes as a full-fledged disaster while noting that the developmental history of the post-colonial world manifests these wreckages of huge agricultural schemes that have failed their citizens. For instance, he examined the Ujamaa Villagisation Scheme of the 1970s in Tanzania, which he adjudged a failure and social disaster. The scheme, he contends, reminiscences the failed colonial East Africa Groundnut scheme, a post-1945 large-scale resettlement scheme. Scott argues that colonial planners "were … deploying a set of aesthetic and visual standards", some of which had their origin in Western Europe, "which had come to symbolise an ordered and productive agriculture" (*Ibid,* 227). Therefore, he argued that formal schemes of social order are untenable without some elements of the practical knowledge of society.

Besides, Scott (1998, 233-234) briefly examined the Ruvuma Development Association (RDA) in Tanzania in the early 1960s, revealing local initiatives in communal enterprise, which predated the governmental developmental scheme. However, this self-defined development was not the focus of his study. Although the modern states and modernist programmes Scott (1998) examined have largely vanished or largely curbed in their authoritarian ambitions, there are still vestiges of autocratic rulers, centrist states and statist visions of modernist agricultural development in sub-Saharan Africa whose unfolding activities continue to be woe to their citizens. Scott's work excellently explores the challenges of formal schemes of social ordering by state-led modernist development, even drawing up its similarity to the neoliberal market-driven capitalist modernity. While Scott exposes the problems of hegemonic high-modernist ideology in ignoring local knowledge, I seek to link local knowledge and developmental aspirations within the context of a refashioned modernist agricultural settlement scheme. To further the point Scott made, this

present study seeks to engage this method of simplifications, in particular the map, for the re-interpretation of modern agricultural spatiality to include practical, local knowledge aspirations.

Ferguson (1999) in his *Expectations of Modernity* was concerned in his work with the myth of modernisation and the reaction to its failure. The study focused on the emerging state-led modernist development in the 1960s and early 1970s in Africa but highlighted the economic decline from the mid-1970s onwards. In the 1990s, Ferguson examined this case of reverse progression evident in the Copperbelt of Zambia. This situation of slipping backwards created a serious challenge; how could people account for life expectations, as modernisation became an object of nostalgic reverie and backwardness of the anticipated future? Indeed, a sense of decline and despair beclouds the future. Ferguson highlighted the connection between the Zambian rural settlement scheme and the back-to-the-land policy of the post-independence state.

Unlike the settlement schemes of the late colonial period (Jaeger, 1981; 2015), these settlement schemes were redesigned to get rid of the unproductive urbanite or the unemployed (Ferguson, 1999, 126) – a persisting state-sanctioned narrative elsewhere in post-colonial Africa (Hall et al, 2015). This account of the Zambia Copperbelt is not only true of that period but also expresses the present socio-economic atmosphere across Africa forty years later. An atmosphere he explored with the notion of shadows, because "African aspirations to 'development' and 'modernity' have always been shadowed by such questions surrounding the authenticity of the copy" (Ferguson, 2006, 16). Although Ferguson examined rural-urban connections and back-to-the-land events, he does not explore the internal workings of the farm settlement scheme in Zambia. Again, his work, which admirably details the sense of despair of the citizenry, does not engage the ordinary people in the re-imaging of the settlement scheme as part of their future expectations.

There are also brilliant accounts of state-sanctioned neoliberal agricultural imaginaries in Sub-Saharan Africa with an in-depth engagement on the role of agricultural cooperatives. Huggins (2013, 12) asserts, like Scott (1998), in *Seeing Like a Neoliberal State* that the post-colonial Rwandan state seeks to produce "entrepreneurial 'modern farmer' compliant with state policies". He contends that although African governments have adopted neoliberal ideologies, they continue to intervene in the market, particularly in favour of their political supporters or economic allies. Indeed, Huggins (2017, 715) observes, "Through their links with multinational corporations and partial acceptance of neoliberal economic paradigms and programmes, these governments can enjoy considerable legitimacy and influence at the global level".

Despite not being concerned with exploring the visual tools of these neoliberal discourses, Huggins (2013) drew attention to visual aspects of the Rwandan national agricultural imaginary. For example, terracing, which served as an anti-erosion strategy simultaneously "serves as a symbol of the power of the state to re-figure the rural landscape, and photographs of terraced hillsides have featured heavily in [the] government of Rwanda documents on the agricultural reform" (Huggins, 2013, 229). Huggins brilliantly examined the expanding neoliberal discourse of agricultural development, but such an in-depth engagement with the agricultural settlement scheme concerning its visual aspects is still missing in these neoliberal transformations of the African economy. I intend to add to this understanding of the African economy, a visual dimension of state power in the advance of neoliberal economic imagination.

Beyond these insightful ethnographic accounts of statist visions of utopian economic projects, there has been an engagement with the politics of economic representation and practice from a historical landscape perspective in sub-Saharan Africa (Fontein, 2008). Luig and von Oppen (1997, 7) in their *Landscape in Africa* highlight the difference and interconnections of the notions of process and vision in the study of the African landscape from "a distinctly historical perspective". This difference is rooted, on one hand, in the aesthetics of nature in European cultural history and on the other hand, in the ethnographic and historical knowledge of African perceptions of the natural environment. They observe, "This is particularly relevant in Africa with its intense encounter of distinct knowledges and interests in very contradictory processes of 'modernisation', of which landscape is an important mirror" (Luig and von Oppen, 1997, 20). Drawing upon several ethnographic and historical accounts, they argued that African perceptions of the landscape revealed a double appropriation of nature, physically and symbolically, which had social, economic and religious implications. However, this broader examination of the historical landscape requires further regional and local examination of the ideas of reciprocity between modernist development and self-defined development mirrored through landscape perceptions.

Likewise, Bishop (2014) examined the vernacular landscapes of development drawing upon African occasional textiles to reveal the African perceptions of the landscape. She argued that this visualised social commentary reveals societal directions, and serves as a form of political technology in the transmission and strengthening of ideas of progress. "Understood as historical text", she contends, "the symbolic content of occasional textiles presupposes situated cultural knowledge critical to interpreting the ideas communicated. Textile iconography serves not only to

commemorate the past but contributes to shaping the future" (Bishop, 2014, 72). In highlighting the visual commentary of vernacular models of development, she demonstrated not only the copper mining landscape of Zambia in 1963 but also a 1971 image of a luxurious agricultural landscape of Sierra Leone. Besides, there were maps in these textile iconographies, which emphasised the contrast between modernisation and backwardness of the urban and rural landscapes respectively. In either Mali or Zambia in 1991, the visualisation of tractors was symbolic of development on the rural landscape. Bishop's brilliant work on occasional textiles highlights complementary ways of diffusing ideas of progress beyond verbalisation in Africa. There is a need to engage alternative ways of economic landscape perception in Africa, building on such textile iconographies, which have roots in traditionally based visualism (Lawal, 2001).

These studies demonstrated the role of the historical geographies of the landscape as a powerful symbolic order in the struggles for material development and the knowledge claims in the re-interpretation of capitalist modernity as landscape modification intensify in sub-Saharan Africa (Bishop, 2014; Fontein, 2008; Renne, 1997). I seek to add, on one hand, to the statist vision of the agricultural landscape by exploring the role of representational practices, particularly, cartography in the meta-political economic narrative of the state and on the other hand, the emerging subaltern resistance to it. I contend that there have always been divergent ideas of envisioning and developing the agricultural landscape in the cultural encounter between indigenous/subaltern spatial knowledges and modernist visions (Fabricant, 2012). Although there are subaltern and agrarian-related studies in socio-cultural cartography (Crampton, 2010; Sletto, 2020; Wood, 2010), there is very little attention to state and non-state alternative representations of the agricultural settlement scheme in the recent socio-political struggle on the economic landscape.

2.3.3. The Agricultural Settlement Scheme: The Visual Logic of Spatial Order on the Economic Landscape

I argue that state maps used in planning, establishing and managing agricultural settlement schemes merit study on their own as cultural artefacts exemplifying the social production of space. Cartography as a political technology of colonial and post-colonial governments has always played a key role in the discourses of spatial ordering of the agricultural landscape. To create "order on the land" Balogun (1989, 319), citing Mabogunje (1982), argued was essential to economic

development and national development planning. A persisting example of spatial order in the economic landscape is the agricultural settlement scheme (Gregory, 1994; Hoorweg, 2000). The entrenched role of visualising through maps in this important scheme of economic transformation receives little attention in recent geographic, development and cartographic literature.

The maps of the agricultural settlement scheme are evident as illustrations in the literature on the farm settlement scheme in sub-Saharan Africa but not as data and tools of governing (Movik et al, 2021). For example, Jaeger (1981) in *Settlement and Patterns*, geographically examined the Kasempa district of Zambia and the role of the agricultural settlement scheme in that district. He notes that in sub-Sahara Africa "Settlement schemes were seen as a method of advancing rural development in a quick tempo by national governments" (1981, 160). In this study, he employed a human geographical analysis to examine rural development with an examination of the farmer settlement scheme at Mpungu, near Kasempa where the state encouraged small-scale commercial agriculture. He conclusively argues that "territorial mobility and settlement pattern" are key features of "rural development policy" (*Ibid*, 2). Jaeger's study, richly illustrated with maps of the settlement scheme, highlights the embeddedness of visualisation in the practices of knowledge production in the development decades (See Fig.2.2). However, this important contribution to the study of the agricultural settlement scheme did not engage maps and mapping as governmental knowledge in the production of landscape identities and agricultural subjectivities.

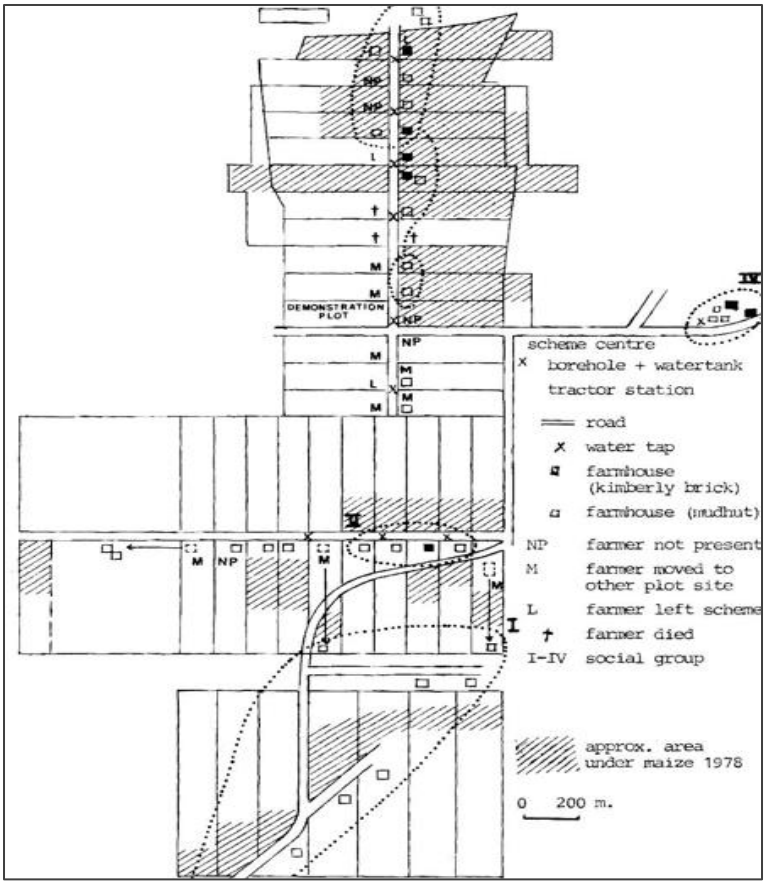


Fig.2.2 Map of the Mpungu Farmers' Settlement Scheme, Kasempa District, Zambia, 1978 (Source: Jaeger, 1981)

Development literature on neoliberal-oriented farm estates or farm blocks also employs maps as illustrations. For instance, Matenga and Hichaambwa (2017) examined three models of agricultural commericalisation in Zambia. They contend that the 'plantation' and the 'block farming model' reflect similar othering practices in agrarian social relations in the rural hinterlands. In contrast to the two enclave-type agricultural landscapes, the 'large-scale commercial farming area' has socio-economic linkages with the rural communities. This study excellently reveals the emerging neoliberal agricultural spatiality in sub-Saharan Africa depicted in their locational map. Likewise, Middelberg et al (2020, 818) examined the governmental objective of the Zambian farm block development programme identifying its "obstacles and possible opportunities". They drew attention to several "themes", including a brief discussion of the locating and designing of farm blocks, using cartographic illustrations (*Ibid,* 818). These

studies in agricultural development were not concerned with the role of map discourses but such spatial illustrations were integral to the representational practices that facilitate the knowledge of this large-scale neoliberal capitalist agriculture (Fabricant, 2012).

Nevertheless, strong counter-arguments are supporting the protection of smallholder agriculture from state-supported neoliberal agriculture (Castellant and Diepart 2014; Fabricant, 2012). This engagement revisited the farm settlement scheme but also presented maps as illustrations. For instance, Honig and Mulenga's (2015) study of the interconnection of land, smallholder agriculture and current state policies emphasised a fundamental concern in the land politics of Zambia – the marginalisation of smallholder agriculture by neoliberal capitalist developmental models. These neoliberal models have become a persuasive subject of visual discourses of the post-colonial state and international developmental organisation, which the authors did not examine. However, they deployed a series of choropleth maps to aid their argument concerning the land statistics of the country. Honig and Mulenga (2015, v) contends that "it is also critical for the development of the Zambian economy to reverse policies that marginalise this [smallholder] population relative to commercial farming, land speculation, and mining". Besides, they note that since "Chiefs and district councils are the primary institutions that protect the property rights of smallholder farmers", they recommend, "Both government and traditional authorities need regularly updated maps of chiefdoms and accurate population data" (*Ibid*, 19). Thus, maps are crucial to agricultural development discourses, but their roles over the decades in the rhetoric of the (post)colonial state have not caught much attention (Benjaminsen, 2021).

Revisiting the Kasempa district in the post-neoliberal period (Radcliffe, 2012), Jaeger (2015) in *Fifty Years of Kasempa District, Zambia*, conducted a 50-years post-colonial socio-economic evaluation of Kasempa district in Zambia. He observes, "liberalisation of markets, meant a downward spiral in agricultural activities and collapse of the once promising settlement schemes" (*Ibid*, 14). Nonetheless, Jaeger's (2015) post-independence evaluation did not only note the decline of the agricultural settlement scheme, but also the return of state-sponsored agriculture. Again, he employed maps to visually demonstrate the abandonment of the larger part of the Mpungu settlement scheme in 2002 while also drawing attention to "some of these plots remained in use on a small scale". Again, he was not concerned with engaging the visual knowledge of the farm settlement scheme as a governing tool of the state (Movik et al, 2021).

Likewise, Boone et al (2021) conducted a 54-year (1962-2016) study of the Kenyan Settlement Scheme, highlighting the role of the scheme in the logic of state internal territorialisation. Interestingly, they provided the first georeferenced information of the 533 official settlement schemes in Kenya. The two maps illustrating the paper depicted a general spatial knowledge of the settlement schemes in the western and southeastern parts of the country. In addition, they noted, first, unmapped smallholder settlement schemes whose locations were approximated on the maps and, second, the scarcity of state information on the scheme after 1982. However, Hoorweg (2000) raises a fundamental concern regarding the Kenya land settlement policy with an unclear prevailing objective, either as population settlement or as agricultural development. Nevertheless, this excellent work by Boone et al (2021) on the Kenyan smallholder settlement scheme, which focused on a broader examination of internal territorialisation needs to be complemented with cartographic and landscape investigations at the local scale and with a site-specific study of settlers and settlement schemes devoted to agriculture.

There is a little visual examination of the views of subaltern groups on the state-owned agricultural settlement scheme. For instance, Baaru and Gachene (2016) explored the local knowledge of farm-settlers in natural resource management in a Kenyan settlement scheme in the Machakos District. They employed participatory methods including sketch mapping, demonstrating the importance of local perception in sustainable development. They observe, "by gathering local perception on [the] trend of resources…farmers acknowledged…the natural resource risked being degraded beyond restoration" (*Ibid*, 21). They succinctly examined these spatial perceptions in the context of environmental management, which is necessary for awareness of climate change. However, this visual analysis of the farmers' perception of the settlement scheme did not engage counter-visions or counter-narratives to state-sanctioned neoliberal agricultural landscapes.

There have been alternative ideas of the farm settlement scheme that emerged in the cultural encounter with state-oriented capitalist modernity in the late colonial and post-independence periods (Potter et al, 2012). Alternative ideas of modernity in Sub-Saharan Africa exist in ethnographic accounts but are shadowy and persist to be visually unknown (Ferguson, 1999, 2006). For example, there are self-defined community-driven forms of a communal agricultural enterprise (Scott, 1998, 233). However, these accounts of non-state approaches to alternative agricultural modernity are often vague, perhaps because of the general lack of applying

visualisations to understand economic spaces in indigenous African knowledge systems. Rather than frame socio-economic struggles as preserving traditions in face of capitalist modernity, there have been subaltern attempts in sub-Saharan Africa to evolve hybrid alternatives to state-sanctioned economic ideologies, which, like in the Tanzanian case often face state repression (Scott, 1998, 233). Indeed, Wainwright (2008) contends that the *Maya Atlas*, as a work of postcolonial geography, could have presented the contemporary Maya culture as a genuine account of everyday life without relegating modernity to maintain the relevance of traditions. Adding to this social cartographic approach, I seek to draw attention to locally defined 'modern' development as both counter and alternative visions to the neoliberal agricultural model through visualising subaltern imaginaries. In my view, cartographic narratives are key representational practices that define, support or critique the visual framing of an agricultural landscape in Sub-Sahara Africa.

2.3.4 Spatial Order on the Economic Landscape: Intersection of Cartography, the Post-Colonial State and the Agricultural Settlement Scheme

The scientific map is a key governmental technology for representing territorial space (Elden, 2010). Economic exploitation has often been the primary reason for representing colonised spaces. This colonial economic conception of the geographical space originating in British India in the eighteenth century remains an ongoing legacy in the twenty-first-century post-colonial world (Edney, 1997; Kalpagam, 1995). Again, in the context of material development and social practices, these scientific maps are crucial to the notion of visual-spatial ordering. This notion of spatial order, internalised by post-colonial leadership and policy-makers, continues to inform geographical imaginary in the re-ordering of society (Harvey, 2005b). However, cartographic histories in Sub-Sahara Africa need to draw attention to the historical contingency of the visualisation of space, beyond empiricist and teleological narratives.

In the post-colonial state, statist visions are characterised by maps-as-spatial-truths in their attempt at orderly development (Coles, 2012). Governing elites of post-colonial states, following colonial practices, have persistently conducted social engineering of the society subject to their aesthetic and visual appeal (Scott, 1998). These top-down developments depend on legibility, driven by the myth of modernisation, but its historical experience in sub-Saharan Africa had been an economic decline. The failures of the modernisation narrative, materially evident in the spatial binaries between urban and rural areas, activate a political space of contestation from these areas

(Ferguson, 1999, 2006). Of particular importance, in the latter areas, has been the re-emergence of statist visions of spatial ordering in association with neoliberal capitalist agriculture (Castellant and Diepart 2014; Williams, 2021). This situation has led to contestations and resistances, which require re-negotiating spatial production of the agricultural landscape by the subaltern groups.

Agricultural settlement schemes, from the above-mentioned studies, are colonial in origin, expanded during modernist developmental interventions but recently adapted to the needs of large-scale neoliberal capitalist agriculture (Jaeger, 2015; Honig and Mulenga, 2005). The settlement scheme was the typical rational order on the economic landscape effectively mediated through the visualising practices of cartographic technologies. State-led neoliberal agricultural development seeks to extend the capitalist technologies (Harvey, 2005a), backed by state cartographic power, to the older settlement scheme. For instance, in southwest Nigeria, there has been a recent drive toward adapting the settlement scheme as a neoliberal model. However, these spatio-economic imaginations of the post-colonial state, owing to persistent challenges and failures of capitalist modernisation are been rethought by subalterns. For example, in southwest Nigeria, beyond a nostalgic attachment by the citizenry, there is a resurgence of subaltern ontologies of settlement schemes as a response to the continuing crisis of capitalism.

This response to state-sanctioned neoliberal imaginary, I contend, aims at re-agrarianisation of the rural hinterland based on transformative reinventing of the agricultural settlement scheme as a community-driven initiative. In contrast to state-backed political-economic narrative, economic imaginations of subaltern classes on the agricultural landscape have very few visual claims-making. Although, subaltern epistemologies of agricultural settlement scheme seem deeply innovative yet it remains vague and has attracted little attention in the literature. Balogun (1989, 321) observe in his map use survey "many Nigerians do not see the need for maps as they can always" rely on their cognitive mapping for wayfinding and navigation. Engaging the cognitive skills of subalterns should contribute to a clarification of these alternative perceptions of the agricultural landscape. Indeed, few studies in cartographic literature explore how the visual power of maps can contribute to the emancipatory potentials of a transformative change that seeks to reinvent specific agricultural organisation. Besides, Balogun (1989, 66) alludes to "the study of early development of cartography has shown that map-making was more of an art than science". Hence, I intend to add a visualising and cartographic dimension to the discourse of not only state

settlement schemes, but also subalterns' imaginaries that contest the normative spatial visions of large-scale capitalist agriculture.

2.4 Conclusion

The postcolony, as revealed from literature, is a socially produced geography. As a result, it questions the inevitability of the state-sanctioned narratives of a neoliberal agricultural landscape. This implies overlapping agro-economic discourses employed by the state and subalterns in representing the biophysical landscape. As each spatio-economic imaginaries makes knowledge claims, the physical space becomes a site of social struggle. This is a social contest, in which cartography has consistently worked to represent capitalist spaces of the post-colonial state as normative and as inevitable. Therefore, as a political technology of the state, cartographic mapping suppresses alternative economic imaginations of space. Yet this political technology, as appropriated elsewhere, serves in depicting subalterns' imaginaries. Consequently, I argue that maps of locally defined economic imaginations provide visual insights into alternative agrarian spatial thought. In this thesis, I intend to demonstrate not only the tracing of cartographic representations of space and the agricultural settlement scheme in Yorùbáland, southwest Nigeria but also its political interconnection with Othered, pre-colonial agrarian practices. Besides, these Othered knowledges are crucial to aspirational geographies of Community-owned Farm Settlement Schemes.

CHAPTER 3 RESEARCH METHODOLOGY

3.1 Introduction

In this chapter, I present the research methodology of the thesis. The methodological approach to an intertwined theoretical lens of social production of space and cartography is a qualitative methodology. Qualitative methodological research is concerned with social meaning and the impact of physical and social context on this meaning (Clifford et al, 2010; Hay and Cope, 2021; Maxwell, 2009). This chapter consists of six sections. The second section engaged the conceptual foundations of this thesis. I examined the qualitative methodological approach and the conceptual framework of my thesis design and data analysis. In the third section, I presented the thesis design structured to answer the research questions historically, comparatively and ethnographically. Again, I discussed the research methods used. Thereafter, I introduced the case study area in the Northeastern Ibadan hinterland of Oyo State, southwest Nigeria. In addition, I discussed the ethics of the research. Consequently, I explained the sampling design employed in the ethnographic fieldwork. The fourth section discussed the data collection for the study. In the fifth section, I explained the data analysis used. Drawing from the aforementioned conceptual framework, I described three data analyses that I employed. The first set of analytical techniques examined and interpreted the state maps through a critical social history of maps and a discursive examination of the power of maps. The second set of techniques examined the geographies of the agricultural landscape through a combined landscape analysis, which focused on the reconstruction and reproduction of space through representational practices; and the third set of techniques discussed the analysis of citizen maps and integrated topographic mapping. The sixth section dealt with self-reflection on research methods and the positionality of the researcher.

3.2 Conceptual Foundations

3.2.1Qualitative Research Approach

Qualitative research is an inductive process that examines social meanings in a given context (Clifford et al, 2010; Denscombe, 2010; Hay and Cope, 2021; Maxwell, 2009). Unlike the positivist approach where researchers conceptualised people as rational actors, a humanistic research approach emphasises the messy, subjective, complex, irrational and contradictory features or characteristics of human behaviour (Clifford et al, 2010, 5). Clifford et al (2010, 5) observe that human geographers drew “on methods that would allow them to explore the meanings, emotions,

intentions and values that make-up our taken-for-granted lifeworlds". They were interested or concerned not only with people sharing their personal experiences but also the representation of these experiences in literature, text, art and with fiction (*Ibid*, 5). For instance, this thesis is concerned with the impact of cartographic history on the reproduction of modernist economic landscapes and the attempt to create alternative representations of the farm settlement landscape. Indeed, the thesis seeks to clarify the imagination of Community-Owned Farm Settlements (CFS) through visualisation. Hence, it emphasises the engagement with semi-official and official representations reflecting human behaviour and explores human actions in response to these official representations.

This humanistic research approach requires data collection methods that explore meanings rooted in the politics of knowledge. Creswell (2009, 179-180) observed four types of data collection: documents, interviews, observation, and audio-visual materials. For example, Denscombe (2010, 217-220) listed documentary sources such as government publications and official statistics, newspapers and magazines, records of meetings, letters and memos, diaries, website pages and the Internet. One way of collecting documentary data is by archival research. Archival research methods generate qualitative data that range from the formally recorded type such as historical inventory to the informally recorded type such as letters and diaries (Kitchin and Tate, 2013, 225-226). However, Creswell (2009) as well as Kitchin and Tate (2013), include audio-visual materials in archival data collections.

Following Scott (1990), these authors (Denscombe, 2010; Kitchin and Tate, 2013) suggest assessing the documentary data using the factors of authenticity, credibility, representativeness and meaning (Kitchin and Tate, 2013, 227; Denscombe, 2010, 221-222). Archival methods are crucial to researching cartographic history. For instance, Prior (2013) employed an archival research method to examine British mapping of Africa between 1880 and 1915 using three case studies that focused on a Scottish map firm, the second Boer war and maps associated with a particular colonial administrator. Similarly, McGowan (2014) examined the socio-cultural history of Ghanaian cartography using secondary literature and archival materials. One particular archival source he found very useful was the annual colonial reports.

The interview method involves conversations in which the researcher is "trying to learn about a person's experiences or thoughts on a specific topic" (Kitchin and Tate, 2013, 215). The interview method generally involves the researcher asking the interviewee questions (Edwards and

Holland, 2013). For instance, this thesis sought the thoughts of participants on the CFS. Denscombe (2010, 173-174) emphasise the need for insight into "people's opinions, feelings, emotions and experiences", which involve complexities and multifaceted issues that the method is the most suited to collect. Similarly, the focus group method seeks "to explore attitudes and perceptions, feelings and ideas about a specific topic" (Denscombe, 2010, 177). For example, focus groups of farm settlers can compare the everyday reality of the farm settlement to the visual promotions of the state-sanctioned farm settlement landscape. In contrast to questionnaire surveys, Kitchin and Tate (2013, 213) observe that scholars contend, "It is meaningless or pointless to try and measure and analyse experiences, opinions and attitudes". In qualitative research, interview and focus groups are crucial data collection methods. For example, Wafer (2011) conducted a series of in-depth interviews and focus groups with traders in his study of municipal intervention in the inner city of Johannesburg in South Africa.

Observation research, Denscombe (2010, 196) explains, "draws on the direct evidence of the eye to witness events at first hand. It is based on the premise that, for certain purposes, it is best to observe what actually happen". There are two types of observation first, straight or systematic observation such as detached observing in a classroom setting and second, participant observation, when events and behaviour of people are studied by the researcher, who takes part in that activity (Denscombe, 2010; Kitchin and Tate, 2013). Kitchin and Tate (2013, 220) explain, "observation focuses upon people's behaviour in an attempt to learn about the meanings behind and attached to actions". This qualitative data collection method is essential in ethnographic fieldwork. For instance, Akinyosoye's (2020, 55) study of sustainable Bitumen mining in southwest Nigeria included direct participant observations in his data collection methods which involved "note documentation and recording graphical images". Besides, Kitchin and Tate (2013, 224) describe ethnography as "an empathetic approach that combines aspects of informal conversational interviewing with straight and participant observation".

3.2.2 Ethnographic Mapping Methodologies

One major outcome of some ethnographic research methods is the visual map. Brown et al (2017, 154) argues that "as a social research method, participatory mapping seeks to identify place attributes that range on a continuum from objective locations based on participant knowledge or experience of the study area to the subjective perception of place". Ethnographic mapping tools

include visual mapping techniques, three-dimensional modelling and transect walk (Cochrane and Corbett, 2018; McCall, 2009; Vajjhala, 2005; Warner, 2015). In this study, I used both visual mapping and transect mapping. There have been diverse meanings ascribed to visual mapping techniques of sketch maps and mental maps. For instance, Boschmann and Cubbon (2014, 237) made a distinction between sketch maps as "cartographic representations of individual or group spatial experiences, commonly produced by placing locational markings onto geographically referenced base maps", while mental maps "as a technique to understand human behaviours based on peoples" perceptions of their spatial environment. In contrast, other scholars and authors treat them as the same (Brennan-Horley, 2010; Soini, 2001).

Gieseking's (2013) methodological paper on mental mapping examined the practices, key components, uses of data and the value that spatial analytics contribute to qualitative research. Her focus was on Mental Sketch Mapping (MSM), an ethnographic mapping method in which "participants draft visual maps derived from their cognitive maps of space and the information, emotions, and ideas they hold, whether real and/or imagined" (Gieseking, 2013; 4). She observed that a mental map could be a base map that the participant works on or could be the one the participant draws and label while the researcher is around. Again, the mental map might or may not be the focus or guiding instrument in an interview. MSM, she posits, depends on social and material components. The material components include paper, regular pencils, coloured drawing pencils and pens

A transect walk refers to a systematic walk for collecting spatial information along a defined path (transect) across a project area or community together with the local people to explore the location and distribution of land uses, resources and landscape (Cochrane and Corbett, 2018, 2; Panek and Vlok, 2013). In this study, as aforementioned in Chapter 2, sketching involves free-hand drawing (Emmel, 2008; Mitchell et al, 2011), while cognitive mapping comprises among other activities, locational markings (Montello et al, 2018, 184; Gabler et al, 2007, 21; Tversky, 1981; 2000).

Ethnographic maps are employed in varieties of ways to support the spatial expression of subaltern groups (Cochrane and Corbett 2018, 2; Cochrane et al, 2014, 3). These spatial expressions include the ability to describe places, express individual worldviews, and unveil imagined futures of the landscape (Beckert, 2011; Sletto, 2020). For example, Panek and Vlok (2013, np) considering the rural context of the study area adopted the conventional pen and paper

to ensure that the mapping process was "easy, natural and uncomplicated". Their mapping methods also include aerial photograph interpretation, the use of the topographical map as base maps and transect walks. Likewise, Hohenthal et al (2017, 388) employed a multimethod participatory mapping which included sketching, timeline exercises and focus group discussions in the workshops they held in the study area. The mapping exercise involved a group of 4 to 10 people, with "each group [drawing] a sketch map depicting the waterscape (streams, springs, water infrastructure) of their respective area" (*Ibid*, 386). Besides, they produced two georeferenced maps based on these participatory mapping data.

Several scholars have drawn attention to the limitations of participatory social mapping. For example, Hodgson and Schroeder's (2002) examination of counter-mapping in Tanzania highlights conflicting local-broader priorities; the issue of integrating community mapping into the political economy; and the challenge of defining counter-mapping. Similarly, Hohenthal et al (2017, 393) posit that community mapping did not "offer ready-made solutions that need political decision making". Likewise, Anthias (2019, 20) who sought alternative territorial knowledge of the Guarani in South America cautions that "as a tool for challenging or transcending official legal-cartographic knowledges, participatory mapping had proved limited, and had even backfired". Indeed, Asmolov (2020, 40) argues that regardless of "claims that maps will increase transparency and accountability", participants in the mapping process are often "not necessarily in the solution of the issues mapped". These critiques highlight the limitations of the valiant assumptions of the counter maps as a form of pure resistance (Sletto, 2020).

However, there have been suggestions towards improving the use of ethnographic mapping. For instance, Sletto (2009) following the suggestion of Rodriguez (cited in Sletto, 2009, 469) observes, "critical cartographers may consider participatory mapping more seriously as a tool for internal deliberation and the clarification of local views". Similarly, Gerlach (2014) argue for a vernacular mapping that avoids the contestable notion of counter-mappings focusing on the co-production of everyday spaces and framing cartographic exercises as an unveiling of anticipatory spatiality. Hence, I adopt a multimethod ethnographic mapping in this study to clarify local spatial knowledge and agrarian imaginations.

3.2.3 Conceptual Framework

Following the theoretical review in Chapter 2, this study explores the intersection of the cartographic map, the agricultural landscape in the post-colonial state, and the citizens' re-imagination of the agricultural settlement scheme. I believe Lefebvre's (1991) *Production of Space* offers a conceptual model to examine the intersection of these themes (see Table 3.1). First, I situate the cartographic map of the post-colonial state within the conceived, mental space. Second, I positioned the agricultural landscape, focusing on the state-owned agricultural settlement scheme and the subaltern perspectives of outlying farm villages, within the perceived, physical space. Thirdly, I placed the cognitive maps and mappings of subaltern knowledges of state-owned and community-owned farm settlement schemes within the lived and imagined, social space.

Table 3.1 The Conceptual Framework

Cartography	State	Economic Landscape	Subaltern
Spatiality	Mental Space	Physical Space	Social Space
Postcoloniality	Geographical Otherness	Cultural /Spatial Hybridity	Spatial Subjectivity
Governmentality	Technology of State Power/ Domination	Representational Practices	Technology of the Self

Source: Author, 2021.

Again, this conceptual framework engaged the reviewed theoretical concepts of postcoloniality and governmentality (Ettlinger, 2011; Loomba, 2005; McEwan, 2009; Hannah, 2000; Foucault, 1988). For example, there was an intersection of the notion of postcoloniality with the themes of the scientific map, the landscape and the cognitive map. Hence, there was an examination of the state map through the concept of geographical othering (Spivak, 1985), the agricultural landscape through the concept of cultural hybridity (Radcliffe, 1997), and the cognitive map through the notion of subjectivity (Massey, 2005). Othering practices focus on silence in representation and the modern state production of the modern subject through visual representation (Harley, 1988b). Also, the concern with hybridity engages different contesting representations of the landscape. The emphasis of subjectivity is imagination that engages silence and subject production through alternative representation (Probyn, 2003).

In addition, this conceptual model overlaps with the concept of governmentality. Hence, I explored the state map as a technology of domination/power (Foucault, 1988), the agricultural landscape as a representational practice (Hubbard et al, 2002) and cognitive maps and mapping as a technology of the self (Kelly, 2013; Kitchin, 1994). Examining the spatio-temporality of state technologies of power requires historical data. Similarly, the comparison of landscape representations requires historical and ethnographic data. Likewise, the investigation of people's opinions, experiences and feelings in the re-negotiation of the agricultural settlement scheme requires ethnographic data. In this thesis, the analytical framework emerged from the intersected themes and concepts of spatiality, postcoloniality and governmentality as shown in Table.3.1.

3.3 Thesis Design

3.3.1 Research Strategy

This study aims, as aforementioned in the introductory chapter, to explore the potential of citizen-based mapping in strengthening and expansion of Community-Based Farm Settlement Schemes (CFS) in Northeastern Ibadan rural hinterland as an alternative to colonial and post-independence visual representational practices of state-owned agricultural settlement landscapes. The research objectives include; first, understanding how state cartography and geographical knowledge production impacted economic modernisation through the development of state-owned agricultural settlement landscapes in colonial and postcolonial rationalities. Secondly, the social contest of agricultural landscape representations and the legacies of state agricultural settlement schemes and indigenous spatial knowledge in the formation of CFS aspirations. Finally, there is the exploring of possibilities of citizen mapping in the renegotiation of political subjectivity.

To achieve this aim and objectives, the thesis design framed the research historically, comparatively and ethnographically (Denscombe, 2010; Walliman, 2011). The three research strategies emerged from the overlapped themes in the conceptual framework in Table 3.1. The historical aspect seeks to uncover the socio-cultural history and politics of state maps; it relied on historical data. Historical design strategy evaluates and syntheses "evidence in order to establish facts and draw conclusions about past events" (Walliman, 2011, 9). To do this, I conducted a sociocultural history of state maps and examined the map discourses embedded in the development of the state-owned agricultural settlement landscape. Comparatively, the research design examined the politics of landscape representational practices of the agricultural economy. Comparative

design strategy "is used to compare past and present or different parallel situations" (*Ibid*, 10). For instance, there was a comparison of the modern farm settlement landscape and the traditional farm-village landscape in this study.

This comparative approach involved the examination of landscape representations in state and subaltern discursive practices (Benjaminsen, 2021). To do this, I examined the role of visualisations and verbalisations in landscape representations. It is concerned with representational legacies and their interaction within local geographies (Jessop and Sum, 2001). A crucial part of this local knowledge is the emerging aspirational geographies of the Community-Owned Farm Settlement Scheme (CFS). The historical and comparative strategies set the context for the ethnographic investigation (LeCompte and Schensul, 1999). Ethnographically, the research design sought to clarify subaltern ontologies and epistemologies of the CFS through the visual expression of their subjectivities in a particular geographical context, the case study area – northeastern Ibadan rural hinterland. The ethnographic design strategy focuses on "how the subjects of the research interpret their own behaviour" (Walliman, 2011, 12).

3.3.2 Research Methods

The research methods I used to explore these design strategies involved data types, data collection methods and data selection approaches (Maxwell, 2013, 4). In the historical strategy, the data type required was primarily visual material, but documentary evidence related to these visualisations was also important. I collected the historical data through archival research sourced from public institutions and private collections (See Appendix 10). The historical data collected was restricted to southwest Nigeria. This geographical restriction was necessary to manage the amount of data collected, ensure a linkage with the evolution of mental images of agricultural modernisation and permit in-depth exploration of selected maps within a reasonable duration. The selection of data from the historical maps collected focused on the perception of economic features on the map.

In the comparative strategy, the data type used was visual and verbal sources. This data was collected using archival methods and ethnographic fieldwork. The archival and literature search involved the collection of visual materials embedded in textual productions and other related documents. The documentary data collected dealt explicitly or implicitly with the images of the old farm settlement scheme or the recent farm estate. The visual data collected was restricted to southwest Nigeria's agricultural modernisation exemplified in the farm settlement scheme, which

was a region-wide affair. However, the data on farm estate or remodelling of the old farm settlement scheme was restricted to Oyo State to examine specifically the neoliberal agricultural promotion of the Oyo State Government.

In addition, I collected documentary data that focused on the traditional farm village practice from the pre-colonial to the late colonial period. This data collection was restricted to southwest Nigeria to examine the Yorùbá farm village practice. I also used qualitative observation in the contemporary period to supplement the data collected on the traditional practice. For example, there was the current observation of existing farm villages. Their spatial pattern was compared with archival records and previously collected field observation as a surveyor's assistant. The data collected on the emerging ideas of CFS in recent times was verbal sources secured through interviewing. The verbal data was restricted to Oyo State. The reason for this restriction was to allow a finer comparison of the alternative imaginaries of the farm settlement in Oyo State. This geographical specificity emphasised the background for the ethnographic strategy.

The ethnographic strategy comprises a mixture of data types resulting in visual materials and verbal records. The data collection methods include interviewing, focus group discussion (FGD) and participant observation. During the interview and FGD, I asked questions concerning the agrarian landscape, the current conditions of the state agricultural landscape and the alternative ideas of the farm settlement scheme (See Appendices). Visual mapping exercises were integral to the interview and FGDs to unveil the visualisations of the agrarian landscape, the state-owned settlement scheme in the Northeastern Ibadan hinterland and the geographical imagination of the CFS. This ethnographic data collection method involved fieldwork in Northeastern Ibadan rural hinterland, the case study area.

To understand the spatial perceptions of farm-villages and emerging spatio-economic imaginaries of CFS among subaltern classes, this research design used the case study methodology. Bechofer and Paterson (2000) assert that the idea of a case was fundamental to social enquiry. The case study research allows for the thorough, in-depth exploration and understanding of complex issues (Denscombe, 2010; Kumar, 2011). This approach is a robust strategy, especially when a holistic, in-depth investigation is required. This method enables a close examination of data within a specific context (Denscombe, 2010; Rice, 2010). Usually, this method selects a small geographical area or a very limited number of individuals as the subject of the study. The case study approach has been criticised for having little basis for scientific generalisation (Creswell,

2009; Maxwell, 2009; Edwards and Holland, 2013). However, Rice (2010, 232) contends, "Case studies may not provide a basis for making wide-ranging inferences about a population but inferences based on case studies are not necessarily false or unreasonable". This research employed a case study strategy because it offers a multipurpose approach to the interrelated issues of citizen mapping, political subjectivity and agricultural landscape within a contemporary geographical context.

3.3.3 Case Study Area

The case study area, Northeastern Ibadan rural hinterland, comprises selected communities in Lagelu and Egbeda Local Government Areas (LGA) of Oyo State, Southwest Nigeria. Northeastern Ibadan rural hinterland is located between Latitude 7^0 20' and 7^0 35' N and Longitude 4^0 00' and 4^0 10' E (See Fig.3.1). The selected communities of Lalupon, Erunmu, and Ejioku are contiguous but located within these two geo-administrative units of the state. Lalupon and Ejioku are located in Lagelu LGA, while Erunmu is located in Egbeda LGA. These communities are situated along the Ibadan-Iwo Road. In addition, there are smaller communities geographically associated with these three larger communities, for instance, Odo-Oba, Elegbada and so on. The people of this area are predominantly Yorùbás, but other residents are from several other ethnic groups from other parts of Nigeria (Johnson, 1921; Udo, 1994).

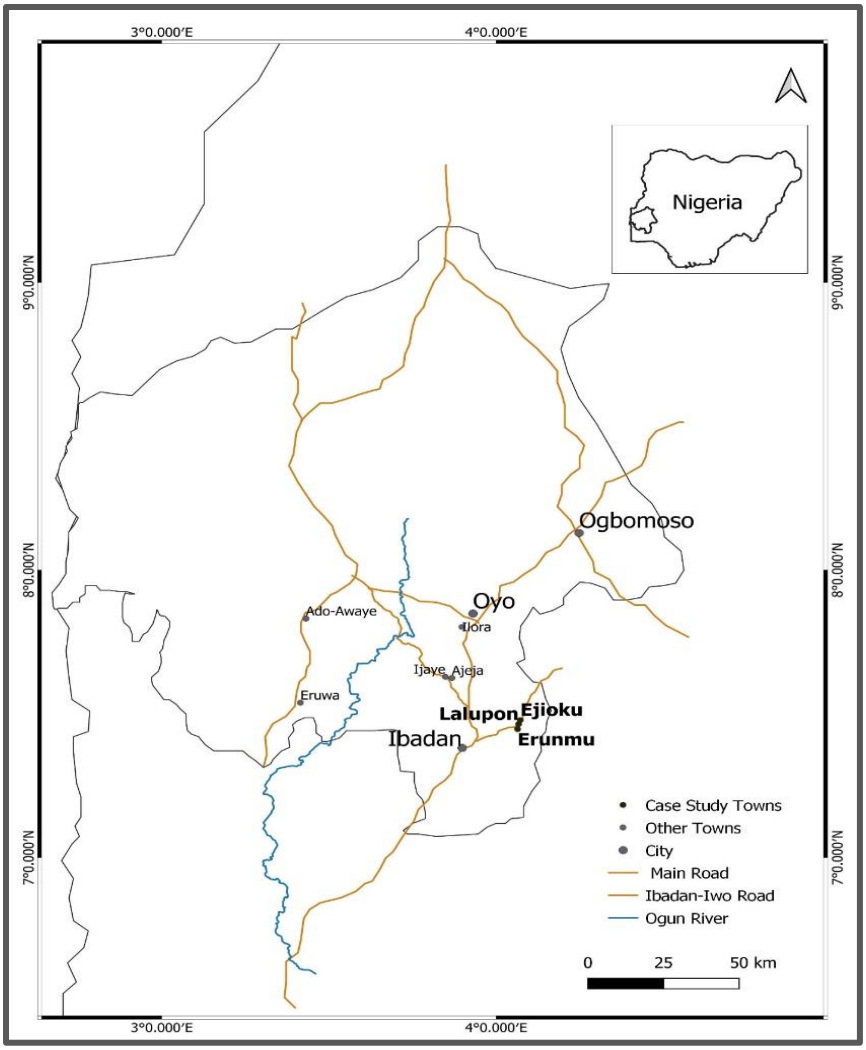


Fig.3.1 Case Study Area: Northern Ibadan Rural Hinterland, Oyo State (Source: Author, 2022)

The largest settlement in this study area is Lalupon town, with 15,854 residents (2003 National Census) but has a present population estimated at 81,130 (www.mindat.org, 2018). The town is located 32 kilometres (20 miles) northeast of Ibadan city. Although the northeastern Ibadan hinterland has several small towns, these are mainly 'market towns' in a rural world (Goddard, 1965; Oyeleye, 2001). The biophysical landscape in this area consists of tropical rainforests in the south and the southern Guinea savanna in the north. The vegetation in some places is a derived savanna. In addition, high temperatures, heavy rainfall and strong winds mark the weather and climate. Again, the economy of the people is agriculture, trading and service work.

However, the service economy has largely taken over agrarian work, particularly amongst the younger generation. Modern economic development in this area began in the mid-nineteenth

century when it was the location for the processing of oil palm for the overseas export trade (Webster and Boahen, 1980). However, there has been the production of oil palm in the area for centuries (Delany, 1861; May, 1860). The importance of the oil palm economy continued until the third quarter of the twentieth century. This oil palm farming of this agrarian landscape was one of the reasons for establishing several Community Development (CD) agricultural projects in the area in the early post-independence period. However, the demise of democratic governance and regional autonomy of southwest Nigeria in the mid-1960s, replaced by military autocratic rule, heralded the economic decline of the area. The settlement scheme policy introduced into the area in the early 1960s was essentially a regional government development strategy later carried on by the States of Southwest Nigeria as they battled economic stagnation since the mid-1980s (Lewis, 2006; Pierce, 2016).

Following this decline has been the gradual adoption of neoliberal capitalist systems of economic organisation in the twenty-first century after the return of civil rule (Bergstresser, 2017; Pierce, 2016; Roelofs, 2016). Social inequality, poverty and youth unemployment rapidly spiked thereafter. Recently, the Oyo State Government reorganised the geo-political units in the state whereby two Local Development Council Areas (LCDA) were carved out of the Lagelu LGA "in order to accelerate even development at the grass root" (Johnson, 2016). Interestingly, these development areas constitute part of the coverage of the defunct Lalupon-Erunmu Community Development Block of the early post-independence period, which initiated several CD projects. Interestingly, the LCDA remains a political and electoral device rather than a modernist development apparatus as argued by the subnational government.

Thus, the reasons for the selection of this particular case study area were first, the several abandoned and underutilised agricultural projects on its landscape, including a state-owned farm settlement. Secondly, there have been concerted efforts by these contiguous communities to revive some of these agricultural projects. For instance, there was an attempt at the resuscitation of the Odo-Oba Oil Mill, after the return of civil rule in 1999 (Interview, November 2020). Thirdly, Community-Based Organisations (CBOs) and individuals in these communities have contributed to and engaged in recent public fora in the quest for agricultural development (Akinselure, 2017b). As advocacy for community-based agriculture and community-owned farm settlement schemes increases (Akinselure, 2018; PEB, 2021; Orakpo, 2014), rural citizens interested in such proposals faces the inevitable question of conceptualising, in the light of previous experiences, the planning

and construction of this self-defined settlement scheme, which require providing spatial information including visual maps. Interestingly, communal efforts initiated by CBOs have led to the building of several facilities in this area such as community halls, police stations, etc.

3.3.4 Ethics of Research

The fieldwork component for this research thesis got approval and authorisation by the Clearance Certificate Protocol Number H19/09/41 issued by the Human Research Ethics Committee (Non-medical) of the University of the Witwatersrand, Johannesburg (See Appendix 9). The main issues of concern in the ethics of this research are informed consent, participation and research instruments (See Appendices). Informed consent from adults and youth involves using a written consent form. However, in some cases, the researcher had to resort to oral consent. This was because of the uneasiness of some participants with 'written consent'. The consent document itemised the issues of anonymity of information and participation. In addition, it sought permission to audio record interviews and conversations (See Appendices). As for participation, there were different groups directly and purposefully selected for the research. The groups included experts, key informants and community members. This broad grouping ensured access to a diverse range of information about the research problem. The experts were mainly elderly, retired and serving government officials. The key informants were those involved in advocacy for agrarian change in and around the communities. Several of these key informants were members of CBOs. By approaching CBOs, there were invitations to participate in their meetings, but I was able only to attend one CBO meeting.

Since inter-generational issues were germane to the research problem, the participant group were divided into two age ranges, the adult was above fifty years, while the youths were between eighteen and thirty-five years. Several concerned community members were often youths in their twenties and thirties. In addition, the researcher sought to ensure gender balance, however, in light of McCall and Minang's (2005, 350) observation there was an insufficient number of women participants. There was also an aim to balance the representativeness of the generational grouping (Hay, 2010, 38). However, owing to the public health emergency there was a focus on the youth because of the vulnerability of older participants to the public health crises (Covid-19 pandemic).

There was an emphasis on the protection of the identities of the participants in both the participant information sheet and consent form as well as in verbal reaffirmation. While I could

not guarantee anonymity throughout the data collection process, the conversations and discussions resulting in the research report were firmly anonymous. Besides, I firmly adhered to the confidentiality of expression, in particular, by retired and serving government officials. Again, a transect walk was conducted, only at one village community to ensure minimal health risk to the researcher and the research participants (Bullard, 2010). This pre-arranged and convenient walk only involved short distances along and across roads and footpaths in the village forest. The research instruments included focus groups, semi-structured interviews and a transect walk.

3.3.5 Participant Selection (Sampling)

In this study, I employed purposive sampling (Denscombe, 2010; Hay and Cope, 2021; Maxwell, 2009). Purposive sampling refers to "a strategy in which particular settings, persons, or events are deliberately selected for the important information they can provide that cannot be gotten as well from other choices" (Maxwell, 2009, 235). Thus, in this study, this sampling technique involved two main approaches, geographical and anthropological. That is, its application to the communities and the people interviewed. Information concerning abandoned agricultural and CD schemes in the communities was very important in the selection of the three communities. Consequently, the residents will have opinions, feelings and experiences to share regarding these abandoned schemes, the revival of the schemes and the paradigm shift to community-owned farm settlement schemes. *The interest of the participant in the CFS imagination is particularly important*. In addition, purposive sampling of research participants led to two generational groups of adults and youth. The adult, above fifty years old, are those who had heard of or experienced the operations or workings of the old schemes, while the youth between eighteen and thirty-five years could offer their opinion about the idea of the old scheme and their aspiration concerning the scheme. Similarly, the sampling of gender followed this generational pattern.

Maxwell (2009, 235) observed that there are several reasons why purposive sampling is important. First, it offers representativeness of the setting, individuals and activities selected. For instance, the communities selected in the northeastern Ibadan hinterland do represent areas near a common feature of the farm settlement scheme in southwest Nigeria – abandoned, neglected or underutilised. In addition, individuals who had farming experiences in the farm settlements can offer informed comments. Such communities with past experiential references have been vocal in the discussion of reviving the farm settlement scheme. Besides, I used the expert sampling type of

purposive sampling techniques in selecting retired and serving government officers as well as practising and ex-farm settlers. This was useful to collect information in communities and farm settlements outside the case study area. Second, purposive sampling can capture adequately the heterogeneity in the population. Hence, intergenerational and gender responses are sought in the northeastern Ibadan hinterland to offer a diverse opinion on the scheme and the emerging ideas of community-owned farm settlement schemes.

Third, "a sample can be purposively selected to allow for the examination of cases that are critical for the theories that the study began with or that have subsequently been developed" (Maxwell, 2009, 235). Guided by critical social theories, this study examines propositions made in cartographic, landscape and post-development theories while developing new concepts and theoretical insights guided by postcolonial and decolonial epistemologies. As Robinson (2003b, 273) observes, there is a need for 'concerns and perspectives' of people beyond the dominant vision in geographical research. Finally, "purposive sampling can be used to establish particular comparisons to illuminate the reasons for differences between settings or individuals, a common strategy in multicase qualitative studies" (Maxwell, 2009, 235). Thus, there was a comparison of the ethnographic conceptualisation of the CFS in the Northeastern Ibadan rural hinterland with the aspirations of a CFS at Ado-Awaye, in the Upper Ogun area of Oyo State.

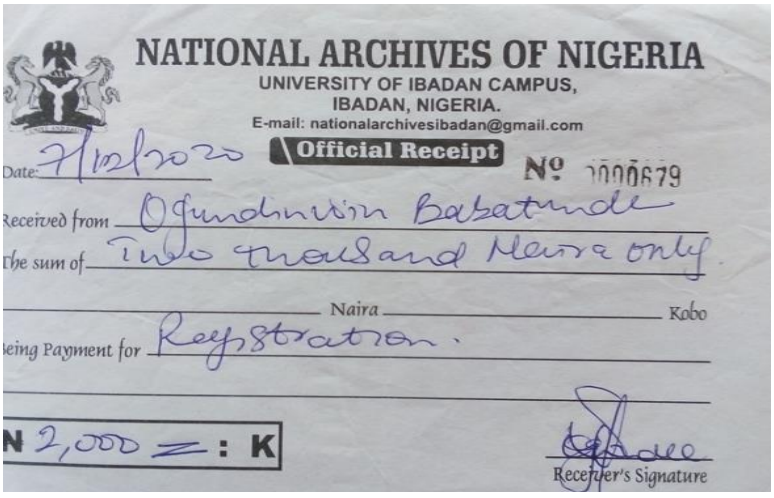
3.4 Data Collection

3.4.1 Data Collection: Historical Strategy

Data collected for the historical strategy comprise visual and documentary data for the cartographic history and map discourses in Chapter 4. I collected eighty-one maps for purposes of map history. The sources of these maps were public institutions. These public institutions included libraries and archives. Examples of University libraries that housed maps used include the Universities of Princeton, Illinois and Texas in the United States and the University of Cape Town, South Africa (See Appendix 10). Other libraries include the British Library, the UK National Archives, Kew and the American Library of Congress. The criteria for collecting the maps include the visualisation of southwest Nigeria, a period between 1800 and 1960, as well as the subject matter associated with the graphic representation of economic features. There was a reduction of these eighty-one maps to 68 by applying the criteria of nationality (British and American), producer (Semi-Official and Official) and theme of the topographic landscape depicting state economic

infrastructure. There was a further reduction to 59 maps by deselecting maps produced during the Second World War (1939-45) and maps from private firms after colonial rule began (Appendix 12).

For map discourses in Chapter 4, I used academic journals, books, state administrative correspondences, government reports, technical manuals, supranational organisation reports, atlases, propaganda pamphlets and magazines. I sourced these documentary data from public and private institutions. The public institutions comprise libraries and archives. For example, I collected documentary data from the Oyo State Library, Dugbe, Ibadan and the Library of the Oyo State Ministry of Agriculture, Natural Resources and Rural Development (MANRRD), Government Secretariat, Ibadan. Likewise, I collected documentary data from the University of the Witwatersrand Library, Johannesburg. Another source of documentary data was online libraries. Again, I used the Ibadan Branch of the National Archives of Nigeria to collect archival materials (Appendix 13) (See Fig 3.2). However, I sourced the magazines from a private collection. The criteria for selecting these data were, first, the subject of agricultural development and modernisation in Sub-Saharan Africa in the late colonial period (1945-1960). Secondly, the specific topic of the state-owned agricultural settlement scheme in the early post-colonial period of Nigeria (1960-1969). Thirdly, there was also the use of or reference to maps in these documentary data.


NATIONAL ARCHIVES OF NIGERIA
UNIVERSITY OF IBADAN CAMPUS,
IBADAN, NIGERIA.
E-mail: nationalarchivesibadan@gmail.com
Official Receipt
Date: 7/12/2020
No 0000679
Received from Ogundimu Babatunde
The sum of Two thousand Naira only.
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Receiver's Signature

Fig.3.2. Registration Receipt, National Archives of Nigeria, Ibadan (Source: Author, 2020)

3.4.2. Data Collection: Comparative Strategy

For comparative strategy, I used documentary data, which includes academic journals, government reports, atlases and books to examine landscape histories in Chapter 5. In addition, I utilised newspapers, archival documents and ethnographic data. I sourced the documentary data from public institutions such as the Oyo State Library, Oyo State Government Website and Oyo State Government publications. In addition, I collected documentary data from the National Archives, Ibadan and online libraries (Appendix 13). Besides, I used news media sources. For example, I collected newspapers, both print and online (Appendix 14). Again, I collected visual and documentary data from a private archival collection used in Section 5.3.3. However, I sourced the Nigerian National Topographical Maps (NTMs) from the Oyo State Map Depot of the Office of the Surveyor-General of Oyo State (See Fig.3.3) and a private collection.


12/16/2020 https://www.ecashier.com/Home/Oyo?PaymentReferenceWithPayerID=OYSG/WEMA/XPS/201216/30361

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Date: 16-12-2020

OYO STATE GOVERNMENT
REVENUE RECEIPT

Payer ID
Approach the BIR for your Tax Identification Number
Paid By: BABATUNDE A OGUNDIWIN
Address: 8 BABRINDE LAYOUT OLODO
Amount: NGN 8,000.00 « Eight Thousand Naira and Zero Kobo »
Being: Payment for 4040121 - Printing and Sales of Map
<< Paid at WEMA BANK PLC 142 - Ibadan-Lagos By-pass, Oke-Bola, Deposit Slip Number 0505004 by Cash >>
Agency: OFFICE OF THE SUVEYOR-GENERAL
Rev. Office: Headquarters Assessment, Secretariat

Signature

To authenticate this receipt, Please visit the office of the State Accountant General Secretariat, Ibadan.

Fig.3.3 Receipt of Map Purchase from Map Depot of Oyo State Government, Ibadan (Source: Author, 2020)

Likewise, I carried out interviews and participant observation in Ado-Awaye in November 2020 and at the State Government Secretariat, Ibadan. I interviewed the CDA members and later MANRRD staff at Ibadan on the claims of the Ado-Awaye participants (See Table 3.2). Besides, there were personal communications with retired and serving government officials on issues of

farm settlement schemes, the state-sanctioned neoliberal revamping of the scheme and cartographic mapping of the farms based on their experiences other than government information. The criteria for documentary data selection were first, the theme of agricultural modernisation, specifically the farm settlement scheme in southwest Nigeria between 1960 and 1979 as well as Oyo State between 2001 and 2021. This also applied to the selection of some NTMs, and their depiction of the modern agricultural landscape. Secondly, there was also the theme of traditional agriculture in southwest Nigeria with particular examples from Ibadan and its hinterland. Thirdly, there was the use of or reference to maps, both visual and verbal, in these documentary data. Fourthly, ethnographic data collection required the participants' knowledge of the CFS Scheme in Ado-Awaye and the State Settlement Schemes in Ibadan.

In Chapter 6, I used maps, documents and ethnographic data. I collected the maps from Oyo State Map Depot, the General Administrative Department of Lagelu Local Government at Iyana-Offa and the Town Planning Departments of Ibadan North Local Government at Agodi, Ibadan. All the maps depict the Northeastern Ibadan rural hinterland. Additionally, I collected documentary data comprising published academic literature from a private library. One of these documentary data includes a map illustration used in the Chapter. I collected the ethnographic data from interviews, FGDs and participant observation at Northeastern Ibadan hinterland. The focus of the ethnographic data was the descriptive geographies and alternative views of the State-Owned Farm Settlements and the verbalisation of the CFS.

3.4.3 Data Collection: Ethnographic Strategy

Ethnographic Fieldwork

Qualitative data for the ethnographic strategy involved records of interviews, focus group discussions (FGD) and participant observation. I collected records through fieldwork not only from the case study communities but also from other communities important to the study as I have discussed in the preceding section. The field survey in all the communities involved interviews and focus group discussions (FGD). The fieldwork occurred between November 2020 and February 2021. During the interview, new questions emerged, allowing both the interviewer and interviewee the flexibility to probe for details or discuss issues. The interviews consist of personal interviews conducted one-to-one and through telephone interviews.

The personal interviews used an unstructured format and semi-structured interview schedules dealing with maps, farm settlement schemes, community-driven farm settlement schemes and traditional farm villages (See Appendix 3-8). For example, there were semi-structured interviews on the farm villages and the CFS imagination at Lalupon, Edun, Erunmu, Ejioku and Iyana-Offa (See Table 3.2). Likewise, I used unstructured interviews at Ado-Awaye. I decided to use the unstructured interview format to uncover the personal experiences of the Ado-Awaye Community Development Association (CDA) purposely because the public knowledge of the Araromi CFS was framed by the news media (Appendix 14). Therefore, I wanted the participants to affirm or challenge the preconceptions based on this public information from their point of view. Where I secured permission, the personal interview sessions were audio-recorded. Some semi-structured interview sessions included visual mapping. Again, the researcher drew some maps of geographical descriptions based on the participants' requests and later validated them in interviews.

There were focus group discussions (FGD) but not all FGDs involved ethnographic mapping (See Table 3.2). For example, there was a FGD at Ejioku, which translated their verbal representations of the CFS imagination into visual image. Similarly, there was a FGD on farm villages and CFS at Lalupon, Edun and Erunmu, which also involved mental mapping and sketching. There was also a FGD at Lalupon Farm Settlement with older farmers but it did not yield any maps. Besides, during the FGD there were opportunities to engage participants on the visual discourses of state maps and official cartography. In addition, I conducted a transect walk around a village. During the transect walk at Elegbada village, I identified locations and took GPS readings of these locations. In addition, I took GPS readings of several towns, villages, hamlets and isolated buildings during my field observation visits.

The ethnographic fieldwork resulted in 30 interviews, 6 FGDs, 15 field observation visits and one transect walk (See Table 3.2). Several participants involved in the interview sessions also partook in the FGD and transect walk. These ethnographic activities involved 77 participants in seven communities of Northeastern Ibadan hinterland, five communities in other places in Oyo State and at the Oyo State Government Secretariat in Ibadan (See Fig.3.4). The seven communities in the case study area are Lalupon, Erunmu, Ejioku, Iyana-Offa, Odo-Oba, Edun and Elegbada (See Table 3.2).



Fig.3.4 Oyo State Government Secretariat, Oke-Agodi, Ibadan (Source: Author, 2021)

Table 3.2 Activity During the Ethnographic Fieldwork

Fieldwork	Activity	Number of Activity	Communities and Number of Participants [N]
Interviews	Questioning, mapping and collection of GPS Readings	20	Lalupon [17], Ejioku [15], Erunmu [10], Iyana-Offa [3], Odo-Oba [3], Edun [3], Elegbada [3], Ado-Awaye [4], Eruwa [2], Ajeja-Alabata [2], Ijaye [5]
FGD	Discussions and mapping	6	Lalupon (Town and Farm Settlement), Ejioku, Erunmu, Edun, Ijaye

Transect Walk	Participant observation and collection of GPS Readings	1	Elegbada
Site Visit	Field observation and collection of GPS Readings	15	Lalupon, Ejioku, Erunmu, Akufo Village, Akufo Farm Settlement [1], Aba-Kasumu, Ajiwogbo, Akinsawe, Ile-Gbon, Elegbada
Interviews at State Government Secretariat, Ibadan	Questioning	8	Deputy Directors (Crop and Farm Settlement Division, Statistics and Planning Division) [2]; Surveyors, Cartographic Technologists [2] (Office of the Surveyor-General) Farm Settlement Officers [2]
Interviews at Ibadan	Questioning	2	Retired State Government Officials [3]

Source: Author, 2021

There were 54 participants from the case study area with key informants. For instance, there were three key informants at Lalupon and similarly at Erunmu. In contrast, there was a lone key informant in Ejioku town. However, he helped activate several youths to partake in the CBM exercise. Of these 54 participants, there were 48 men and 6 women. The women include five at Lalupon and one at Erunmu. In addition, most participants were middle-aged and young adults but there were seven elderly people. These elderly participants include three at Lalupon, two at Erunmu and one each at Odo-Oba and Elegbada. Several participants were involved in craftwork, trading, motor-driving, local food processing and local government service but they all have farming experiences or also engage in farming. I engaged 12 farm-settlers at Lalupon in interviews and FGD, but only three consented to visual mapping.

The key informant at Ejioku, as a pseudo-researcher (Yeung 2003), conducted a mapping workshop of 15 participants at Ejioku, four of whom were later present at the transect walk at Elegbada. The workshop participants were from Aba-Afa, Sukuru, Ejioku, Ilegbon, Ariku and Elegbada. In contrast, there were seven persons, including myself, involved in the transect walk, which aimed at transposing the fictional CFS drawings into potential real-world farmland. The five communities outside the case study area include Ado-Awaye, Akufo farm settlement, Ijaye farm settlement, Eruwa farm settlement and Ajeja-Alabata state model farm (See Table 3.2). I collected ethnographic data on the current conditions of the scheme in the state-owned farm settlements. However, there were communities I only conducted qualitative observation rather than interviews. For example, I conducted observations at Ajiwogbo and Akinsawe villages near Odo-Oba.

Citizen-Based Mapping

In exploring Chapter 7 of this thesis, I collected ethnographic data, which comprised experiences, opinions, and feelings of participants verbalised and visually expressed on paper (Denscombe, 2010; Kitchin and Tate, 2013). The verbalised knowledge was integral to the visual mapping exercise. I collected the visual expression of the landscape on topographic base maps and sheets of paper in the interviews and FGDs. Citizen-Based Mapping (CBM) provided a suitable device to deliberate upon aspirational geographies that concerned alternative approaches to actual realities of the state-owned farm settlement scheme and spatial planning of the CFS. This CBM exercise was a hybrid activity, which included the use of a topographic base map and free-hand drawing techniques. As aforementioned in Chapter 2, *this CBM is concerned with visualising the spatial image of the CFS imaginary, highlighting the visual appraisal of the state-owned settlement scheme and the continued presence of the traditional farm villages*. It does not map the geographic space of the town or village communities or all existing socio-economic resources in these communities. The maps derived from these mapping activities are divided into two for purpose of analysis (Boschmann and Cubbon 2014, Gieseking, 2013; Soini, 2001); mental maps and mental sketch maps.

Mental Maps (MM) express the geographic space of the Northeastern Ibadan hinterland. It visualised the perceptual mapping of traditional farm villages where agri-food production currently takes place that is silenced in the recent state-sanctioned promotional maps. The Mental Sketch

Map (MSM) involves freehand drawing for the perceptual mapping of the state-owned farm settlement and the propositional mapping of the CFS.

The research instruments used during this citizen-based mapping exercise were as follows: semi-structured [individual and group] interview, mapping interview, ethnographic observation (transect mapping, participation observation), personal communication, photographing and audio recording. Some citizen-based mapping exercise took place in a separate mapping interview, but there were occasions when the mapping occurred during the interview. Also, the maps were used in later interviews, meant to validate and verify previous information obtained from participants.

The tools and materials used in this mapping exercise include paper, coloured markers, pens, pencils and topographic base maps. The papers provided to participants were plain white sheets of A3 and A4 size. Gieseking (2013) observed that the size of the paper does influence the responses of participants. The coloured markers provided were in colours of red, blue, green, black, purple and yellow. Several citizen mapmakers used pens for labelling. Likewise, some participants preferred the pen for drawing. The pencil was useful while making preparatory drafting of a farmstead plan (CFS). In some cases, the final drawing was in coloured markers.

The topographic base map was the principal material of mental mapping (See Fig.3.5). It was a photocopied extract of a topographic map in the A4 paper size. The photocopies were in coloured as well as black and white types. The map extract was a United States Army Map Service G504 Series topographic map compiled and produced in 1956. This topographic sheet NB31-3 titled Ibadan covers the central part of Western Nigeria. It has a 1:250,000 scale. The map source was the University of Texas Perry-Castaneda Library Map Collection. I zoomed in on the area of interest in NB31-3, extracted it as a screenshot on the computer, saved it as an image and printed it on A4 paper. The extracted segment of the map was the area of interest to this study – the Northeastern Ibadan hinterland. The principal reason for selecting this map was that it did not depict any rural settlements identified as farm villages in the case study area, except Elegbada, which was labelled as Elagba (See Fig.3.5). Hence, it allowed participants to reconstruct their spatial cognition of the farm village landscape and reveal their everyday productions of space on the base map. However, the base map depicted the main road, railway and river, which are features participants used to exercise their geographical judgement to locate farm villages in the case study area relative to these depicted or mapped features



Fig.3.5 Map Extract, Northeastern Ibadan Rural Hinterland, (Source: United States Army Map Service, 1956)

The stages of this citizen-based mapping exercise were introductory, perceptual and propositional. The first stage involved introductory visits and preparatory talks on rural development, the role of farm villages in the current agricultural economy, the status of state farm settlements and ideas of CFS. The second stage involved general perceptual mapping, which resulted in mental mapping with topographic base maps and sketch mapping of the state-owned farm settlement. However, some participants provided verbal mappings during this stage. Also, this stage permitted discussions to set agenda for a solution to the identified decline and problems of farm-village practice as well as the underutilisation of state-owned farm settlement schemes. I

enquired from the residents of the towns regarding the farm settlement, the moribund CD projects and the farm village, but farm settlers only answered questions concerning the farm settlement scheme. Noticeably, many farm-settlers were not indigenes of Lalupon town. The farm-settlers unveiled their spatial knowledge of the farm settlement on sheets of paper, but one farmer required that I drew the map while he described the landscape.

The third stage involved propositional mapping resulting in mental sketch maps that re-interpreted the farm settlement scheme and imagined the CFS. Several participants preferred or could only give a verbal rendering of what they felt – their spatialities. In one case, it was indeed a vivid description of features required in a community-owned farm settlement. There was a fourth stage, which involved transect walk (See Fig.3.6). The Ejioku CDA was interested in exploring ways of transposing the fictional plan of the Youth Community Farm Settlement into a real-world context. They proposed some sites in the nearby villages of Ejioku. Yadiran was initially selected, but the transect mapping eventually took place at a proposed site in Elegbada village (Fig.3.6). I carried out transect mapping at Elegbada with six participants, two each from Ejioku and the villages of Elegbada and Ariku.

The transect-mapping activity involved validating and verifying the transposition of spaces into the real-world landscape. This led to the re-sketching of the formerly hand-drawn maps to bring them nearer to actual reality. Yet as a wrapping-up activity, the discussions during the transect mapping provided avenues for the triangulation of data (Denscombe, 2010; Maxwell, 2013). Nonetheless, there was a slight difference in the details secured from the two maps in the CBM exercise. In addition, there were specific steps in obtaining the MM and the MSM.



Fig.3.6 Returning with Villagers from the Transect Mapping in Elegbada Village (Source: Author, 2020)

The three steps involved in obtaining the Mental Maps during the interview followed Lynch's (1960) model with some modifications. For the mental map expressed on the topographic base map, the three steps were first, a brief map reading by participants meant to identify and locate existing features to orientate their mental representation of the geographical space and conception of the agricultural landscape. Thereafter, I asked the participant to recall existing farm-villages in the Northeastern Ibadan rural hinterland. As aforementioned, this was to ensure participants express farm villages that are currently relevant in the everyday agrarian economy, which are silenced in state promotional map productions. Secondly, request participants to inscribe by marking and labelling the relative locations of the farm villages on the map space. Thirdly, discussing the agrarian productions and identifying problems of the marked and labelled farm villages.

It was during this mental mapping exercise that participants linked the researcher with some farmers in villages such as Edun, Oore and Orile-Igbon to explore further the identified and discussed problems. Owing to the public health emergency, I provided ten topographic base maps for participants in each of the towns of Lalupon, Erunmu and Ejioku to be marked at their convenience. However, only eight base maps that I oversaw reflected the spatial cognition of the farm village landscape, the other returned base maps did not reflect this information but dealt with issues beyond the interest of the study. For instance, there was an expression of space similar to map art (Wood, 2010), but they did not address the issue of existing farm villages. Likewise, there were base maps with markings on boundary dispute issues as interpreted by some participants. The eight MMs, which reflected the toponymic geographies of farm villages, were three from Lalupon, one from Ejioku and four from Erunmu. However, some participants who declined visual mapping partook in the interpretation of the MMs.

The procedure of Mental Sketch Mapping involved three steps. As aforementioned, I used mental sketch mapping to elicit the spatial perception of the existing state-owned farm settlement at Lalupon and the imagined CFS at Ejioku based on focus group questions (See Appendix 8). First, I asked about the image of the real or imagined space often given in verbal description as in Chapter 6. Second, there was a request to participants to draw a map of the real or imagined space (See Appendix 8). I made the request to produce an imagined map of the CFS imagination to all participants in the case study towns but only the participants of the Ejioku Youth Development Association fully responded. Hence, the focus on the translation of verbal representations, given in Chapter 6, into visual image in Chapter 7, was the geographical imagination of the Ejioku participants. Other participants at Erunmu did not respond in time before the end of the duration of the fieldwork.

Third, there was a detailed discussion about the mapped features on the map. For instance, during one of these discussions, the Ejioku Youth Development Association thought of re-drawing their maps to express clearly their aspirations. In these mapping exercises map production, circulation and use by citizens and the researcher were simultaneous. I collected three sketch maps visualising the actual space of the Lalupon Farm Settlement from farmers and one from a local government agricultural officer at Iyana-Offa. Three sketch maps visualised the imagined space of the CFS produced over time by the participants at Ejioku. Although I made photocopies of the second hand-drawn map for each of the 15 participants to further explore their perspectives of the

imagined space, only the previous and latter hand-drawn maps reflected the main ideas of the CFS. Several participants showed interest in the CBM in the case study towns but not all returned the base maps or sketching.

Ethnographic Data Collection: Challenges

A foremost influence on the citizen-based mapping process was the impact of the public health emergency, the Covid-19 Pandemic. Having secured the permission of the Human Research Ethics Committee (Non-medical) of Wits University in November 2019, the coming of national lockdowns owing to the pandemic, for instance, in March 2020 in South Africa, meant the need to revise the procedure of my entire fieldwork in line with a developing global public health situation. Indeed, I could not conduct several FGDs in Nigeria as I had earlier planned. For example, owing to the pandemic, there were cancellations and suspensions of CBO meetings, until further notice, as the lady-chairperson of a Community Development Association (CDA) informed the researcher. Hence, there was further revising of my field techniques, to ensure my safety and those of the participants.

Having intended to reach an equal amount of the elderly (50 years and above) and youth (18-35 years), I replaced the focus of my participant group with the youth but exploited available opportunities to meet older participants without endangering them. Older people formed the main vulnerable group in the pandemic. Thus, I handled contact with the elderly participant group where and when opportune with the mindfulness of physical distancing as required by public health regulations. For instance, I conducted a small FGD of three older participants, a man and two women, at the Lalupon farm settlement. However, there was a general avoidance, cancellation or reduction of regular contact with the elderly. Also, departing from the earlier plan, I replaced group map-making in FGDs with individual map-making in the few FGDs and interviews conducted. In addition, the public health emergency also partly informed my acceptance of drawing the verbal descriptive geographies of participants who required that I do so. Again, I conducted only one transect mapping at Elegbada village, where there was less human contact. Besides, I modified the questions initially planned to involve the transect walk such as issues on soil and agroforestry (Appendix 8). However, the researcher collected GPS readings during field observations across the case study area.

This public health emergency meant the need to be creative and resourceful in data collection (Michelle Williams, Personal Communication, 2020). Hence, I modified the plan to carry out on-the-spot mapping during the FGD. For example, in some cases, I requested participants to do the mapping at their leisure, leaving them the drawing materials. Again, in several instances, I relied on phone calls to clarify participants' knowledge of mapped features in the locality. Again, I used email communication to collect information from senior government officials, particularly when the state government secretariat was under a partial lockdown. In addition, I replaced the ethnographic observation of almost all the planned transect walks with field observation by myself while making the observed feature a subject of conversation in interviews with participants. Additionally, photographs of such features taken on my phone served to initiate such conversations. Furthermore, I was unable to secure the best scanning services for some of the citizens' maps at the University of Ibadan, before I returned them to participants, owing to the lockdown of the campus. Therefore, I relied on the scan I made through my phone but made black and white photocopies of the maps at Olodo town near the case study area.

There was another important challenge in data collection. A key informant at Ejioku refused the audio-recording of our conversation. He did not give this permission because, as he argued, he was involved in local politics. He was a former councillor in the Local Government Legislative Council. However, the same participant granted permission for audio-recording the interviews held at Elegbada village where other members of CBOs were present. Similarly, at the Lalupon Farm Settlement, a participant declined the audio-recording of our conversation. In both events, I had to rely on traditional ethnographic note-taking. Furthermore, at the end of two mapping interviews, two participants at Lalupon had their mental sketch maps returned to them after receiving their consent to make copies as a record of the mapping exercise.

3.5 Data Analysis

3.5.1. Critical Cartographic Approach

Following Crampton (2001), I adopted an analytical framework consisting of two main themes of textual analysis and a critical mapping implication. The two themes framed the writing of the socio-cultural history and politics of cartography in this thesis. The two thematic approaches are, firstly, an investigation of the social-cultural history of maps as a representational practice characterised by historical contingency. Secondly, an investigation of the politics of maps through

the examination of power discourses – seeing maps as strategies and relations of power-knowledge. The critical mapping implication in this framework engaged the importance of diverse perspectives and multiple maps, as the basis of social and emancipatory cartography discussed below in Section 3.5.3. This ethical concern of Harley (1990), reiterated by Crampton (2001, 702), affords the production of multiple maps, by "promoting exploration rather than presentation, contingency rather than finality".

The works of Michel Foucault inspired Harley's theorisations of representation in writing cartographic history. Hence, the three routes of investigation in the above critical framework reflect a Foucauldian approach (Foucault, 1966; 1977; 1972). The socio-cultural history of maps, grounded in Foucauldian archaeological analysis, seeks to 'de-naturalise' the map (Crampton, 2001; Edney, 1996; 2019). In addition, the examination of the politics of maps, grounded in the archaeology and genealogy of power discourses, seeks to understand "the production of the subject by the map rather than to explications of the maps meaning" (Crampton, 2001, 702). Besides, I associate the ethical concerns in this research framework with the Foucauldian concern for the possibilities of resistance and re-subjectification, as explored in Section 3.5.3 below.

Indeed, the rules of cartography and the discourse of map power in Harley's theorisation are the episteme of a Foucauldian perspective. Therefore, based on a Foucauldian discourse approach, Harley (2001) suggested a historical method that involves the technical rules of cartography and the social rules of cartography. The former investigates the scientific process of mapmaking, that is, it examines the technical and cultural production of maps. The latter is concerned with the socio-historical context that traces the categories of knowledge imbued on maps from the society. The pairing of this historical method with Edney's (2019, 44-46) triad scale of map analyses affords directing investigation at map production, use and circulation.

Research Procedure

There was data combination for analysis in Chapter 4. In Section 4.2, I used maps, archival materials and historical sources. For instance, I used annual colonial reports to examine the contexts of map production, circulation and use. In the first analytical task of Section 4.3.1, I used government reports and academic literature to examine the object of discourse. Production of almost all the texts was in the late colonial period (1945-1959), but one text was a published work in the 1960s discussing development in the late colonial period. The academic literature includes

six geography texts from British geographers and one economics text from an American economist.

In the second task, I explored the discursive formation or stereotypical knowledges based on documentary data, which included ten academic texts and government reports. The production of this literature was between the 1940s and 1960s; they include some text I had used in the previous task. Except for one American, all the other authors were British. In the third task, I used documentary data and archival materials to examine developmental intervention. The documentary data includes five academic texts written by four British and one African author and government reports. The archival materials are administrative correspondences of British colonial officers in the Political, Agricultural and Survey Departments in Ibadan and Oyo Provinces of Southwest Nigeria (Appendix 13). The production of this academic and administrative literature was between the 1940s and the 1950s, while the production of the archival materials was between 1945 and 1959. There were several maps documented in the archival materials.

In Section 4.3.2, to explore actors and institutions, I used documentary data, which discussed these themes. Three of the seven main documents were produced during the period, while the other documents, which discussed the themes, were produced before or after the period. Again, I used academic literature to examine the mentality of the actors and institutions. For the task of identifying forms of knowledge in the 1950s and 1960s, I examined documentary data published by the government between 1952 and 1975. To explore the techniques of power by the notions of hierarchal observation, normalisation and regulatory examination, I used three maps and documentary data.

Historical Map Analysis

The historical map analysis involved the periodisation of the historical narrative, the maps analysed within these periods and specific map interpretations. The historical analysis of maps involved four periodisations to which I placed the 59 maps discussed in Section 3.4.1. The periodisation was based on evidence of geographical Othering manifest on the maps, historical events and the map audience (See Appendix 11). These categorisations of othering involved visual examining and coding of the landscape content of each map. In addition, the reflected othering practice was associated with different classes of map audiences. Again, the historical events used to characterise the periods include the informal empire, the commencement of colonialisation, the

socio-economic tranquillity in the inter-war years and postwar development processes (Liebenberg, 2011; Potter et al, 2012; Stone, 1988, 1995).

The four historical periods are the Imperial, Early Colonial, Inter-War and Late Colonial periods (Appendix 11). These periods involved 40, 18, 20 and 13 years and 13, 10, 19 and 17 collected maps respectively (Appendix 12). There are two maps selected for each period except the first period with three maps. The selection of maps within each period was informed by an historical event associated with the colonial state. The concern of this Chapter was the official or semi-official view of the economic landscape. In addition, there was an influence of the reproduction of map contents, map scale, the clarity/resolution of map content and the depicted places on the map selection. Thirty-two of the unselected maps formed part of the contextual analysis of the nine selected maps.

The analytical framework for map interpretation involves two stages; the historical background and map content analysis (Jacobs, 1996; Perkins and Dodge, 2009). The historical context of the map involved two steps. Firstly, there was the interpretation of the technical production of maps involving the mapmaker, map-producing agency and the technique of production. For instance, production techniques involved map drafting, printing and other materials. Also, there was an exploring of the context of map usage by considering the use of the map as book illustration, office map and so on. Besides, this step involves map readership, and it is an aspect of the cultural production of maps.

Secondly, the cultural production of maps examined the wider context of the society dealing with historical, geographical, political, economic and social issues and events preceding, during and after the production of the map (Harley, 2001; Jacobs, 1996; Leuenberger and Schnell, 2010). Alternatively, in some of the maps selected for this study, this second step engages the interpretation of the map from the context of other maps through comparative analysis and interpretation, based on the relationship of the map with the other maps produced by the same mapmaker, map-producing agency or within the same cartographic genre (Harley, 2001; 42-44) (See Appendix 10). Hence, the concern of this stage was the processual approach of production, circulation and use (Edney, 2019).

The second stage, map content analysis, involved detailed scrutiny of the cartographic image (Perkins and Dodge, 2009; Rose, 2016). This examination of the textual structure for the meaning of individual maps employed an iconographic method (Harley, 2001, 47-48). Iconographic

analysis in the cartographic textual approach involved three levels of interpretation (Harley, 2001; 47; Leuenberger and Schnell, 2010, 806). These levels are the conventional sign, the topographic or place identity and the ideologies of space (Harley, 1988a). The conventional sign system examined the production of space through map symbolisation. The topographic identity described the locational, place or landscape information on the 'map face'. The ideologies of space examined the symbolic meaning of the map through the investigation of subliminal geometries, cartographic silence and representational hierarchies (Harley, 1988a; 289-294). However, the focus of the cartographic landscape analysis at this level was the *silences in maps* concerning the agricultural landscape through scientific and socio-political discourses (Harley, 1988b). This ideological examination involved discourse analysis as a complement or adjunct of the map content analysis. Hence, the stage focused on specific spatial discourses that gave semiotic stability to individual maps (Edney, 2019; Kitchin and Dodge, 2007).

Cartographic Discourse Analysis (Colonial Discourse)

Colonial discourse refers to the politics of colonial knowledge production and the belief system underlying the production of the 'Other' (Blunt and McEwan, 2002; Loomba, 2005; Young, 2001; Zein-Elabdin, 2011). Cartography as either an administrative measure, scientific statement or regulatory tool, was itself a scientific discourse and a crucial element in the colonial development discourse (Legg, 2007, 25; Harley, 1988a). Adopting a discourse approach, I constructed a colonial discourse analytical framework (Foucault, 1972; Graham, 2005; Hewitt, 2009; Hubbard et al, 2002; Pollard et al, 2009; Zein-Elabdin, 2011) for Section 4.3.1 of Chapter 4 to examine the embedding of *cartographic discourse* in the colonial development discourse. As Perkins and Dodge (2009, np) observe, "here the emphasis of an interpretation shifts towards the political work of the mapping and away from any literal or individual meaning of the map symbols or the map as a whole". Therefore, colonial development discourse, within the framework of discourse analysis, as used in this thesis, involved three tasks.

First was the exploration of cultural difference (McEwan, 2009; Zein-Elabdin, 2011). The articulation of the economic dimension of difference led to the definition or recognition of the problem(s) that defines the state of underdevelopment. This involved the production of the object of scrutiny or discourse. The object of discourse is the knowledge production of peasants' *land use* on the agricultural landscape. I categorised this object of discourse as shifting cultivation. In

examining this metaphor of 'shifting cultivation' (CO, 1948; Hewitt, 2009), I also explored two associated themes of lack of geographic information on land use (Gilbert and Steel, 1945) and the production of map information on land use (Buchanan, 1953; Morgan, 1959a, 1959b).

Secondly, the creation of a discursive space of specialised texts that discussed and dissected the problems based on the production of stereotypical knowledges (Graham, 2005; Zein-Elabdin, 2011). This was the discursive practice of a particular field of knowledge – *cartography* in this case. Thus, I examined the use of cartographic reason in understanding the problems of African agriculture (Gregory, 1994). The agrarian problems I identified in the literature were coded as irregular fields (Floyd, 1969), small farm sizes (Dudgeon, 1922; Grigg, 1966) and the lack of cartographic information on farm/land use patterns (Moss, 1959; Prothero, 1955).

Thirdly, the framing of problem or object of discourse – peoples, land and farming practices as weak, unproductive, unscientific, etc. justifies developmental intervention and reconstruction of the lives, livelihood and landscape of the subject people (Kippler, 2014; Zein-Elabdin, 2011). This involved the application of cartographic reasoning to solve the identified subaltern agrarian problems. Hence, the object of scrutiny becomes the object or target of discipline through the visualising practices of cartography. I categorised the solutions examined in this task as rational planning of the rural economy (Steel, 1948), land consolidation/compact landscape (Floyd, 1969) and rational farming units/reasonable farm sizes.

Cartographic Discourse Analysis (Governmental Discourse)

Ettlinger (2011, 538) observe, "governmentality offers an analytical framework that is especially useful towards connecting abstract societal discourses with everyday material practices". Following Ettlinger (2011) and Morton (2010), I constructed a governmentality analytical framework for Section 4.3.2 of Chapter 4. Therefore, governmentality analysis, here, explored state cartographic power in creating modern agricultural subjects and by implication the identity of the modern agricultural landscape. This cartographic governmental analysis considers, "the organisational, cultural and political context around the map and reflect[s] on how visual discourse helps construct a subject who might be governed" (Perkins and Dodge, 2009, np). It is the deploying of visual discourses to aid other discourses – the farm settlement scheme, agricultural modernisation and so on (Brouwer, 2019).

This analytical framework of governmental discourse involved four tasks. The first task involved, as Morton (2010, 24) suggests, the examination of "actors and institutions" seeking to govern the conduct of the 'subject'. The institutions I examined include the leadership of the Western Nigeria Government, the citizenry and international organisations (Crowder, 1966; Ogunseye, 1960; Oluwasanmi, 1966). Secondly, the task of identifying forms of knowledge and discourses that justify this governing, which constitute the "technologies of government" (Morton, 2010, 24). I examined the political technologies of agricultural policies of 1952 and 1959, and the Western Nigeria Land Settlement Scheme. This second task also involved, as Ettlinger (2011, 543) itemise, "identifying mentality or mentalities that connect a regime of practices". To do this, I explored the categories of the notions of modernity (World Bank, 1955), *Olaju* [Enlightment] (Ayandele, 1974; Peel, 1984) and *Afenifere* [Well-Wishers] (Ayoade, 1985).

Thirdly, there was materialising of techniques of power through governmental technologies. This task involved an examination of "how these knowledges are articulated and put to use", that is, "how they are" used to define the subject "as a category of people to be governed and the task of governing them" (Morton, 2010, 24). It engaged the materialising of the mentalities through the techniques of power mediated by governmental technologies of cartography. I explored these techniques of power using ideas of hierarchal observation, normalisation and regulatory examination through different spatial practices (Foucault, 1995[1977]). The third task explored different geographical spaces of ordering in three steps. As Ettlinger (2011, 545) contend, "specify techniques of power relative to the scale at which power is targeted".

The first step examined techniques of biopower at the scale of the regional landscape. I examined the observational technique of territorial enclosure and land production. Likewise, there was the normalisation of agroecological zones and typologies of farm settlements. In addition, there was regulatory control of centralised decision-making based on the two previous techniques. The second step explored techniques of modern power as a combination of biopower and disciplinary power (*Ibid*, 547), viewing the farm settlement as a distinct modern village landscape. To do this, I investigated the 1960 Layout Plan of the Ilora Farm Settlement in Oyo State. I discussed the observational technique of zoning and plot organisation. There were normalisation techniques through modernising agricultural identity and attempts at the conformity of traditional farming to modernity. Again, I discussed the regulatory technique of disciplining the farm settlers. The third step involved a micro-scale examination of disciplinary power on the farm-holding

landscape. Here I did a detailed examination of plot organisation, discipline and examination of a farm settler based on a 1967 Spot Map of the Igbogila (Sawonjo) Farm Settlement.

Finally, there was the effect of governmental technologies on the landscape and the subject. Ettlinger (2011, 545) argues that there is a need to "examine the (positive and negative, intended and unintended) effects of techniques of power". I examined the intended objective of rational farm planning, map use by farmers and conformity to modernisation by traditional farmers. Likewise, I considered the positive consequences of ridge-making and the negative consequences of a new binary of rural Othering.

3.5.2 Landscape Analysis

Landscape Analysis (Chapter 5): Research Procedure

The analysis in Chapter 5 was based on combined data types. In Section 5.2, I examined a collection of visualisations, including ten maps, two infographics and one figurative pictogram, to illustrate visual representational practices in the three periods. In the first period, I explored five maps produced between 1965 and 1979. Three of these maps are illustrations of the state-owned farm settlement in two academic journals and one government report. The other maps include one map in a series of state maps and another map in an atlas. Although these maps and associated documentary data discussed the farm settlement scheme in Nigeria, *I only investigated the scheme within southwest Nigeria*. I used one map in the second period as an illustration of the reproduction of modernist representations in the social process of education. Several NTMs produced by the Federal Surveys of Nigeria in the 1960s depict the agricultural landscape. These NTMs are often used by the state in educational practice. However, NTM Lagos Sheet 279NW illustrated this educational practice as used in a high school external examination in 2000. The map examined was a 2000 reprint of the NTM 279NW for this educational purpose. Besides, I used recent newspaper reports of the landscape conditions to compare the reproduced modernist view of the 1960s. In the third period, I used three maps, two infographics and one figurative pictogram to explore the representational practice of state-sanctioned capitalist modernity (Harvey, 2005a; Lawson, 2010). The Oyo State Government produced all the visualisations between 2017 and 2021. Besides, I used documentary and ethnographic data based on news reports and interviews respectively.

In Section 5.3, I employed documentary and ethnographic data. The documentary data included archival materials and other documents. For example, I used reports of administrative correspondences in the early colonial period (Appendix 13) to compare anthropological and historical literature on the geographic features of the traditional farm village. In the latter part of the Section, I used ethnographic data, which included interview data, field observation and field notes from land surveying practice.

The Modern Landscape

In Chapter 5, the landscape study based on visual representations comprises three periods in Section 5.2. This periodisation was based on the trends of development ideologies (Brandt and Bruntrup, 2012; Danby, 2009; Lawson, 2007; Radcliffe, 2012) (See Appendix 15). In the first period, I categorised the themes in these maps as cash crop production, the comparative advantage of the ecological zone, rationale for soil studies, rural migration towards the rational farm landscapes and the challenges of agricultural modernisation (Udo, 1965; Johnson et al, 1969; Western Nigeria Soil Survey, 1975; Grenzebach, 1978; Agboola, 1979).

There was the examination of one map in the second period used as an illustration of the reproduction of modernist representations in the social process of education. The map analysis highlighted the actuality of the landscape not only in 2000 but also in recent times (2016-2017). I coded the map as signifying modernity and the landscape depicted reproduces the rational landscape and the anti-political economic imaginations of traditional agriculture (Gregory, 1994; Walters, 2010).

In the third period, I highlighted the active vision (Ware, 2008) in these visualisations to emphasise the active construction of popular consent to neoliberal agricultural imaginary. Therefore, the examination highlighted the disparity between the visualised knowledge and the actual reality of the state-owned farm settlement landscape (Hewitt, 2009). I categorised the themes emergent in the maps and discourse as land resource potential, revamped agricultural landscape, agricultural investment and economic othering.

The analysis of specific maps in this landscape study adopted the iconographic method (Harley, 2001; Panofsky, 1972), but used four levels of interpretation (Black, 2003). These levels are historical and geographical context, signs and symbols, topographic identity and ideologies of the landscape. The contextual background also includes map production, which explored the

mapmaker or mapmaking agency, the authorial intention, and the context of production (Hanna, 2010; Schein, 2010). Likewise, the level of conventional sign examined the map symbolisation and the graphic impression. This level involved the analysis of the visual design of the landscape, focusing on the construction of an active vision in the post-neoliberal period (Radcliffe, 2012; Ware, 2008). In addition, the topographic identity described the locational, place or landscape information on the 'map face' (Harley, 2001). Again, the ideologies of landscape examined the symbolic meaning of the map (Baker, 1992; Wylie, 2007).

The Subaltern Landscape

The historical and cultural landscape analyses in Section 5.3 employed the basic analytical frame of the cognitive map and mapping (Downs and Stea, 1973; Kitchin, 1994). This frame examined four periods in the development of the outlying agricultural production space, which I conceptualised as the notion of *Agbe Oko d'Oko* (See Appendix 15). The periodisation emerged from the historical political economy of southwest Nigeria and development ideologies (Hopkins, 2020; Lawson, 2007; Radcliffe, 2012; Webster and Boahen, 1980). The two main analytical levels are the form of representation and the mode of communication. An historical and geographical context preceded this analytical framework (Black, 2003).

The analysis of representation involved the conceptual image or mental picturing of space (image schema) (Danesi, 2004; Hall, 1997). The two types of information examined are necessary for "the locations and attributes of phenomena" (Downs and Stea, 2011[1973], 315). There was an examination of the relative shape and sizes of the farm landscapes before the locational and attribute information. Locational information examined direction and distance. On the other hand, the attribute information includes denotative and connotative aspects of the phenomenon. Attribute information examined the context of representation, which was the framework of meaning associated with the mental representation - social, political and environmental settings (Danesi, 2004; Jessop and Sum, 2001). This cognitive map examination attempts historical deconstruction and (re)construction of spatial perception and environmental cognition employed in everyday spatial behaviour.

The analysis of communication described the mode and source of geographic information (Danesi, 2004). It engaged the acquisition, transfer and reproduction of the conceptual picturing of geographical space. The main mode of semiotic communication examined was verbal

communication as written and spoken discourses. Verbalisation of spatial imagery involved processes of verbality associated with communicating the perception of space. For example, there was the verbalisation of observation, thought, feeling and need (Leonard, 2012). However, I interpreted some pictorial imagery of environmental cognition along with the conceptual picture of space in Section 5.3.3 and Section 5.3.4. In addition, discursive sources examined direct and vicarious approaches to knowledge production (Downs and Stea, 1973).

There were examinations of the farm village in the four periods as a spatial object at different spatial scales. First, it involved the traditional farm village at a local scale in the pre-colonial period (1500s-1800). Second, there was the farm village landscape of the Ibadan rural hinterland during the cultural encounter between Africans and Europeans in the nineteenth century. Third, there was an examination of the modifications or changes evident in the farm village in the late colonial period. Thereafter, I explored the fourth (post-neoliberal) period, which involved rethinking and repositioning the farm village within the 'an alternative modern' settlement scheme.

Landscape Analysis (Chapter 6)

In Chapter 6, the landscape analysis I conducted employed the iconographic technique in analysing visual data in Section 6.2. In contrast, I adopted an ethnographic technique to analyse the verbalisations in Section 6.3. I used combined data for analysis in the Chapter (Aitken, 2005). I used three maps in Section 6.2. However, there was also the use of documentary and ethnographic data. For example, the ethnographic data involved the participants' comments concerning the visual representation of the local landscape in the state maps. I relied on ethnographic data in Section 6.3. The analyses in Chapter 6 focused on the contemporary post-colonial landscape.

The landscape analysis involved the examination of specific maps using the iconographic method (Harley, 2001; Panofsky, 1972) but used four levels of interpretation (Black, 2003). These levels are historical and geographical context, conventional signs system, topographic identity and ideologies of the landscape. In the first level, I explored the historical and geographical context of the map production involving the mapmaker or mapmaking agency, the authorial intention, and the context of production (Hanna, 2010; Schein, 2010). The three maps examined were an NTM, a Local Government Map and a Regional Plan produced by an academic geographer/physical planner. The second level analysed the conventional sign system: the map symbolisation and the graphic impression. In the third level, I explored the topographic identity of the landscape by

describing the locational and place information on the 'map face' (Harley, 2001). Finally, I examined the ideologies of landscape to highlight their linkage with the broader socio-economic processes (Black, 2003). This involved the symbolic meaning of the landscape evident on the maps, which I categorised collectively as signifying modernity, rational planning, silence on social welfarist agricultural projects and anti-political imagination of traditional agriculture.

The analysis of verbalised geographies in Section 6.3 had two levels of analysis of two different landscapes. The first landscape was a counter-geography of the existing state-owned farm settlement scheme at Lalupon by farm settlers. The second landscape was the imagined landscapes of CFS in Northeastern Ibadan rural hinterland provided by participants. The two levels of ethnographic data analysis include mental representation and ideologies of space (Le Compte and Schensul, 1999). The first analytical level explored the mental representation of the existing or imagined landscape. For the existing farm settlement, I examined the descriptive geography of the actual reality of the state-owned agricultural landscape, which I coded as farm settlement area or size and the farm holdings. Conversely, for the imagined landscape, I explored the spatial perceptions of the CFS imagination verbalised by participants from Lalupon, Ejioku and Edun. In the second analytical level, I analysed the politics and ideologies embedded in the mental representations of the landscape. For the state-owned farm settlement, I examined the counter-narrative to the state representation of the farm settlement landscape categorised as pen size, corn farming, physical infrastructure and the divergent notions of commercial farming. By contrast, I examined the hybridised logic of the CFS, which I coded as material development, field practice and local geopolitics.

3.5.3 Mental Map Analysis

The analytical framework for interpreting the ethnographic mapping in Chapter 7 involved three themes. These are the cognitive knowledge of the farm village landscape in Northeastern Ibadan rural hinterland, counter-imagination on the state-owned farm settlement and cartographic imagination of CFS. Hence, there are three interpretative sections based on the analytics of the citizen maps. The analytical techniques of the two types of maps complemented each other in interpreting the mapping process (Bartram, 2010; Gieseking 2013, 12; Rose, 2016). There are separate analytical components for the two types of mental maps obtained. I defined the analytical component here as categories of information reflected by the map (Kaisto and Brednikova, 2019).

The analysis of mental maps derived from base maps involved two steps. First, I used qualitative content analysis to prepare a coding frame for the content of the base maps (Kaisto and Brednikova, 2019; Rose, 2016). The main content of externalised mental images was the place names indicated on the topographic base map but categorised into three major codes of toponyms, spatial relations and socio-spatial relations. Second, the analysis and interpretation of these categories involved their sub-categories (Gieseking 2013). Toponyms, constituting the spatial object of interest, included the number of place names and the frequency of particular place names on each mental map. I analysed these toponymic geographies related to the place of the interview and the gender of the participants. Again, spatial relations involved the locational knowledge of the placement of the place names (Downs and Stea, 1973; Reiger, 1996; Tversky, 2000). I interpreted the sub-categories of direction and distance on the base map according to the place of the interview, the gender of the participants and their mode of representing the information. In addition, socio-spatial relations focused on attribute information concerning the cultural context behind the mental images of the places externalised by participants (Sletto, 2013; Caquard, 2015). This involved evaluative and descriptive sub-categories of village landscape and visual thinking on the landscape. I interpreted these sub-categories based on field observation and interview data.

The analysis of the mental sketch maps derived from visualising technique involved three steps of an iconographic method (Harley, 2001; Panofsky, 1972). These interpretative steps are map production, place identity and the ideologies of space. Map production examined the social and technological modalities, graphic construction, spatial abilities, and drawing skills of visualising mental images (Bartram, 2010; Gieseking 2013, 12; Rose, 2016). Place identity described the visualisation of the specific landscape on the sheet of paper. This place description was either the physical and social geography of represented physical landscape or the imaginative geographies of a fictional landscape. Almost all fictional landscapes represented during the exercise had inspiration from the reality of places. In addition, comparative geography of the real or imagined representation of the landscape explored a comparison of the visual image of the place with the current biophysical landscape. The ideologies of space examined the spatial politics based on themes of environmental cognition, spatial perceptions, lived experiences, thoughts and imaginaries of participants (Beckert, 2011; Bradley, 2013; Harley, 2001; Hincks et al, 2017).

3.5.4 Integrated Map: Map Design and Production

Technically oriented visualisation of subaltern imaginaries in Northeastern Ibadan rural hinterland from the ethnographic work was in a series or set of thematic and topographic maps. For instance, thematic maps highlighted the state of abandoned government projects in the area. Similarly, I produced some topographic maps based on a citizen-based content map design (Krygier and Wood, 2005). Owing to their integrative picture, the topographic maps could present a summarised visual narrative of the neglected rural space but also aspiring geographies. Rather than attempt, a purely technical revision of topographical maps, the experimental maps (Crampton, 2009; Corner, 1999; Krygier and Wood, 2016) serves as a foundational geographic framework narrating the central argument in this thesis that maps of economic imaginations provide visual insights into alternative agrarian spatial thought.

Thus, the experimental topographic maps attest to the co-production of knowledge between the researcher, subalterns' imaginaries and a potential visual solution to a relational problem (Kitchin and Dodge, 2007, 342). The automated map-making incorporating subaltern data and a technical framework employed Geographical Information Systems for cartographic design and production (Anthamatten, 2021; Graser and Peterson, 2020; Tyner, 2010). The co-production of geo-cartographic knowledge used QGIS 3.16.12 and 3.16.14 software. I include, as an example, a 1:250,000 experimental topographic map in the concluding Chapter.

3.6 Reflection on Theory and Methodology

3.6.1 Self-Reflection on Methods

England (1994, 83) observes, "reflexivity is self-critical sympathetic introspection and the self-conscious analytical scrutiny of the self as researcher". In this section, I reflect on insights from the methods utilised in this study. Wartmann and Purves (2017) posit, following Tobler's (1976) observation, that drawing abilities are not equal to the possession of geographical knowledge. For example, during the fieldwork, some older women with farming experience were comfortable only with verbal descriptions of the farming landscape. In addition, some younger men provided descriptive knowledge of farm-villages but declined the attempt to draw what they so vividly described. They were maps in the mind (Tuan, 1975). Thus, the rethinking map as a human practice should always consider other map forms like verbal cartographies when engaging rural folks. In

any ethnographic mapping exercise, oral maps have a meaningful contribution to "how African peoples have mapped their worlds" (Bassert, 1998, 24).

There were cases of a heightened sense of drawing anxiety during the ethnographic mapping exercise (Gieseking, 2013). Indeed, there was a drawing challenge amongst some participants during the mapping process such that the researcher ended up drawing some mental sketch maps. For instance, at the Lalupon farm settlement, a farm-settler insisted he could not draw but was eager to contribute his perceptual knowledge of the farming landscape. Similarly, some older folks during the small-size FGD at Lalupon farm settlement rather mandated the researcher to draw while they offer a verbal description in response to my questions. One of them emphatically requested I visualise this information on paper since I was the 'geographer/cartographer'. This was a position they took regardless of repeated explanations that their drawing of a map was the focus of the field research. Thus, the situation re-echoed a point raised by Boschmann and Cubbon (2014, 246); 'Does this act somehow disempower participants, by seemingly removing them from the mapping process?

Nevertheless, employing a visualisation technique and topographic base map work for data collection was complementary to the busyness of the everyday life of ordinary citizens. Base maps had a desirable advantage as a form of geographical reasoning device, i.e., an icebreaker for spatial thinking. Likewise, it afforded engagement with other participants and non-participants alike and kick-started discussions with the researcher. Again, considering the 'covid-pandemic', it made spatial data collection easier. On the other hand, freehand drawing of MSM afforded farm settlers the capacity to counter-imagine the state-endorsed picture of the farm settlement, as they reflect on issues rarely discussed during the Farm Settlers Association meetings. In addition, only a free-hand drawing could accommodate the cartographic evolution of a CFS spatiality attempted by the Ejioku CBO. For instance, the influence of the size of the drawing paper, as Gieseking (2013) notes, was apparent in the concept evaluation and improvement of CFS. It was an exercise in spatial planning as participants continued to reflect on their aspirations in response to questions from and amongst themselves and the researcher.

3.6.2 Positionality

Cook (2005, 16) contends, "that academic and other knowledges are always situated, always produced by positioned actors working in/between all kinds of locations, working up/on/through

all kinds of research relations(hips)". Therefore, being a male, a university-educated person, my historical knowledge, my sub-ethnic background, and my age played active roles in accessing information and relating with research participants. In addition, my identity as an academic researcher rather than a government official contributed to the responses during the fieldwork.

Being a male researcher influenced access to male and female participants. While this afforded easier access to male participants, I was positioned as an 'outsider' to female participants. To illustrate, I approached a group of young women at Erunmu with questions relating to farming in the locality, but they claimed they were newcomers to the area. Perhaps they might have opened up if I was not of a different gender. However, this was not always true in every situation. My university-educated position was also influential in the responses of semi-literate persons. For instance, when I handed over the Participant Information Sheet to a lady-participant who was a CDA executive member, she felt anxious and directed me to another CDA member whom she claimed could answer my questions. She opined that the contact person, a male, who was a university-educated person like myself, was best suited to read and answer my queries.

In addition, my prior historical knowledge of certain persons in the locality concerning the development projects in the communities in the 1960s made access to information at Ejioku and Erunmu easier. Although it afforded me easier contact, I was still an 'outsider' in many respects. My sub-ethnic identity, in one instance, did also shape access to participants' responses. For instance, at Ado-Awaye, the participant on learning that I was from a different sub-ethnic group and the capital city of Oyo State went on to express his dissatisfaction with politicians from the capital city in the way they were handling the material development of the Upper-Ogun area. Hence, his initial responses to my question reflected his political leaning and sub-ethnic bias. In another dimension, a participant at Lalupon wanted to know where I was from in the city of Ibadan; once I told him my lineage, compound and city quarter, he became more relaxed conversing with me concerning the town's politics.

There were circumstances in which a reversal of the power relations situation occurred. This occurred in terms of age and experience during the fieldwork. By way of example, the second-longest farm settler, an older man with almost 30 years of experience at the Lalupon farm settlement lectured me to correct my views on some points I made. It was in the same vein that the older folks requested I make the map of their descriptive geographies. Several participants, at first, thought I was a state government official on field assessment but later knew I was not. This affected

their response to my questions and interactions. Re-emphasising I was not a state government official was very important. For instance, at Edun village, one key informant said that government officials usually come to make unfulfilled promises. Therefore, no farmer or villager was ready to entertain answering questions from any state government official; hence, if I did not make my position very clear, I will not receive any response.

In addition, some participants had mixed feelings regarding my actual position, whether I was a government official or an academic researcher. This occurred in government institutions. This feeling, it seems, revealed their state of mind on the issue of rural development and administrative politics. For instance, at Iyana-Offa, the participant opened up to answer my questions passionately because he "did not know how far my report will go" (Interview, November 2020). He thought I had come to assess the deterioration in local government services. In contrast, these mixed feelings had a different response in state-owned farms in Lalupon, Ajeja and Ijaye. I observed that it led to 'guarded answers' from some farm settlers on the conditions or status of the state-owned farm settlement. I promptly returned their sketch maps, after the mapping interview, to reassure these farmers that I was not a state agent.

3.7 Conclusion

The above discussion on my methodological approach provides the epistemological framework for this thesis. This approach serves as the foundation for my thesis design, data collection through archival research, literature search and fieldwork as well as data analysis. The paramount focus of this research is the cartographic expression of local peoples concerning Community-owned Farm Settlement Schemes. To do this requires examining the contributions of state cartography in defining what was economic while structuring and imposing a modernist subjectivation on the people and the agricultural landscape. In addition, it requires an attempt at understanding how subalterns have always mapped the agricultural landscape. Hence, renegotiating the political subjectivities requires engaging subaltern epistemologies and ontologies of the agricultural landscape.

By placing the local people in the centre, I aim to 'decentre' the dominant view of modernist cartography in its tireless practice of landscape (re)production in the image of capitalist modernity and re-centre it with a social cartographic practice of local spatial knowledge. Hence, the resulting subaltern cartographies were a deliberate engagement with social construction and post-colonial

inquiry. Reflecting on the emancipatory traditions of postcolonial inquiry, I attempted a re-engagement with the 'technical' cartography, re-framing it within the context of the social production and the self-defined developmental concerns of the citizenry. Furthermore, I presented a visual summary of these subaltern imaginaries in a citizen-based topographical map that provides a transformative power and a practical engagement with the post-colonial state in dialogues of bottom-up agricultural development.

CHAPTER 4 STATE CARTOGRAPHY AND THE AGRICULTURAL LANDSCAPE

4.1 Introduction

The Yorùbá region of Nigeria gradually came into the world system of British capitalist imperialism in the mid-nineteenth century. An empiricist approach to the cartographic history of this region narrates a teleological, neutral representation in the development of mapping (Crampton, 2010; Balogun, 1989; Edney, 2019). However, can this apolitical stance of state maps, under critical examination of the cartographic record, reveal a neutral construction of the economic landscape? To understand in what ways cartography and geographical knowledge production impacted agrarian development in colonial and post-colonial rationalities, this chapter examines the political-economic context of the productions of space. I argue that state cartographic representations are cultural practices implicated in the producing and governing of the agricultural landscape.

To do this, I present a selective exploration of state maps to examine the history and politics of cartography of this region. To develop this argument, I engaged in this chapter the interconnection of cartographic history and the power of state maps. I employed the notion of geographical othering to examine the interconnection of economy and representation through three associated concepts. The concept of cartographic silence states that maps actively do the work of politics (Harley, 1988b). The concept of cartographic anxiety emphasises the apprehension, to make legible the reasonable features of the agricultural landscape while excluding other geographic knowledges (Gregory, 1994). The concept of cartographic governmentality argues that maps are everyday tools in the normalising exercise of state power, producing citizen-subjects through discourses and practices (Crampton, 2010).

The second section in this chapter explores the historical production of the economic landscape in the process of territorialisation. This process of territorialisation continued throughout colonial rule. In the third section, I examined the cartographic power of the state in two sub-sections. First, cartographic anxiety that sought to represent the indigenous agrarian land-use in a fixed cartographic space drew attention to a space of economic difference. Second, stereotypical cartographic knowledges created a

conventional framing of subaltern agriculture leading to the justification of modernist intervention, which deployed cartographic rationality to modernise the landscape.

4.2 Socio-Cultural History of State Maps

The cartographic history of the modern political state in Yorùbáland reflected concerns with exploration, administration, and development. Although presented as an objective, neutral representation, the cartographic construction of territorial space during the colonial encounter reflected commercial and economic discourses (Crampton, 2010; Vandergeest and Peluso 1995). I argue that the territorialisation of the colonial state was not only a cartographic reflection of physical reality, but also a spatial production of colonial capitalist modernity. This capitalist image reflected in economic objectification, partial visibility, urban-rural dichotomy and rural marginalisation. So, how did capitalist modernity incorporate indigenous spatial knowledge into scientific maps? In what ways did cartographic production of space reproduces the image of capitalist modernity? What was the consequence of these productions of space for the political-economic discourse of agriculture?

4.2.1 *The Imperial Encounter in Yorùbáland*

State cartography of Yorùbáland emerged through interrelations with scientific, philanthropic and commercial activities. Geographical explorations financed and conducted through these activities produced "unofficial maps" which influenced the "official mind" of Britain (Prior, 2013). Therefore, I argue that the geographical knowledge production of the Yorùbá agricultural landscape involved objectifying the cartographic gaze of capitalist modernity. Cartographic maps of Yorùbá landscape in the nineteenth century reflected an economic point of view. In the mapmaking process, incorporated indigenous spatial knowledge of the agrarian landscape drew attention to locations of commercial opportunities. This cartographic gaze of the agricultural landscape hastened the colonial project, whose primary aim was economic (Scott, 1998, 225). These gazes are evident in the maps produced from the geographical expeditions of Daniel May, Alvan Millson and Frederick Lugard. Technologies of space production

presented as ‘objective representation’ of the territory vigorously aided economic opportunities (Crampton, 2010).

Daniel May RN, in Yorùbáland, 1858

In 1860, a map of Yorùbáland illustrated the travel account of Daniel J. May of the British Royal Navy (RN) (Fig. 4.1). The Royal Geographical Society (RGS) published the map in its journal of 1860. The English cartographer John Arrowsmith (1790-1873) drew the map (Herbert, 1983). One of his earliest maps of West Africa and the Niger hinterland appeared in the 1834 edition of the *London Atlas of Universal Geography*. John Arrowsmith specialised in making maps of foreign countries. Indeed, this map of Yorùbáland was one of a several small-scale maps published in the journals of the RGS (*Ibid*, 1983). Thus, his previous cartographic works, particularly topographic features of coastlines and rivers possibly influenced the map illustrating D.J. May’s travel account.

Nevertheless, it was a map based on the rough draft made by Daniel May. It was not until November 1885 that the society started publishing hand-drawn maps for the meetings (Herbert, 1983); thus, the sketch map of D.J. May was not available. The sketch map drawn by D.J. May had aided the comprehension of his travel narrative. For instance, in the process of sketch mapping, he took astronomical and barometical observations. These measurements probably influenced the projective technique of the published map and depiction of the elevation of mountainous features. He undertook all these observations in the “hope and belief that the data I have obtained will yield a relative map of the parts I visited” (May, 1860, 232). Since the 1850s the Royal Geographical Society (RGS) loaned instruments to travellers (Herbert 2016; Withers, 2013), so Daniel May, a Royal Navy (RN) navigating officer, might had accessed this facility or made use of service equipment. Besides, the RGS usually offered advice to intending travellers to ‘unknown lands’ (Ogundiwin, 2021).

Before Daniel May’s expedition, there had been geographical explorations in Yorùbáland (Withers, 2004). The Niger Expeditions organised by the African Association, later known as Royal Geographical Society, commenced the cartographic mapping of Yorùbáland. For example, the map titled “*The Course of the Quorra with their Route from Badagry to the Northward*” showed the travel route of Richard and John

Lander in Yorùbáland in 1830. The map face was blank except for the towns and villages along the route and the labels of 'Kingdom of Yarriba' and 'Kong Mountains'. In the 1840s, British government officials and the Lagos merchants' community became increasingly interested in overland and river transportation within and around the Yorùbá country since it was the only means of accessing the agricultural markets of the hinterland (Ajayi, 1965). In 1841, Captain Beecroft, the British consular agent at Fernando Po, ascended the Niger River and explored part of the Northern Yorùbá hinterland. Also, there were mapping activities on the Atlantic coastline of the Yorùbá country (Glover, 1895). In 1857, the British Admiralty published a chart of the Lagos channel. The chart titled *Lagos River* had a scale of 1: 18, 160 and was based on a survey carried out in 1851 by Mr Earl (British Library, 2019). By the early 1850s, a pictorial representation of Yorùbáland had evolved.

Daniel May's visit to Yorùbáland in 1858 was not a personal decision but a task required of him as a member of the Niger Expedition of 1857 (Baikie and May, 1857). This expedition was part of and a continuation of the Niger Expeditions, which began in the late eighteenth century. From 1788 when Mungo Park began his exploration to 1830 when the Lander Brothers' 'discovered' the Niger Delta, the Niger River hinterland had been an area of interest to European geographers and merchants (Bovill, 1968; Withers, 2004). Originally aimed to explore the unknown lands around the Niger River basin, the expeditions were later concerned with the opening up of communication with the hinterland for commercial, philanthropic and religious purposes from the Atlantic seacoast. Thus, the British Government sent out the Niger Expedition of 1841 with the twin objectives of philanthropy and 'legitimate commerce', but it failed (Ifemesia, 1962; Lambert, 2007). However, the British merchant, McGregor Laird, was convinced that the Niger River hinterland could still yield commercial success. Consequently, he financed new expeditions starting from 1854 with government support.

Dr William B. Baikie, a surgeon and naturalist, was part of the 1854 expedition onboard the steam-ship 'Pleiad' and was part of the second expedition in 1857 when he eventually assumed the command of the expedition. Thus, D.J. May's exploration of Yorùbáland was "in pursuance of Dr Baikie's instruction…dated 23rd May, 1858….to explore some of the less known districts in the east of the great Yoruba country" (May,

1860, 212). Indeed, Baikie himself had written to the British Secretary of Foreign Affairs in 1857 that he journeyed “through the Yoruba country and Lagos”, but it was a journey across western Yorùbáland (Baikie and May, 1857, 83). Although earlier Niger Expeditions under Commander Clapperton, RN, the Lander brothers as well as Christian missionaries, such as David Hinderer and Thomas Bowen, had travelled and mapped northwestern and central Yorùbáland respectively (Ogundiwin, 2021), the eastern part was still largely unknown to Europeans.

The 1857 Niger expedition had further objectives beyond mere geographical discoveries of unknown lands to Europeans; it was primarily concerned with opening trade with the Niger hinterland (Evans, 1929; Ifemesia, 1962). Hence, D.J. May sought to map eastern Yorùbáland accompanied by two Yorùbá guides. However, he could not fulfil this specific objective of his journey carried out in 1858. That specific objective was reaching the confluence of the Rivers Niger and Benue from eastern Yorùbáland. However, owing to the armed struggles of Yorùbá kingdoms along the route, he did not achieve this objective.

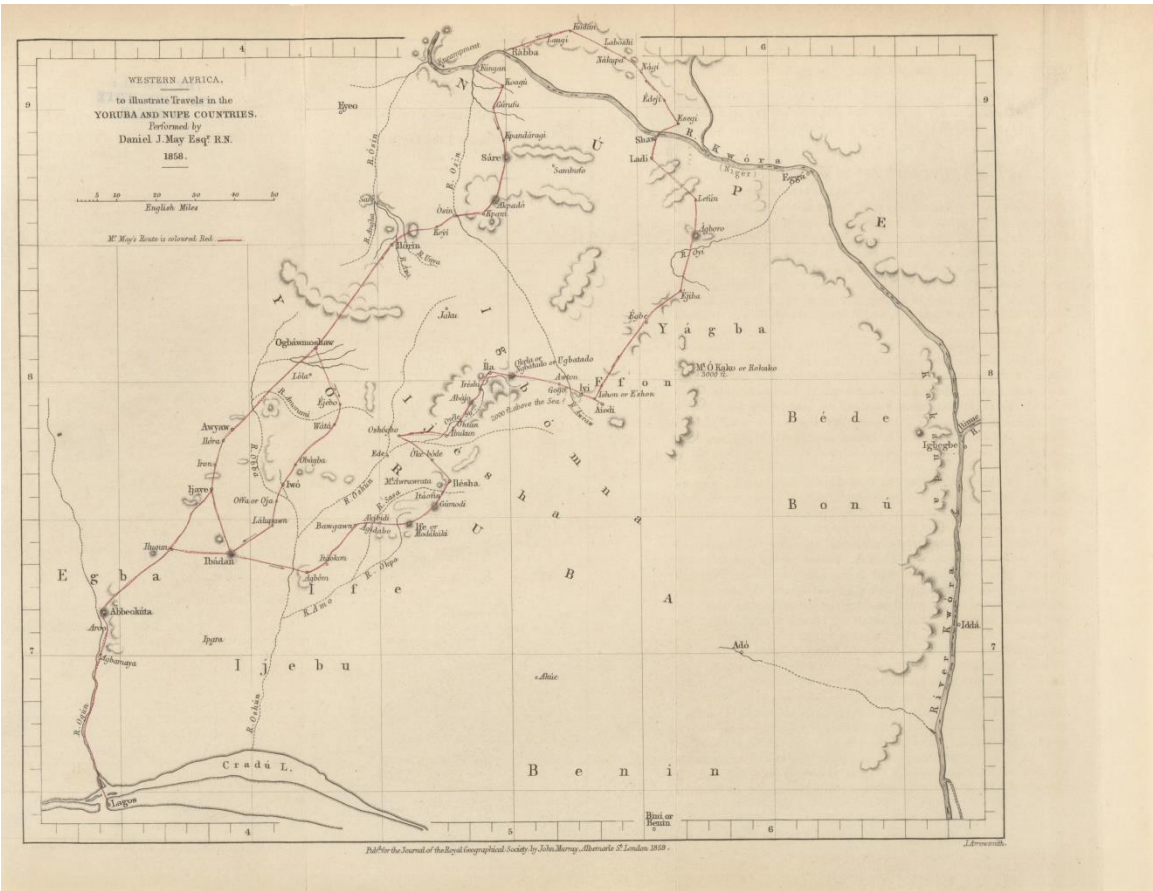


Fig.4.1 Western Africa: To Illustrate Travels in the Yoruba and Nupe Countries. Source: Perry-Castaneda Library Map Collection, University of Texas (London: Journal of the Royal Geographical Society, 1860)

The vertical perspective in Fig.4.1 creates a naturalness of the Yorùbá country. For example, the map frame of inner and outer neat lines, as well as the lines of the graticules, produced as if, a whole view of the landscape. The geometric patterns on the map face also contributed a sense of order to the depicted landscape (Kennedy et al, 2016). For instance, there was a southwest-northeast direction of the landscape. Therefore, it drew attention to the central part of the country and the hachure sustaining the readers' gaze. In addition, the travel route represented by a chain-line superimposed with a thin red line and the chain-line depicting the rivers suggested activity across the landscape. The inclusion of marginal information created a logic of credibility. As documented, there was inclusion of the names of the society, the publisher of the RGS Journal and the mapmaker, 'J. Arrowsmith' (Herbert, 1983). Besides, the varied

typography adds to the effect of the vertical view in organising space on the map. The depicted landscape evokes the physical and cultural geography of Yorùbáland.

On this geographic landscape are depicted natural and cultural features. The natural feature includes rivers, hilly areas, coastline and the lagoon. On the depicted landscape was a two-river system, draining northward and southward. For instance, River Osin flows northwards into the Niger River, and the Ogun River flowed southwards into the lagoon. In the middle of the Yorùbá landscape was hilly terrain that suggests watersheds and sources of the rivers. This topographic portrayal was clusters of hills rather than a single feature in the previous maps of Lander in 1830 and Arrowsmith in 1834. Likewise, there was a brief portrayal of the Atlantic coastline, but the Lagoon, labelled as Cradu (Ikorodu) was more prominent.

The cultural features depicted included the travel route, sub-ethnic territories, towns and travel route of the British explorer. The travel route of the explorer reveals his movement between the western and eastern parts of the Yorùbá country. Again, the depicted landscape suggested the locations of several sub-ethnic territories. As indicated it suggested the territories of Egba, Ijebu, Ijesa, Ife, Igbomina, Efon (Ekiti), Yagba and Oyo-Yorùbás. In addition, the settlements on the landscape consist of large towns, small towns and villages. Examples of the large towns depicted include Abeokuta, Ibadan, Ogbomoso, Ilorin, Ife and Ilesa. Although graphically indistinguishable from small towns, the traveller and the mapmaker decided to include several villages.

The cartographic gaze reflected objectification (Crampton, 2010; Sibley, 1995). This was evident in the urban-hinterland relations exemplified in the depicted satellite farm villages. I argue that there was a transformation of this indigenous spatial knowledge into map form through this cultural encounter. The gaze treated this cultural practice as an economic object, unaware of its multidimensional purpose. The inscription of the farm village visually empowered economic exploitation, commodifying this agrarian feature of the landscape. Therefore, this visualisation was part of a political-economic discourse, which recognised the importance of the farm village, the trade route and the river system to merchant capitalism (Cain and Hopkins, 1986).

Farm-villages reflected indigenous spatial knowledge acquired by the traveller through the cultural encounter with indigenous informants. For instance, there was the

depiction of Obagba, a farm village northeast of Iwo town on the centre of the map. D.J. May observed, "the next day's journey was to a farmstead, Obagba", which was "a farm to Iwo" (May, 1860, 212-213). Similarly, he showed that Lalupon was a farming settlement on the outskirt of the town of Ibadan. He observed that on "Leaving Lalupawn…, and travelling the whole way through cultivated ground, I reached Ibadan about half-past 10. Between Iwo and Ibadan palm-trees are particularly numerous" (May, 1860, 213). An important article of European export trade at the Lagos seaport was palm oil (Ajayi, 1965; Webster and Boahen, 1980).

This objectifying cartographic gaze aided the pursuit of 'legitimate commerce' by the British merchant community who were interested in geographic information on trade routes and transportation. For example, the object of D.J. May's exploration was to 'discover' a new trade route connecting Lagos and Western Yorùbáland with the confluence of the Niger River, at Lokoja. Although the Ogun River had been the focus of trade with the Lagos seaport since the 1840s, the British traders were interested in employing Osun River for the same commercial purpose. D.J. May (1860, 214) wrote:

> After passing through the cultivated ground which extends for many miles around Ibadan, and then for some miles through forests …we arrived at the river Oshun. This point is 5 or 6 miles below its confluence with the Obba, and here I found it a considerable river about 100 yards broad….it may prove a practicable and speedier medium of communication with Ibadan and East Yoruba and the sea, during a short time of the year, than that by the Ogun and Abbeokuta.

The accessibility of the supposed commercial opportunities of Yorùbá agriculture drew attention to concerns for transportation. Hence, depicted rivers embedded this concern with commercial access to sources of agrarian production. By portraying the geographical landscape as material opportunities, the objectifying cartographic gaze depicted the farm villages as part of the commercial evidence. This gaze served the personal interest of British gentlemen-capitalism (Cain and Hopkins, 1986) in Britain, and the European merchant communities on the Niger River settlements and Lagos. This cultural encounter with indigenous socio-spatial relations was no mere geographical description in the travel account, but an affirmation of the potentials of commercial opportunities in agriculture (May, 1860, 222). It was a geo-cartographic space equally projecting an economic

landscape – objectification of the topographic features as commercial potentials. Hence, this map was also a rhetorical image of capitalist modernity.

Alvan Millson in Yorùbáland, 1890

Williams Shawe drew Fig.4.2 illustrating Alvan Millson's article in the RGS Journal in 1891. William Shawe, the cartographer, was initially the managing draughtsman to Messrs. George Phillip and Sons. Later he was a partner in the map-making firm of Turner and Shawe, which became 'cartographers' to RGS from about January 1890 (Herbert, 1983, 91). Probably Shawe did not produce any previous maps of the Yorùbá country, but previous maps of Yorùbá country served as a template for compiling Fig.4.2. However, Alvan Millson possibly made sketch maps of the areas he visited as part of his field notes (Millson, 1891, 584); thus, this sketch information, possibly reflected in the final map made by Shawe. Alvan Millson, the Assistant Colonial Secretary of Lagos Crown Colony, undertook the journey to the Yorùbá hinterland in 1890. The simple intention for map-making was geographical knowledge of unknown lands (Ogundiwin, 2021). However, there were broader aspects of this cartographic agency. In broader terms, the map visualised geographic information of economic opportunities gathered from a political mission into the interior of Yorùbáland.

The visual imagining of space in this map embeds administrative, educative, scientific and commercial discourses. Fig.4.2, as aforementioned, began possibly, as a sketch map used to illustrate the findings of the political mission. For example, Alvan Millson prepared several official reports between 1890 and 1891, which probably included the original sketch map. In addition, Fig.4.2 formed part of the public geographical education about Yorùbáland. For instance, Alvan Millson gave a lecture on the Yorùbá country at the evening meeting of the RGS on June 29th 1891, where there was probably a display of the map before its publication in the RGS Journal (Millson, 1891, 577). Again, the visual imagination of the landscape on the map was part of the scientific discourse on agriculture and botany. To illustrate, the officials of the Royal Botanical Gardens reported, "The botanical collections made by Mr. Millson in the Yoruba country, were transmitted to Kew and carefully examined" (RBG, 1891, 206).

In addition, the map was part of the visualising discourse of agricultural opportunities of Yorùbáland to entice the British business class. For example, the colonial governor, Alfred Moloney, opined in discussing Millson's findings that "The Yoruba country…. requires… [the] support of the commercial community brought to bear on its development". Then he drew the attention of the merchants to Yorùbáland as the "habitat may be viewed as situate between 6^0 40' and 8^0 north latitude and 3' 40'-5^0 east longitude" (RBG, 1891, 207). On one hand, this map educated colonial officials as they sought to annex the Yorùbá hinterland into the formal empire of Britain. On the other hand, the map reflected a British economic construction of Yorùbá territories for its audience. Therefore, this process of map use and re-use provided the RGS and the reading public, particularly British merchants, a cognitive comprehension of political-economic opportunities in West-Central Africa.

The production of this map was preceded by several maps and mapping expeditions that contributed to the geographical knowledge of Yorùbáland. These cartographic representations between 1861 and 1891 include mapping of coastal areas and the Yorùbá hinterland. As a maritime-based colony, the hydrological and geo-cartographic mapping of the Lagos port and its surrounding was important to the Lagos colonial government (Lucas, 1894; McIntyre, 1963). In 1861, an Admiralty chart of the Lagos channel depicted the port. Titled *Lagos River*, the chart had a scale of 1: 14, 800 and Lieutenant J.H. Glover RN, who later became a colonial administrator of Lagos (Glover, 1895), carried out the survey (British Library, 2019).

In addition, the British Admiralty produced another chart of *Inland Water Communication* of Lagos in 1863 (Glover, 1895). Glover carried out this survey between Lagos, Badagry, Porto Novo and Epe along the Atlantic coastline. Likewise, in 1886, W. C. Speeding, under the personal direction of C.A. Moloney, the colonial governor, carried out a hydrological survey of the Lagos colony (British Library, 2019). Edward Stanford Geographical Establishment published the map titled "*A Sketch Survey of the Inland Water Communications in the Colony of Lagos*". Stanford was a British commercial map-making firm that also served the cartographic needs of the colonial government (Herbert, 1983). Similarly, in 1889 the colonial secretary, Alvan Millson, produced a sketch survey

of the inland water communication in the colony of Lagos. These hydrological maps facilitated the safety of merchant shipping.

There were mapping exercises during several events in the hinterland that yielded several cartographic maps. For instance, the War Office instructions of Captain A. T. Jones of the Second West India Regiment (WIR) in May 1861 include the gathering of spatial information while on a diplomatic mission to Abeokuta and Ibadan (Ajayi and Smith, 1971). The British War Office and Lagos colonial administration knew very little of the Yorùbá interior during this period. In addition, Captain J. Glover, RN, in the late 1860s, eagerly sought to create a new trade route to Lagos through the Leke - Ode Ondo - Oke Igbo route in Eastern Yorùbáland. Hence, the naval officer and colonial governor/administrator produced sketch maps of towns and villages along this trade route in 1872 (Glover, 1895; McIntyre, 1963). For example, he was "continually employing natives to collect information concerning the surrounding country" and "the information collected was sufficient to enable maps to be made locating various places in this unknown district" (Glover, 1895, 120-121). Besides, some Africans were also involved in the map production of the colony. In 1885, W.T.G. Lawson, a West African surveyor, produced the *Sketch Map of the Town of Lagos* (1:3,240) (Bigon, 2009, 445)

Western-educated Yorùbá peace negotiators and some chieftains of the Yorùbá kingdoms during the 1880s invited the British colonial government as a mediator to end the intra-ethnic Kiriji war (1878-1886) (Atanda, 1980; Webster and Boahen, 1980). This offered opportunities for increasing geographical knowledge production of the Yorùbá hinterland. Hence, the British diplomatic entourage of Messrs. Higgins, Queens Advocate, and Messrs. Millson, Colonial Secretary, who were to oversee the signing of the peace treaty (Johnson, 1921) had a mapping mission attached to their entourage. Therefore, the Lagos Harbourmaster, W. C. Speeding, conducted the first route survey through Yorùbáland in 1886. In 1888, the Colonial Office published this route survey as the *Sketch Map of Oyo Country*. Earlier in 1886, Mr Speeding has surveyed Mahin, Ogbo, and Jakiri Countries. The colonial office in London published the map titled a *Sketch Survey*.

These maps depicted the Yorùbá hinterland simultaneously for its geographical knowledge and its commercial value. Earlier in July 1861, the British Government

annexed the Island of Lagos, the entry point to the Yorùbá hinterland (Burns, 1929). Although, a seacoast island the British colony rapidly rose in importance due to booming trade with Yorùbá hinterland. Indeed, there was an increasing interest in the territory, population, and economic resources of Yorùbáland by the British Government, either in England or in the British Colony of Sierra Leone. Hence, geographical knowledge of Yorùbáland primarily served economic interest of European merchants. For example, the aforementioned hydrological charts of Lagos served the purposes of merchant shipping in Lagos harbour. In addition, the maps produced, based on the geographical knowledge of Yorùbá informants, during the governorship of Captain Glover (McIntyre, 1963) aided the opening up of alternative trade routes. However, the power politics of Yorùbá kingdoms of the 1860s-1880s led to consistent closure of the trade roads into the interior (Crowder, 1966). "Among the consequences was the marked and immediate diminution of British trade, which naturally caused anxiety in Lancashire, where there was a large and growing trade with Lagos" (Glover, 1895, 134). Hence, "the Governor's policy was to open up communication with the [Oyo] Yoruba country" (*Ibid*, 134). This opening up of the hinterland for commerce eventually transformed these cultural encounters into territorial annexation.

In addition, the maps made by Mr Speeding and published by the Colonial Office were crucial in the political-economic struggle that drove the Scramble for Africa. For example, Governor Alfred Moloney enclosed the *Sketch Map of Yoruba Country* in his 1888 dispatch of the Treaty with the Alaafin of Oyo to Lord Knutsford of the Colonial Office (Johnson, 1921). Meanwhile, the French were active in neighbouring coastal Dahomey and began to make incursions into Yorùbáland starting from the early 1880s. For instance, the Franco-Egba Yorùbá Treaty of 1884 sought to bring Egbaland into the sphere of French rule (Crowder, 1966). Similarly, the German became active on the Eastern seacoast of Yorùbáland, securing a treaty over the Mahin area in 1884 (Evans, 1929). This situation was part of incidents that led to the Berlin Conference to resolve the bickering amongst European imperialists. Hence, as a means of forestalling further rival European imperialist incursions, the Lagos colonial government took more interest in the geographical knowledge-making of the Yorùbá interior. As other state maps produced at

that time, Mr Speeding's Sketch Survey of Eastern Yorùbáland in 1886 was crucial to the territorial politics of keeping the Yorùbá market for Britain.

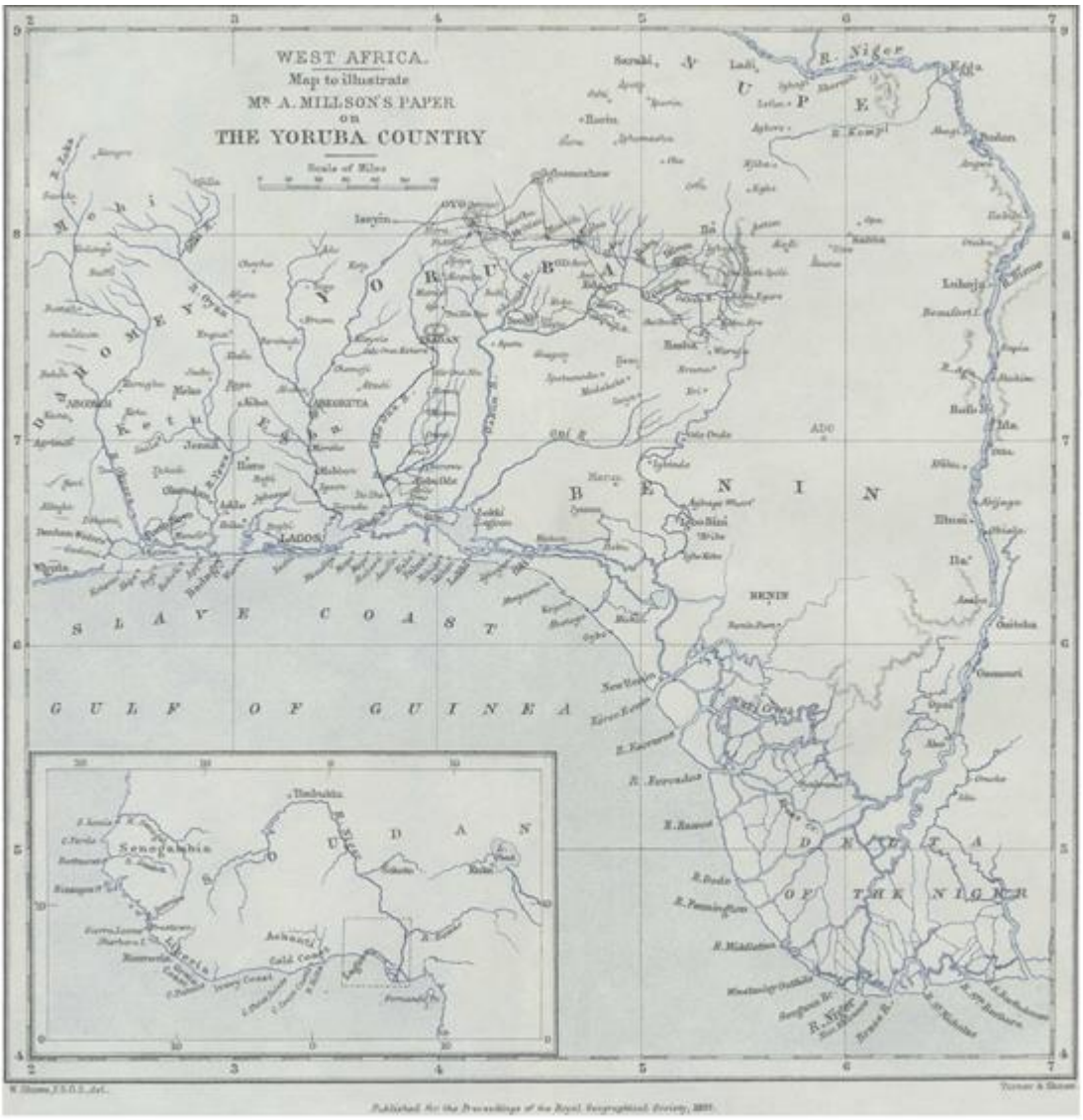


Fig.4.2. Map To Illustrate Mr. A. Millson's Paper on The Yoruba Country, 1891. Source: Royal Geographical Society (London: Journal of the Royal Geographical Society, 1891)

Fig.4.2 framed a vertical perspective of Yorùbáland with a proportional outlook for the landscape. For example, placed within the main map face was an inset map of West Africa, which suggested comparing the relative extent of the landscapes. In addition, a one-degree interval spherical coordinate geometrically framed the locational information on the map. These scientific devices of Inset map and grids evoked a sense of

objectivity. The geometric representation on the map face created a sense of ordered landscape. For instance, the map symbolisation drew attention to geometric shapes and lines representing rivers, coastline, towns, town-walls and the travel routes of the colonial political officer. These travel routes visually materialise the political mission on the map face. Nonetheless, the graphic impression of the blue and grey background of this symbolisation created a sense of the physical geography of Yorùbáland.

The geographic landscape portrayed natural features, human features and graphic information on the political mission. The most prominent natural feature depicted were the rivers, unlike the hilly terrain that was less prominent. On the depicted landscape within the Yorùbá country were six river systems. Fig.4.2, in contrast to D. J. May's 1860 map, prominently showed the southward flowing rivers. Examples include the Opara (Okpara), Ogun, Ona, Osun, Oni, and the unnamed (Osse) river to the east. In addition, there was only a portrayal of the hilly terrain of Eastern Yorùbáland. The main cultural features depicted were towns and villages. These depicted major towns were associated with a cultural feature of Yorùbá urbanism – town walls. Interestingly, the map portrayed the walls as rings around the towns. This informed the map readers how many walls each town had based on the number of rings encircling the towns. As illustrated, Ibadan, Oyo, Ogbomoso Iwo, and Ede had two town walls each while Ilesa had one wall. On the landscape, the travel route of the political mission was across Yorùbáland from Ito-Ike village beside the Odo-Ona River in Ijebu territory to Ibadan, Oyo and Ogbomoso. Likewise, the route traversed toward eastern Yorùbáland in Ilesa before turning back towards the starting point at Ijebu.

The objectifying cartographic gaze of the Yorùbá agricultural landscape was a visual dimension of an intensifying spatial discourse in the late 1890s. This political-economic discourse intensified the re-presentation of the farm village practice and the crops produced in them as opportunities for economic exploitation. The incorporated indigenous spatial knowledge symbolises a visual aiding of the capitalist economy. One of the key spatial practices of Yorùbá urbanism tied to its sustenance was the neighbouring agricultural landscape of farm villages. Outside the town-walls, depicted on the map, are the farm villages (Burton, 1863, 67). As Millson in 1891 observed that:

Some three miles to the north of Odo Ona Kekere, from the crest of a rising in the undulating land, the great city of Ibadan – the London of Negroland – comes full in view, extending for over six miles from east to west, and for more than three from north to south. Surrounded by its farming villages, 163 in number, Ibadan counts over 200,000 souls, while within the walls of the city itself at least 120,000 people are gathered. Its sea of brown roofs covers an area of nearly 16 square miles, and the ditches and walls of hardened clay, which surround it, are more than 18 miles in circumference (RGS, 1891; 583).

Therefore, the map readers of the RGS Journal will not fail to associate the implicit image of this agricultural landscape with the wider spatial discourse of future commercial development of the Yorùbá country. At the June 1891 RGS lecture, there were remarks concerning the implementation of this colonial economic imaginary. For example, Millson in the lecture referred to the work of the Government Botanical Centre, established in 1887 inside the Lagos Colony (Moloney, 1890, 614). He drew the attention of his audience, scholars, colonial officials and merchants, to abundant economic opportunities;

The gravel ridges, which alternate with the richer lands, were covered with shea-butter trees which yield a valuable vegetable oil, the water-courses were shaded by gum-bearing acacias, ogea-gum trees and camwood trees, while the forest lands of Ijebu and Ijesha contain numerous valuable timber trees. In addition to the above products of the country there are many minor articles of commerce, such as benniseed, ground nuts, and dyes, while the most important consideration of all, in my opinion, is the *future development* of good qualities of cotton, coffee, cacao, and other valuable plants, which are rapidly being introduced among the natives (Millson, 1891, 586, emphasis added).

Besides, the river system continued to be a means of commercial accessibility related to the economic cartographic gaze. The economic ideology of British capitalism recognised the importance of river transportation in exploiting these agricultural opportunities. For example, the Osun River remains, as D.J. May (1860) noted earlier, the obvious choice of the Lagos colonial administration and the European merchant class for the transportation development. This was evident in the portrayal of the river systems in Fig.4.2. As indicated, the Osun River takes precedence over the other rivers by its portrayal with the double linear symbol that emphasises its importance. As Millson (1891; 580) opined: "The Oshun river, for instance, which carries, even in the dry season, more water than the

Thames at Kingston, would enable launches and lighters to penetrate to the Ibadan farms in the heart of the most populous and promising commercial tribe in West Africa". Thus, the Osun River stood out in the cartographic space even though it was neither the largest nor the longest river amongst the rivers depicted.

Consequently, the objectifying cartographic gaze served the interest of economic exploitation. At this stage of transforming the informal imperial ethic into formal colonialism (Clayton, 2003), both the 'official mind' and 'unofficial mind' recognised that a Yorùbá town together with its satellite farm villages constitutes the basic structure of indigenous 'agricultural landscape'. For instance, Alvan Millson (1891; 585) observed, "the still larger city of Ibadan, and the innumerable farm villages which are scattered over the central portion of Yoruba…. [thus] it is easy to imagine how great must be the agricultural activity of the people and how vast the proportionate area of land under cultivation". Colonial agricultural imaginary sought to transform the agricultural landscape by projecting an economic Otherness unto the indigenous agrarian space to serve capitalist opportunities. Therefore, this cartographic production of space was also an exercise in aiding colonial economic interest.

Captain Frederick Lugard in Northern Yorùbáland, 1894-1895

Unlike the previous maps, illustrating papers read at the RGS meeting, the map illustrating Captain Frederick D. Lugard's paper on the Borgu expedition in 1894-1895 does not have the names of the cartographer on it (See Fig.4.3 and Fig. 4.4). Edward Stanford, a 'Geographer to Her Majesty' (Herbert, 1983, 92), prepared the maps for publication in the Geographical Journal of the RGS during the 1890s. During this period, Stanford worked with Ernest G. Ravenstein, who made several maps illustrating articles of the RGS Journals. Ravenstein was a cartographer and geographer at the topographical depot in Spring Gardens, London, and later worked for some map firms, Petermann in the 1850s and George Phillips in the 1880s. Hence, it can be suggested that Ravenstein drafted the final map of Captain Lugard's Borgu mission, published in September 1895. Nevertheless, the originating source of this final map was the leader of the expedition. Captain Lugard, throughout the journey, was involved in map-making and astronomical observations (Lugard, 1895; 206). Indeed, noted beneath the map title was "places, the

position of which was astronomically fixed by Captain Lugard, are underlined thus; Kishi".

There was an intense geographical exploration of the Yorùbá hinterland during the 1890s. Indeed, geographical knowledge was a foremost device in the colonial project. Imperialism and mapmaking shared a common interest in their "passion for territory" (Zou and Kumar, 2011, 144). During this period, explorers travelling across the Yorùbá country produced several maps. In 1891, a map titled "*Routes in the Colony of Lagos*" illustrated the travels of Dr J.W. Rowland. In 1892, the British War Office published the *Chart of Ogun River* at a scale of 1: 126,720 (British Library, 2019). In addition, geographical knowledge production accompanied many diplomatic missions seeking treaties with the kingdoms of the Yorùbá hinterland. For instance, A.G. Fowler produced the "*Map of Route taken by Sir G. Carter's Expedition from Lagos to Ilorin*". Published in 1894, the map had a scale of 1: 506,880, or 1 inch to 8 miles (*Ibid*, 2019). These small-scale maps were a key part of documentary evidence in the territorial contest as European politicians and diplomats examined, discussed, protested and acknowledged these representations in Europe in the 1890s.

In the early 1890s, as aforementioned, the French government began an aggressive empire expansion across Western Sudan through military conquest and treaty-making expeditions to West African territories (Crowder, 1966). Meanwhile, the area between Gonja, north of Asante-land, stretching towards Borgu and northwestern Yorùbáland was still an 'unclaimed hinterland' to the European imperialists (Evans, 1929; Ukpabi, 1971, 448). However, French troops under Colonel Dodds in 1892-1893 conquered the Dahomey Kingdom. This conquest encouraged the French to send a treaty-making expedition into Borgu. Unlike the aggressive territorial expansion of the French, the British government had favoured, in the words of Lord Salisbury, "the policy of advance by commercial enterprise" (Cited in Ukpabi, 1971, 450). However, a shift in this British policy commenced when the British government sought to out-smart the French treaty-making party of Captain Decour in 1894 by dispatching Captain Lugard to Nikki in Borgu to forestall French territorial intentions. While the French Army officer led his troops from Dahomey, Lugard passing through the Niger River approached Borgu from northwestern Yorùbáland.

Like Alvan Millson, Lugard's expedition was essentially a political mission but with a strong element of international relations and a commercial dimension to it. For Nikki, the capital of Borgu was at the same period not only the object of two European expeditions from Britain and France but also from Germany (Lugard, 1895, 212; Evans, 1929). In addition, other European firms – French and Germans – were trade competitors of the Royal Niger Company (RNC), which sponsored the Lugard expedition, around the Niger River hinterland. Thus, the purpose of this map was primarily to portray Lugard's journey, one of the events of the 'Scramble for Africa' in West Central Africa. Earlier in 1893, the spreading formal empire of Great Britain in Africa had incorporated the greater part of Yorùbá hinterland. *Pax Britannia* was also a prelude to 'free trade' and commercial prosperity. Therefore, advancing Pax Britannia in northern Yorùbáland through a treaty with Saki and Kisi, Lugard incorporated the northern frontier of Yorùbáland firmly into the world system of British colonial capitalism.

Fig 4.3 and Fig. 4.4 are detailed segments of Northern Yorùbáland. Several devices encoded this objective view of the landscape. For example, there are three forms of map scale placed above one another; a verbal scale of 20 miles to 1 inch, a bar scale and a representative fraction of 1:1,267,200. In addition, the inset map of West Africa depicted the region of interest, Borgu and Northwestern Yorùbáland, in its proportional relation to the sub-continent. Geometric representations created a varied sense of ordering on the depicted landscape. For instance, the graphic construction drew attention to the line-of-march, but it also elicits an emptiness. Indeed, the map symbolisation highlighted this sense of emptiness by the contrast of colours; the sharpness of the thick red lines of the travel route and the underline of place names in contrast to the brightness of the yellow coloured background. However, the varied linear symbolisation of the rivers together with the pictorial character of the hachure, representing elevations, broke the monotony of this blankness. The empty landscape focused the viewer's attention on the line-of-march of the expedition, but the blankness resulted from a lack of geographical knowledge of northern Yorùbáland.

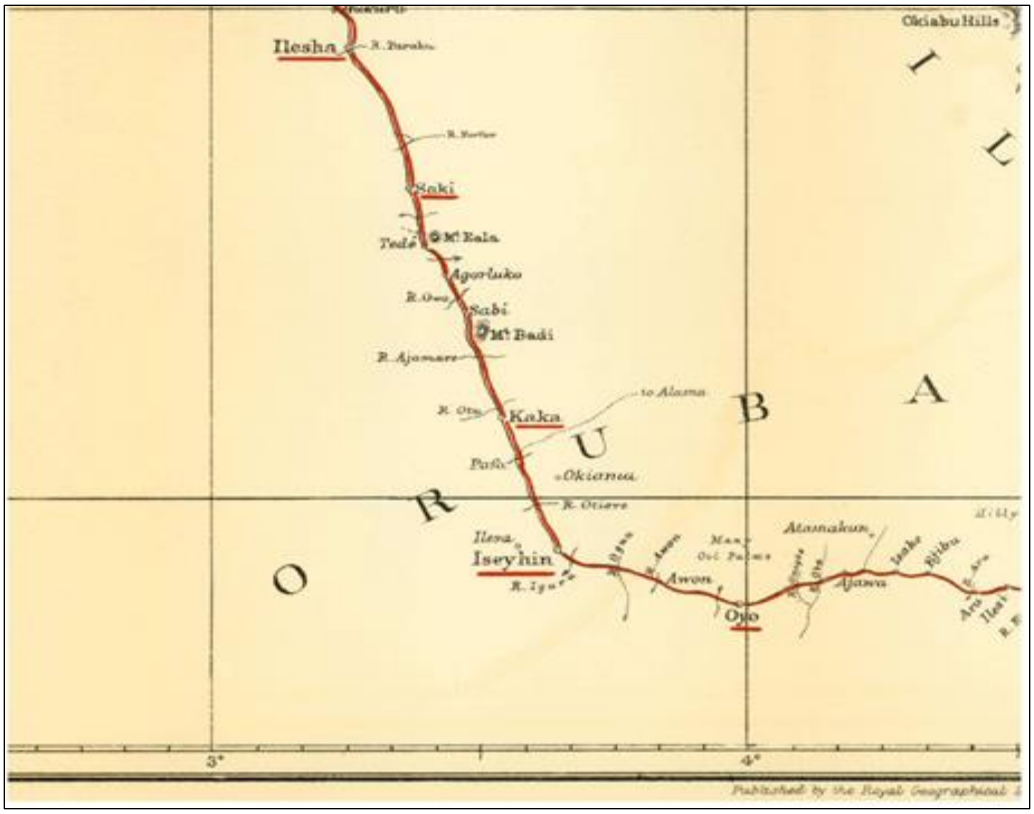


Fig.4.3 Detail of Northern Yorùbáland, 1895; Map To Illustrate Captain Lugard's Paper on the Borgu Expedition 1894-1895, Scale: 1:1,267,200 Source: Royal Geographical Society (London: Geographical Journal, Royal Geographical Society, 1895)

The geographic landscape depicted natural and cultural features encountered along the expedition's line-of-march. The two natural features portrayed are relief and rivers. The relief along the route consisted mainly of hills. For example, there was Mountain Eala, west of the town of Tede on the road from Saki in northwestern Yorùbáland. On the landscape near Eruku and Ikirun, are two hilly terrains. Fig.4.4 visualises the mountain near Ikirun. This mountain possibly served as a landmark during the 1893 boundary delimitation between Yorùbáland Protectorate, attached to Lagos Colony, and Ilorin, a Yorùbá territory, under Fulani colonisers. Meanwhile, the depicted landscape gave suggestive presence and possible course of rivers. For instance, there was a line depicting River Ogun between Iseyin and Oyo towns. The cultural features of the landscape were mainly towns and villages. Large towns on the line-of-march like Saki, Okaka, Iseyin, Oyo, Ikirun, and Aiye were all underlined. Thus, Captain Lugard stopped at almost all major towns on his route to take astronomical observations, which contributed to the

locational precision of the geographic features of the territory. This was one of the instances of bringing into the orbit of the abstract, conceived space of British colonial cartographic power, the Protectorate of Yorùbáland, declared in 1893.

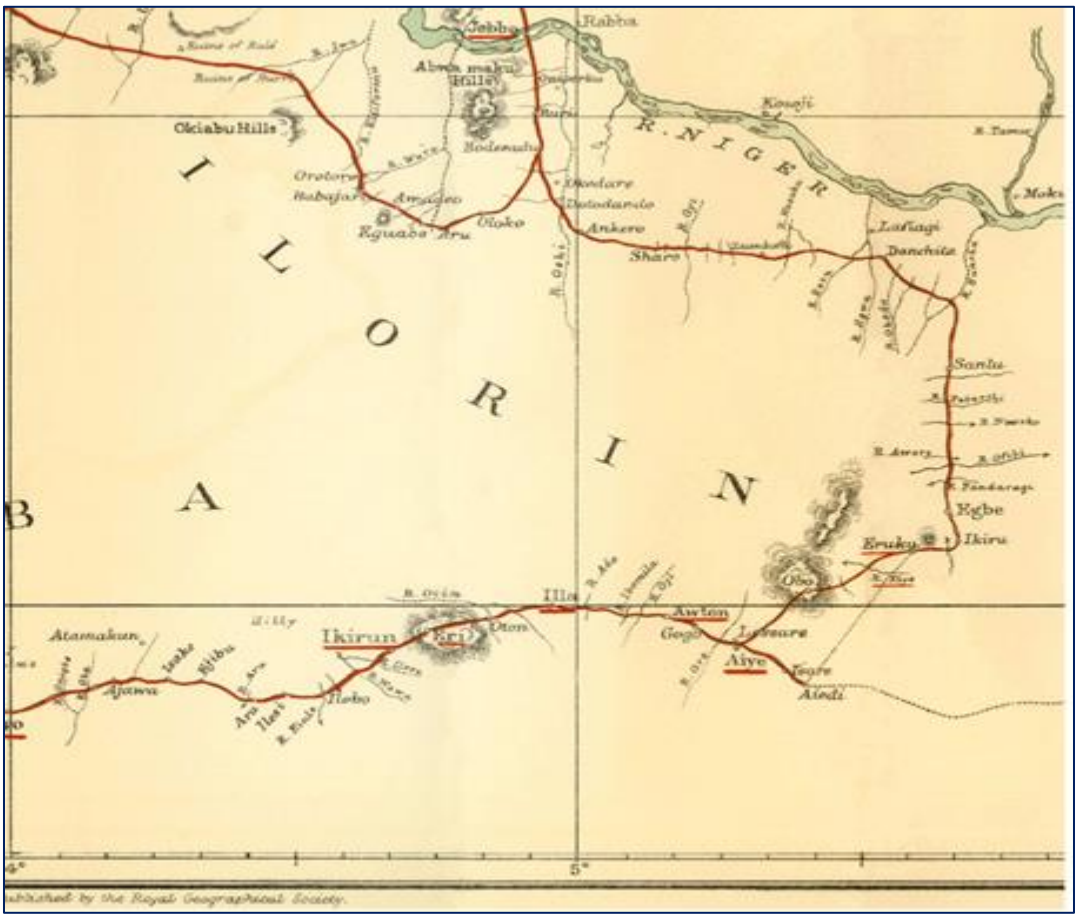


Fig.4.4 Detail of Northern Yorùbáland, 1895; Map To Illustrate Captain Lugard's Paper on the Borgu Expedition 1894-1895. Source: Geographical Journal (London: Royal Geographical Society, 1895)

Regardless of its scientific character, the map portrayed an economic landscape evident in the trade routes and the agricultural produce of Northwestern Yorùbáland. The commercial undertone of 'gentleman capitalism' was ever-present. Crops and trade routes were identities on the indigenous agrarian landscape deployed as opportunities for capitalist modernity. While the depiction of oil palm on the map was explicit, there was an implicit reference to other crops associated with the trade roads. As aforementioned, signified on the map were overland trade routes. For instance, the label '*to Alama*',

(Fig.4.3) between Okaka town (Kaka) and north of the town of Iseyin (Iseyhin), was an ancient trade route associated with the trading in raw cotton and cotton goods to the southern part of the Yorùbá country. Therefore, the leader of the geopolitical expedition took note of its significance in the capitalist-funded mission. These commercial opportunities of cotton, expressed in the cartographic space, reflected in the words of Alvan Millson (1891; 586) four years earlier:

> With regard to the present quality of the cotton which is grown in such vast quantities in Yoruba, and can be shipped for about 3d. a pound, it is declared by those who are most capable of judging, that, although the supply is intermittent and the sample not over clean, it is very well thought of in the Liverpool market, and commands a paying price, equal to that of Louisiana and superior, to that of India.

Again, the label '*Many Oil Palms*', written on the map face, north of Oyo town, revealed a visual message of commercial opportunities in an 'economic crop' (See Fig.4.3). I argue that this map was a continued visual aid to the colonial economic ideology of economic plants. On a map, typography serves as a functional symbol (Dent et al, 2009; Allard, 2009). This contention does accurately apply to this late nineteenth-century map. This typographic indication of oil palm did not emerge at the instances of natural history or plant anatomy but on the inspiration of capitalist prospects of profit-making from the agricultural produce exported through the Lagos seaport. Although, a political mission, as aforementioned, the RNC, a capitalist enterprise, funded the expedition. Therefore, the depicted landscape accommodated and projected knowledges that gave prospects to the capitalist imaginary. For instance, in Britain, the Kew Bulletin (1892, 200) noted that:

> Lagos furnishes the purest oil… Palm oil is eaten as butter by the natives, and used for anointing their bodies. Here it is used in the manufacture of soap and candles, and in South Wales in the preparation of tin plates. Its non-drying qualities render it valuable as a preservative of the surface of the heated iron sheet from oxidation until the moment of dipping into the bath of melted tin, the sheets being rapidly transferred to that from the hot oil bath, which consists almost entirely of palm oil.

Trading in palm oil had a direct benefit for the British manufacturing industries. Therefore, the economic potential of the agricultural landscape was evident in the spatial

discourses of scientists, merchants and government officials. For instance, Lugard wanted the suppression of European liquor trade, "In return for the *vast export of palm oil*, together with rubber, capsicums, shea-butter, indigo and other produce", that was evidenced on the Yorùbá agrarian landscape while he thought "the Yoruba *ought*…to be in possession of abundance of cloth and useful European articles…" (Lugard, 1895, 224, emphasis added). At that time, Alvan Millson assumed that 25 per cent of the Yorùbá people were involved in their native clothing industry (Millson, 1891, 586-587), but colonial merchants were thoughtful of how to supplant the local trade with European textiles.

Nonetheless, the palm oil trade was much more important considering the global trade competition with the rise of fossil fuels in the late nineteenth century. Before Captain Lugard read the paper, Sir George T. Goldie, the Chairman of the Lecture and Vice President of the RGS had admonished the audience to cherish "the value of impressions he has brought back" from the "western quarter of the continent" (Lugard, 1895; 225). Those impressions took a concrete form in Fig.4.3 and Fig. 4.4 as an illustrative device. Interestingly, Goldie, himself founded the RNC in 1886 (Crowder, 1966, 185). Hence, this cartographic production of space embedded the ideological intentions of the British economic interest.

4.2.2. Early Colonial Period in Yorùbáland

Portraying space rather than the depiction of place became the concern of state cartography at the commencement of the colonial period (Harley, 1988b). Thus, I argue that the pursuit of 'objective, scientific image' in colonial cartography ushered in another dimension to cartographic silence. Scientific cartography gradually displaced the representation of indigenous agrarian space with the newly emerging capitalist economic space. A standardising character was evident in the partially visible and invisibility of the rural landscape (Driver, 2000; 2012). For example, the visual representation of Yorùbáland in the early British colonial reports between 1907 and 1914 reflected these standardising features. Besides, small-scale administrative maps inaugurated this particular state gazing of the landscape. Consequently, the geographical othering of rurality became a standardised view of space.

Western Province of the Colony of Southern Nigeria, 1907

In 1908, a map of Southern Nigeria illustrated the 1907 Colonial Report published that year. On the left-hand side of this colonial map was the Western Province (Fig.4.5). The Ordnance Survey in Southampton, England, published the map. This map accompanied the colonial report, the foremost authoritative discourse of the colonial project. The report served as a source of information to several segments of the colonial society. For example, the administrative class in the colony not only took the report seriously but also sought after the map as a separate entity. Several Administrative Officers relied on this map to imagine visually the colonial space. So, they had this map displayed in their offices. The colonial secretary, F.S. James, who prepared the report in September 1908, wrote that:

> A map of Southern Nigeria, together with a chart showing the expansion of Southern Nigeria, from 1900 to 1907, and a statement of the importation of spirits during the last five years, is included with this report. I also attach a statement of the economic investigations conducted on behalf of the Colony at the Imperial Institute during the year 1907 (CO, 1908b, 35).

It was a map embedded in the political-economic discourse of the colony. These colonial reports were not only an administrative review of colonial administration but also a document meant for the British public, particularly potential financial and economic investors. In addition, this map was available to the business class who was interested in the section on '*Future Prospects of Trade*' in the annual colonial report. Therefore, the map aided the geographical knowledge of economic prospects in the colony. In addition, the map was available to the political class of Britain. The British Parliament received the report in November 1908 (CO, 1908b). The visualisation of space on the map lends credence to the issues and matters in the colonial report. As aforementioned, the fundamental concern of the colonial project was the economy.

The compilation and production of this map were aided by earlier map work and surveying. Surveying in the earlier years of colonial rule often emerged during railway development. For example, the Lagos colonial government reported that "The railway has been constructed as far as Abeokuta, and surveys to Ibadan, about 120 miles from

Lagos Island, have been made" (CO, 1901, 11). In 1905, in connection with railway construction, the colonial government reported, "The survey was pushed forward rapidly, and completed for a distance of over 50 miles" (CO, 1906, 42).

By the mid-decade, several government departments were expanding the survey and mapping of the colony. In 1906, the intelligence department reported, "Most useful work has been carried on in this department during the year in compiling maps and sketches of new country and in reproducing and distributing maps and written information regarding the resources and topography of the Colony and Protectorate and the means of communication throughout the country" (CO, 1908a, 87). Similarly, the work of the colonial survey department "has been chiefly topographic and geodetic, comprising mainly accurate theodolite traverses and refined telegraphic exchanges, for the purpose of establishing absolute and independent checks on the theodolite work" (*Ibid*, 65). Earlier map work was reflected in Fig.4.5.

A prominent feature depicted on the colonial space since the inception of mapping the colony was the infrastructure of capitalist modernity – transport and communications. For example, on a 1901 '*Map of Nigeria*,' a significant cultural feature on it was the thick dark line representing the railway across the southern Yorùbá landscape. The firm of Edward Stanford made this map with a scale of One Inch to 30 Miles for the Intelligence Division of War Office (IDWO) but heliozincographed at the Ordnance Survey, Southampton. In 1907, a map at 1:250,000 scale titled '*Map of the Western Province of the Colony and Protectorate of Southern Nigeria*' displayed the railway as the most important cultural feature on the landscape.

The Nigerian colonial survey department compiled the 1907 map under its director Mr E.P. Cotton (Collier, 2006). Although, the map provided some cartographic coverage of rural geographies of Yorùbáland but it served the purposes of the General Staff at the British War Office. Hence, the colonial administrative community and the few cartographic literates amongst the Yorùbá colonial subjects had to construct their geographical imagination of the new political geography through the available small-scale map, for instance, the administrative map illustrating the 1907 colonial report. This official visualisation of space increasingly began to play a role in the geographical imagination of the political economy of the landscape.



Fig.4.5 Western Province, 'Southern Nigeria' Scale: 1:4,000,000, 1907 Source: University of Illinois, Urbana-Champaign, 2010 (London: HMSO, 1908)

The two-dimensional view of the landscape evoked objectivity through its mathematical frameworks. As indicated, the two forms of map scale, the representative fraction (1:4,000,000) and the verbal scale of '1.014 Inches to 64 miles', impressed proportionality, a correspondence of the pictorial representation and the actual geographical world. The geometric construction of space ascribed classification to the landscape. For example, the map symbolisation drew the reader's attention to the

hierarchical organisation of space through the different boundary lines and the thick dark lines. The graphic evokes an impression of the superimposition of the new political order on the native states. Although the map space seems crowded with geometric shapes and lines, the map reader's attention was drawn to the thick dark line, a subtle viewpoint of economic progress on the landscape.

The geographical identity of the depicted landscape included natural and cultural features. The river systems and the coastline are the only natural features depicted. For example, the river Ogun and its tributaries had become associated with the representation of Yorùbáland. All the previous maps have always portrayed this river alone or with its tributaries. The cultural features depicted include territorial divisions; settlements; and transport and communication. However, the last theme stood out in the cultural landscape. As illustrated, the railway coming from the Lagos seacoast in 1895 passed through Ibadan, where it reached in 1901, and Lalupon, towards northern Yorùbáland (CO, 1901; Ekundare, 1973). Looking at Fig.4.5, the colonial railway as of 1907 had reached Ilorin. Apart from the railway transport, telegraph lines, also coming from the coast, extended to Ibadan from where it branched to Oyo and Osogbo. Hence, the depiction of several settlements on the landscape was associated with colonial transport and communication network.

The cartographic gaze in this map reflected the partial visibility of the indigenous agrarian practice of the farm village (Driver, 2012). This gaze resulted from the increasing scientific discourse of cartographic representation concerned with the twofold ideas of measurement and order as well as classification (Harley, 1988b). For example, the demarcation of space into districts of the Western Province of the Southern Nigeria Protectorate reflected a scientific precision of spatial order. Several district boundaries within the province were straight lines. This cartographic gaze reflected an administrative landscape but also suggested broader colonial economic discourses.

The visualisation of the economic infrastructure of capitalist modernity was evident beneath the screen of scientific notions of uniformed order and classification (Harley, 2001). As indicated, the label '*Iwo Stn*' in Fig.4.5 reinforced the strong connection of the colonial government, British commerce and the railway. Governor Walter Egerton acknowledged the colonial revenue success for 1907 was due to the good oil palm season

and high European market prices. He also noted that at "the same time due weight must be attached to the following factors" (CO, 1908b, 3). These factors include, "Improved means of communication by the extension of the railway, the construction of roads, the clearing of rivers, and the establishment of public transport services, resulting in the markets being made more accessible and in a consequent increase in the produce output" (CO, 1908b, 8). In addition, the telegraph network connecting the towns was very noticeable. Henceforth, the colonial space *instituted* a landscape that reflected settlement geography associated with colonial transport and communication network.

This economic landscape almost erased signs of previous indigenous agrarian practice. For instance, the whole landscape reflected administrative geographies or the colonial transport system, except the depiction of Lalupon and Isoya villages. Although depicted in connection with the railway and subaltern politics, their partial visibility drew attention to the pre-existing indigenous agrarian practice. These two villages were also farming centres of Ibadan and Ife respectively. In addition, some towns depicted drew attention to the previous perceptions of the economic landscape. Driver (2012, 424) argues that the notion of partial visibility can be employed to tell a larger story. The 'acclaimed colonial economic productivity' was also a responsive character of the indigenous agricultural practice, which occasionally emerge in the wider spatial discourses. For example, regarding the production of cotton around the Yorùbá hinterland, a commercial intelligence officer observed that:

> in the Lagos province we have in the fifth year shipped a crop of 9.000 bales of 400 Ibs, and it must not be forgotten then that this has been produced in a country where there are strong competing industries which will not apply to anything like the same extent beyond Ikerun, and that only hoes and manual labour have so far been used on the farms (CO, 1908b; 12).

Beyond Ikirun, as the colonial officer argued, referring to the Northern Nigeria Protectorate, such an intensive agrarian economy did not exist. Hence, reproducing the same colonial economic success would be difficult. Although colonial economic success relied on its agricultural prosperity, the agrarian identity that made it possible gradually became invisible in the official cartography available to the public. I argue that the standardisation and uniformity of scientific and socio-political discourses of early

colonialism accounted for the partial visibility of indigenous agrarian presence on the scantily filled geo-cartographic space (Harley, 1988b).

These depictions of capitalist infrastructure evoked an emergent economic space drawing attention to itself. It projected a perception ideologically different from those presented in the unofficial maps of the previous century. For instance, this exclusive, modern transport-oriented worldview imposed by colonial cartography on the geographic space reinforces the supposed brilliance of capitalist economic rationality. In addition, these modern infrastructures became a cultural symbol of capitalist modernity's superiority to 'African' economic practices. As the Southern Nigeria colonial administration described indigenous agrarian practices as "Their system of agriculture, as practised in the more wooded portions of the country, is one of the most wasteful known. Steps are taken to induce them to adopt improved methods, but progress in this direction is still slow" (CO, 1908a, 37). However, subalterns used the farm village practice to organise the cultivation of economic plants. These are the cash crops exported through the colonial transport system. It was a transition of perceiving the economic Other as a colonial Other. Hence, the small-scale maps of scientific cartography were visual dimensions that gradually inculcate the colonial metanarrative of the backward African agricultural landscape.

Western Provinces of the Colony of Nigeria, 1914

The Outline Map of Nigeria shown below (See Fig.4.6) illustrated the annual colonial report for 1914. The British parliament received this report in April 1916. Unlike previous official maps, the name of the state mapping agency was not explicitly included in it. Hence, it was probable that the Nigeria Survey produced the map in Lagos. Owing to the commencement of hostilities in Europe, the British Ordnance Survey became concerned with meeting the war demands for maps such that it might not be in a position to provide map production services to the colonies (Prior, 2013). The position of this administrative map illustrating the colonial report was on the last pages of the 57-page report (CO, 1916). This practice of administrative map illustrations visually aided arguments of the benefits of the colonial rule stated in these reports. In 1911, the colonial government reported that

If the readers of this report will look at the map of the Niger Coast Protectorate as it was in 1896, and compare it with the most recent map of Southern Nigeria, they will realise the magnitude of the work done in opening up the country and rendering the great river from which the region derives its name safe not only to navigators, but, from a larger point of view, safe for the lives of the traders and others who now follow their vocations in peace without fear or hindrance from the upcountry natives (CO, 1911, 31).

These administrative maps also drew attention to the exploitation of commercial opportunities by the colonial business community. For example, there was the significance of the depicted Ibadan-Oyo road that linked Oyo with the railway at Ibadan. This railway had an obvious impact on the emerging European competition in palm oil commerce in Oyo town and its surrounding areas (CO, 1911, 25). Hence, the government and the European business community had acted upon Captain Lugard's observation of '*Many Oil Palm*' near Oyo, portrayed on the 1895 map (Fig.4.3).

The production of these administrative maps revealed continued colonial map work and surveying. The main technique of the ground survey was the plain-table (Adebekun, 1986). Plane-table surveying involves a graphical method in simultaneous fieldwork and plotting. There was intensive surveying of the crown colony. For example, the colonial government reported, "The cadastral survey of Lagos has been continued during the year. Its early completion is very desirable in view of the difficulties in locating existing holdings, many of which appear to have diverged from the correct boundaries and in some cases to be supported by inadequate titles. It is also essential that native titles dating from a date prior to the Cession of Lagos should be - properly defined and recorded" (CO, 1914, 20). Hence, the emergence of detailed cartographic coverage for colonial urban spaces began.

There was also intensive production of medium-scale maps as part of a general compilation of colonial maps. As Guggisberg noted, "The standard map of the colony is part of the general map of Africa, scale 1: 125,000 which is being gradually completed by the Survey Departments of the various British colonies and protectorates, and by the Geographical Section, General Staff, War Office. The conventional signs, system of printing, etc., used in the Southern Nigeria standard map are, with certain adaptation to local characteristics, founded on the system used in the production of the War Office map

of Africa" (Guggisberg, 1911, 3). However, the commencement of hostilities was a challenge to the surveying and mapping of the colony. For instance, the government reported, "Progress was made with the survey until the outbreak of war, when the whole of the survey party were withdrawn for service in the field" (CO, 1916, 9). In 1914, there was a merger of the survey departments of Southern Nigeria and Northern Nigeria Protectorates. Hence, there was the establishment of the Nigeria Survey.

The economic infrastructure of capitalist modernity became a more prominent feature of the colonial space. As illustrated, there was a highlight of the railway and telegraph line on the 1909 *Outline Map of the Colony and Protectorate of Southern Nigeria*. The very legible railway, on the map, had the mileage of the towns on the network indicated while displaying the telegraph system as straight lines. The depiction of some settlements, I suggest, was due to their economic value to the colonial project. For example, the opportunities of economic exploitation of agriculture and forestry at Ila, located near the northwestern boundary of the province, was made by the Conservator of Forest (CO, 1911, 11). Again, there was an emphasis on the railway and the telegraph lines on the *Outline Map of Southern Nigeria* of 1912. Unlike the previous map, curved spiked lines depicted the telegraph lines rather than straight lines. In addition, a label placed along the lineal feature reflected the significance of the railway on the *Outline Map of Southern Nigeria* of 1913. Like in the previous maps, a shaded territory represented the crown colony. The colonial economic discourse embeds the semiotic stability of representing the colonial transport system on the landscape.

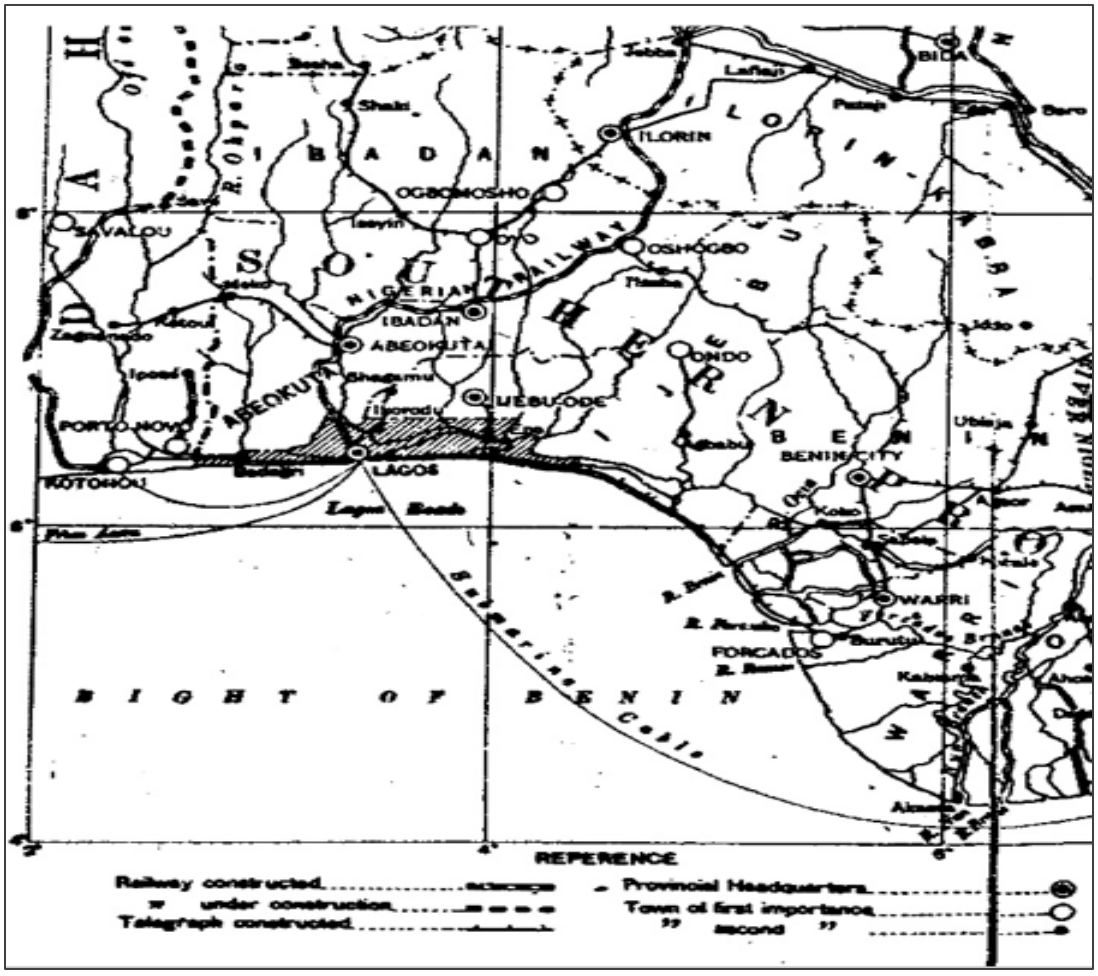


Fig.4.6 The Southwestern Provinces. Outline Map of Nigeria, 1914. Source: University of Illinois, Urbana-Champaign, 2010 (London: HMSO, 1916)

Fig 4.6 reflected a normalised, objective appearance of the geographic space by 1914. For example, the graphic production of the colonial space drew attention to the hierarchies of spatial organisation on the landscape. The varied symbolisation distinguished between classes of administrative boundaries and classes of communication lines, intimating the reader with the contours of the administrative space. Likewise, the hatching lines visualised the source of colonial power located in the colony of Lagos. In addition, the hierarchies of towns, differentiated by size and value of the circular symbolisation informed the reader of the progressive entrenchment of the new political geography on the landscape. Besides, the continuous spiked thin lines of the telegraph system distinguished it from the thick dashed line with a dense line weight depicting the railway

across Yorùbáland. The cartographic design of this small-scale map evoked a visual imprint of colonial political-economic geography.

The geographical landscape depicted the barest minimum of natural and cultural features. Apart from the coastline, the other natural feature depicted were the rivers, all unnamed, except the Opara (Okpara) – which serves as an international boundary. This was in contrast to the *Outline Map* of 1912 and the *Outline Map* of 1913 that did not depict the river system. Like other parts of the colonial space, the scientific standardisation of Yorùbá landscape representation had begun (Harley, 1988b). The cultural features portrayed include towns, political-administrative divisions, and transport and communication network. Like in the previous maps, *The Outline Map of Nigeria* of 1914 gave prominence to the railway and telegraph line. For example, the railway was such a particular showpiece of the colonial state that the label '**NIGERIA RAILWAY**' emphasised its practical and symbolic identity on the geographical landscape. As earlier observed in the previous map of 1907, settlements on the transport and communication network had the cartographic privilege of visibility. For instance, the portrayal of Oyo, Ogbomoso, Osogbo and Ondo had their visibility on the cartographic landscape owing to their location along with the telegraph network.

The invisibility of the indigenous agrarian landscape was noticeable in Fig.4.6 (Clayton, 2003; Driver, 2012). The cartographic gaze was concerned with distancing the colonial Other. The resulting geometrical landscape revealed the ongoing impact of the scientific discourse of visual representation. This was evident in the borders and ordering of spaces that instituted the new administrative geographies. Examples include the internal administrative boundaries of Yorùbá Provinces of Abeokuta, Ibadan and Ijebu. Also, the external colonial boundary between Southern Nigeria and French Dahomey utilised the River Opara (Okpara) towards the northern areas. The political ordering presupposes a small-scale map devoted to administrative purposes.

Despite a small-scale map and standards of scientific representation, the economic infrastructures of capitalist modernity were visible. I argue that cartographic privilege of visibility reflects in the portrayal of investments of European capital in this political-economic landscape. For instance, the railway, telegraph lines, cables, and seaport (Lagos Roads) were evident as an economic viewpoint of colonial power. For instance, Colonel

F.D. Lugard reported, “Immediately before the declaration of war, traffic prospects, and the general financial position of the railway, were ….very favourable” (CO, 1916, 30). The railway infrastructure reflected the imperialist phase of capitalist accumulation. As Rosa Luxemburg (1913, np) observed, “the development of the railway network more or less reflects the penetration of capital”. Hence, beyond a simple administrative map, it was also a political-economic statement. This depicted landscape was reproducing economic statements – an ontogenetic becoming of the map over time (Kitchin and Didge, 2007). These economic infrastructures were a central core of the colonial project.

Besides, the prominent visibility of these capitalist-financed infrastructures reflected the impact of capitalist modernity on both natural and cultural features. These transport and communication systems had led to the receding economic importance of the rivers. There was no improvement in the nineteenth-century artery of commerce and travel, even where there were no challenges of rocks or rapids. For example, there was no considering the Ogun River nor the Osun River for dredging by Colonial Marine Department. River clearing referred to in the colonial reports was restricted to the rivers of the coastal belt (CO, 1911, 31; 1914, 31).

In contrast, equal visual recognition did not arise for spaces of indigenous economic production. There was no space on the small-scale official map for any symbolic reference to African agriculture. To illustrate this, the depiction of Agbadu, south of Ondo town, in Ijebu Province in Fig.4.6, reflected mineral oil prospecting by the Nigeria Bitumen Corporation around the area rather than a reference to African agriculture (1908b, 29; Akinyosoye, 2020). Therefore, based on the technical constraint of small-scale maps, the farm village practice was “being written out” of colonial spatial discourses (Harley, 2001, 179). As Luxemburg (1913, np) contends, “the construction of the railways and the sovereign debt contracted for this purpose primarily served to drive out the natural economy and to facilitate the proliferation of the commodity economy”. This was a continuation of re-framing indigenous territories as a colonial space. Symbolic references suggestive of indigenous agrarian practice further receded from the political-economic landscape. Thus, Fig.4.6 was a visual reproduction of ‘Yorùbá urbanism’, a part of colonial transliteration of indigenous geographies, according to modernist, colonial political-economic thought.

4.2.3. The Inter-War Period in Yorùbáland

In the inter-war period, state cartography devoted much of its work to cadastral surveying and mapping (Balogun, 1989). Nonetheless, there was a contrast in the representation of rural landscapes in colonial geographies to the urban space. Hence, state maps continued to provide a visible knowledge of rural spaces but with a particular viewpoint of colonial modernity. I argue that the visual representation of space in colonial cartographic maps in the inter-war years reflects urban-rural dichotomies. The rationalities of capitalist modernity were the basis of this dichotomy of rural-urban space (Harvey, 1978; Mamdani, 2018). Nonetheless, there were also the privileged rural representations associated with the colonial administration. These are specific rural spaces highlighting the dichotomies of the colonial landscape (Loomba, 2005, 43). The prominent visibility given to the urban space reinforced the cartographic silence on colonial maps that created the rural Other.

Lagos and Environs, 1929

The Nigeria Surveys in Lagos drew and reproduced the Map of Lagos and Environs in August 1929 (Fig. 4.7). Fig.4.7 was one of the several maps illustrating the socio-economic and socio-political themes in the Nigeria Handbook. Hence, these maps visualised discourses of interest to the administrative and business community. For instance, a chapter on "Suggestions for newly-appointed Government Officers" in every edition emphasised the handbook as a source of information for new entrants into the civil service (Nigeria Handbook, 1929, 212). This suggests a wider readership of the handbook in the United Kingdom and Nigeria. Likewise, the handbook served the purpose of publicising business firms. For example, there were advertisements from 50 business firms in the handbook. These maps visualised the geographic locations of the Nigerian branches of these European firms.

Interestingly, the handbook seems to fill a gap in the visualisation of colonial space. For instance, there was no illustration of annual colonial reports with administrative maps between 1918 and the mid-1920s. Indeed, there seems to be a general lack of state maps in the early 1920s, which also influenced the exploitation of economic resources. For

instance, the government reported, “In the Southern Provinces the further investigation of the coalfield was delayed by the absence of maps” (CO, 1926, 18). However, during this period, several maps illustrated the editions of the Nigeria Handbook. Although the Handbook served mainly the educative need of the colonial administrative and commercial community, a small number of Western-educated Africans also had access to it.

Fig.4.7 illustrated the Nigeria Handbook of 1929, “containing statistical and general information representing the colony and protectorate” and “published by authority” (Nigeria Handbook, 1929, x). The positioning of Fig.4.7 in the handbook was strategic, considering the geographic knowledges it visualised. The map’s position was between the end of Chapter XVIII on Town and Municipalities and the beginning page of Chapter XIX on Land Tenure. Unlike the colonial reports, there were several small-scale maps in the 1929 edition of the Nigeria handbook with specific illustrative purposes. However, an administrative Map of Nigeria and this Map of Lagos had the ‘largest’ cartographic scale. The Map of Lagos was a folding map with a dimension of 30 cm x 29 cm.

The production of these large, medium and small-scale maps and plans reflected the shifting character and expansion of colonial surveying and mapping. Geological maps, apart from the Geographical Section of General Staff (GSGS) topographical maps, had precedence over other state maps. For example, the colonial government reported that in Northern Nigeria, “Maps of the Minesfield were compiled in sheets on a scale of 1: 62,500 and kept up to date for the inspection of the public. A complete set of Province maps was made available for general use” (CO, 1921, 18). Again, the surveying and mapping of the colony also involved several Africans. For instance, in Southern Nigeria, the government reported, “Field work was done almost entirely by native surveyors who proved themselves remarkably efficient in all classes of work. The year disclosed a striking development of commerce with a consequent heavy demand for the survey of trading sites” (CO, 1921, 19).

In addition, there was intensive work on surveying and mapping the crown colony on a larger scale. The colonial government reported that “The splitting into sections, and the demarcation of plots on the land acquired at Ebute Metta and Yaba was proceeded

with a considerable proportion of the area was marked out" (CO, 1925, 26). Besides, "Approximately 3,000 plots were laid out in the Yaba Settlement" (CO, 1926, 27). Consequently, the maps in the handbook had visualised information of business locations in the crown colony for its readership.

In 1926, the trigonometrical survey of the colony began (Uluocha, 2008; Wood, 1937). The Nigeria Colony Coordinate System, which commenced in 1926 expanded across the colony. For example, the Survey department reported, "the primary framework was further extended by the completion of the chain of triangulation between Minna and Abeokuta, and the junction of this chain with the Udi-Lokoja chain to the south of Bida" (CO, 1929, 37). In 1928, there was the adoption of the Clarke 1880 Spheroid for the Nigeria Transverse Mercator (Mugnier, 2009; Wood, 1937). Also, in 1929 the trigonometrical programme "comprised the completion of the Udi-Lokoja chain and the re-arrangement and re-observation of portions of the old chains…to bring them up to the standard necessary for a modern framework" (CO, 1930, 34).

Besides, the survey department was making maps available to the colonial community. The 1919 Handbook informed the reader, "The Survey Department has surveyed a great deal of the country and several maps have been published. Applications for maps should be made to the Surveyor General, Lagos" (1919, 122). Also, the reader of the 1929 Handbook was informed that "the department was lithographing its maps in Lagos where a certain amount of outside work in the preparation of maps and charts for Annual Report for other Departments is also undertaken" (Nigeria Handbook, 1929, 222).

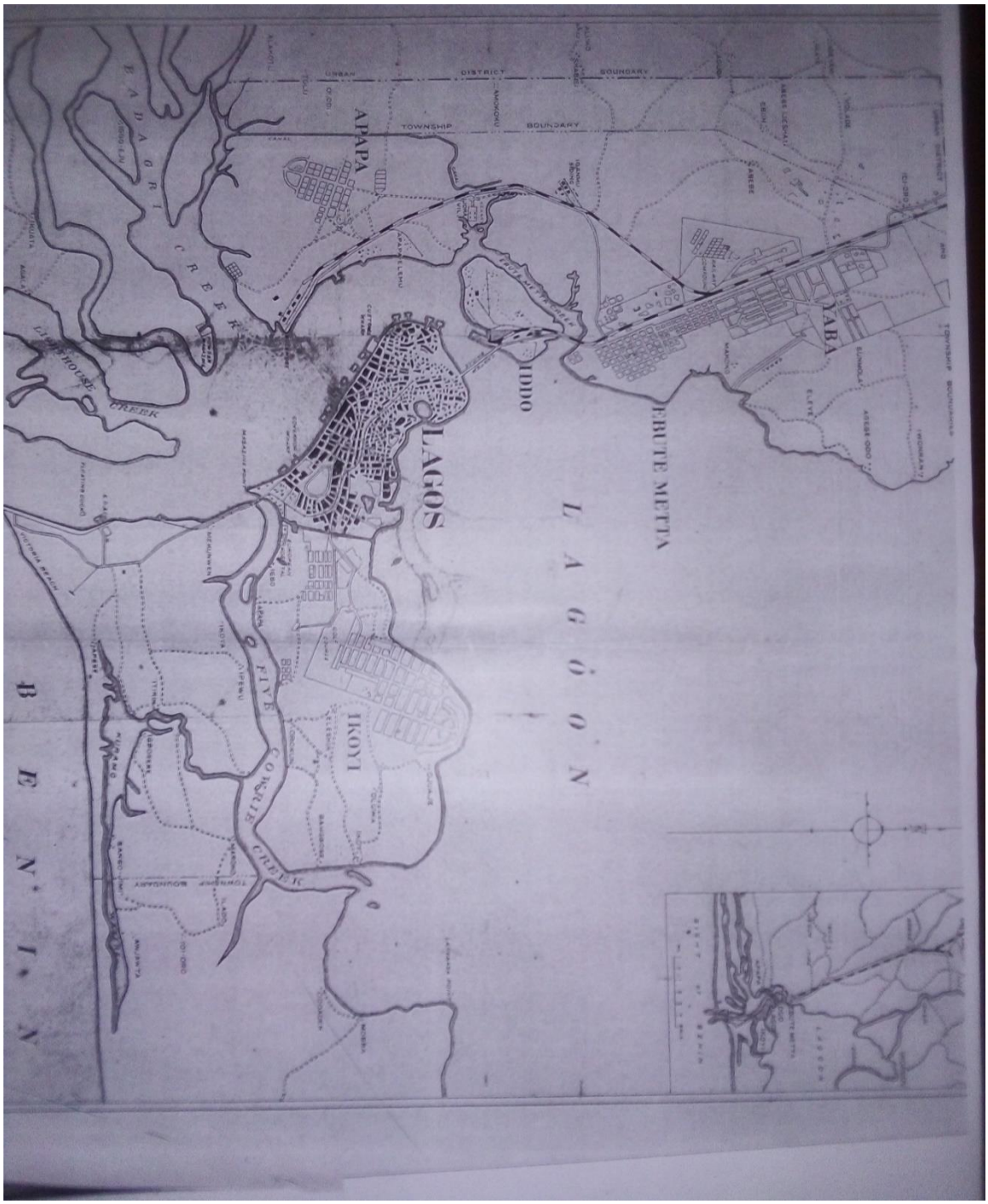


Fig.4.7 Lagos and Environs 1929; Source: Nigeria Surveys, 1929 (Lagos: Nigeria Handbook, Government Printer, 1929).

The economic landscape represented on maps illustrating the editions of the handbooks reflected the infrastructure and institutional image of colonial capitalism. The 1919 edition of the Nigerian Handbook had only one map titled *Outline Map of*

Nigeria, produced in 1918 by Edward Stanford's Geographical Establishment in London. The prominent cultural features on the map were the railway and the telegraph facilities. The telegraph lines portrayed lines in actual operation and those under construction. A thick dark line depicted the railway. In contrast to the 1919 edition, the 1922 edition of the Nigerian Handbook had three maps illustrating it. These were maps showing the "Distribution of Tribes and Languages", "Lagos and Environs", and "Nigeria". On the back cover of the handbook was the *Map of Nigeria* displaying the ever-present railway.

The folding Map of Lagos and Environs illustrating the 1929 Nigeria Handbook presented an objective, two-dimensional view of the colonial capital and its immediate hinterland (Fig.4.7). For instance, the proportionality of landscape suggested by the locator-inset map shows the relation of the islands to the mainland. Geometric representations on the map face instituted a sense of ordering. For example, the graphic construction of Lagos and its Environs employed sizes, shapes and values to express an evolving landscape. The curves of the shorelines of the water bodies' stand in contrast to the geometrical lines of the mainland to the left and of the island to the right. In addition, the viewing attention of the reader seems to rest at the centre of the map face, where the straight lines flanking it to the northwest and southeast direction visually balanced its dark shapes. Together with the varied linear symbolisation of communication systems and political boundaries, helmed by a hydrographic concern and a sparsely depicted countryside, the graphic impression suggest a developing urban social geography.

The geographical landscape depicted natural and cultural features. The only natural feature on this main map was the water bodies – the Lagoon, Atlantic Ocean's Bight of Benin and its coastline. In contrast, the inset map informs the map reader concerning the estuary of the Ogun River. The cultural features portrayed include residential, social, economic, socio-physical and administrative features. A noticeable depiction was the residential patterns of the inhabited islands. For example, the depiction on Lagos Island the residential quarters, layout roads and footpaths connecting villages to the township. Indicated on the landscape are several social facilities. Examples include the depiction of the European hospital, the golf course and Victoria beach.

Economic features are also discernable in the landscape. For instance, there was the railway compound on the Lagos mainland at Ebute Metta, and the Elder Dempster and

Company's Jetty near Victoria beach. In addition, the map signified socio-physical infrastructures such as Carter Bridge, the signal station and the lighthouse on the urban landscape. Furthermore, the graphic depiction of the administrative division informed the map reader that the islands and parts of the peninsular are parts of the township of Lagos. An urban district boundary, west of the township boundary, had several rural settlements within it. Therefore, beyond the elaborate residential patterns of the township on Lagos, Ikoyi and Victoria Islands the landscape also included villages that stood in sharp contrast to the township.

Fig.4.7 reflected the notion of dichotomies that drew attention to the spatial difference between towns and villages (Loomba, 2005). I argue that the cartographic representations of space visualised the wider colonial discourses of urban-rural dichotomy. As Simic (1976, 227) observed, "traditional and modern society are regarded as polarities, each with its mutually exclusive set of traits". This spatial difference revealed the combination of scientific and political-economic discourses, which ordered the binary of spaces. This bifurcation of space was evident between township quarters of the urban space as well as between urban centres and villages.

There were visual distinctions within the geometrical landscape of the urban centre. For example, there was difference between the geometrical layout of the European residence on Ikoyi and the darkened portrayal of the older indigenous quarters of Eko Island. Also, there was dissimilarity between planned layout of the Western-educated Africans on the mainland at Ebute Metta, Yaba and Apapa, and the scanty indigenous presence on Iddo Island. The former layouts were evidence of order, light, rationality. The latter quarters exudes disorder, darkness, irrationality – the sense of the 'African Other' and its implied inferiority. The connotative implication of this shading, as Dodge (2008, 209) argues, can "reinforce notions that these are the darkest areas with shadowy people and endemic failure". In contrast, the light shading reflects an "impression of progress, success and light of reason". A situation termed by Cosgrove (2003, 134) as "cartographic gloom" was apparent in this visualisation of colonial difference. Furthermore, Dodge (2008, 209) contends that a combination of psychological, physiological and subjective judgement can lead to "interpretations in complex ways" from this visual classification in hue perception.

There was also a distinction in the cultural landscape between the polygonal shapes of township quarters and the dots representing the rural villages. The dots referring to the rural settlements visualises the bifurcation of space – a symbolic expression of the rural-urban dichotomy (Mamdani, 2018). An example includes the contrast between the geometrical landscape of Ikoyi and the dotted villages to the east – Ikoyi, Oluwa, Bamgbose and Eleshin. As the handbook noted, "the town of Lagos is built on the western portion of the Island and occupies not much more than a quarter of it, the remainder being covered with trees and scrub" (Nigeria Handbook, 1929,183).

Conceptualised in dichotomous terms, the rural Other was classed as part of nature, but the *remainder* of the islands were not just 'trees and scrub', they included villages as depicted on the map. In addition, Victoria Island, south of the Ikoyi layout, was distinctly different to the villages of Ikoya, Mekunwen and Ipewu located there. Again, on the mainland, there was a sharp contrast between the Lagos Executive Development Board (LEDB) layouts of Ebute-Metta West, Yaba and Apapa, and the depicted villages of Makoko, Sunmola, Idi-Oro, and Amukoko. Although visible in map form, the impression was that of a rural landscape denigrated as inferior and classed as part of nature (Castree, 2005).

Therefore, this visual discourse reflected the emergence of the reversal of urban-hinterland relations as an indigenous agrarian practice. For example, Lagos, which became the focus of the colonial urbanisation process in southwestern Nigeria did not commence as a European creation or commercial centre. The Awori-Yorùbá settled one of the Islands, Iddo, sometime in the early seventeenth century (Atanda, 1980). However, owing to the challenges of establishing extensive farms on the mainland, they appropriated Eko, the main Island, for farming. Indeed, this main island and later this group of islands took its name from '*Oko*', meaning 'a farm', which was later corrupted to "*Eko*" (Lucas, 1894, 221; Oyeleye, 2001, 289).

It was the channel of the port of these Islands that Portuguese sailors-explorer named "Lagos". Brazilian and other European merchants (Lucas, 1894, 221) later extended this geographical place name to the Islands in the nineteenth century. Interestingly in 1887, as aforementioned, the Lagos colonial government established the Victoria Botanical Gardens at Ebute-Metta. From here, tonnes of new and improved

seedlings of "economic plants" were sent into the interior of Yorùbáland (Dennett, 1919, 266; Millson, 1891, 586). However, regardless of these associated agrarian beginnings and linkages, the evolving economic landscape (re)presented by the visual authority of colonial power was that of an urban centre remotely concerned with agriculture.

This depicted urban landscape connotes important meaning not only for the colonial European community but also for the Yorùbá hinterland, its agrarian landscape and the entire colonial economy of Nigeria (Morel, 1902, 193). This urban space did not just proclaim the superiority of colonial power as seen in the well-ordered, geometrical layout of Apapa and Yaba, but also the glory of capitalist modernity reflected in the railway compound, canal, custom wharf, the railway and the main roads. This was the abstract space fashioned by the productive forces of capitalism (Blaut, 1970, 79; Lefebvre, 1979, 186). As Lefebvre (1991, 347) observed, "The urban fabric, with its multiple networks of communication and exchange, is likewise part of the means of production. The town and its multifarious establishments (its post offices and railway stations - as also its storehouses, transportation systems and varied services) are fixed capital".

Here was the colonial space that determined and dictated the socio-economic system of the colony. As Harvey (1978, 120) argues, "capital represents itself in the form of a physical landscape created in its own image, created as use values to enhance the progressive accumulation of capital". Thus, the well-labelled economic infrastructure visually reinforced the confidence of the capitalist investors of colonial stocks of their profit in colonial investments (Constantine, 1984). As Wood (2002, 164) surmised the "imperial legitimacy of the colonial power was rooted in the productive activities of its subjects" – the private actions of industrious citizens and subjects. The refashioned indigenous agrarian landscape became a space of economic exploitation, for both European and emerging African capitalists (Morel, 1911, xviii-xix). By so doing, this colonised space mirrored the evolving economic realities of colonial subjects. Thus, this colonial cartographic space affirmed the notion of the city as the cradle of capitalist exploration.

The South-western Provinces of Nigeria, 1939

Fig.4.8 is a segment in the *Map of the Colony and Protectorate of Nigeria* reproduced by the Land and Survey Department of the Nigerian Colonial Government at Lagos in February 1939. His Majesty's Stationery Office (HMSO) in London published this cartographic illustration as part of the colonial report for the previous year. In 1939, the British parliament received this 1938 annual colonial report on the social and economic progress of the colony of Nigeria (CO, 1939). The resumption of illustrating the colonial reports with maps began in 1928 (CO, 1929). The uses of these administrative maps remained largely for administrative purposes. However, the business community and education sector were also using these maps. In particular, Fig.4.8 had become part of the administrative service. As aforementioned, it served as an office map. This visualisation of colonial space was crucial as administrative supervisors of the Native Authorities (NA) – Residents and District Officers sought to implement the Donald Cameron's NA reforms of the 1930s that meant to "lift them gradually to a higher civilisation" (Cameron, 1937, 3).

In addition, there was increasing use of these administrative maps in illustrating colonial documents. Unlike the topographic sheets, it was available to the public. For example, Guggisberg (1911) referred to the 1:125,000-scale topographical map as the standard map, but it was only available to the British War Office. Thus, the administrative map aided the geographical imagination of general and departmental administrative officers on 'native administrative discourse'. This NA discourse focused on producing "crops for export (as well as for subsistence), to pay the cost of European Government, and for the ever-increasing imports which have now become necessities" (Lugard, 1937, 393-394). Besides, as an illustrative device, there were variants of this administrative map of Nigeria. Indeed, schools and colleges employed it for educational instruction. Although an administrative map, it contributed to making visible the political-economic discourses of the colonial state.

The surveying and mapping of the country were also intensified (Balogun, 1989). However, the repetitive use of this standard administrative map suggests a symbolic reflection of the slow progress of cartographic mapping of the colony by the government. Although, considerable work in setting up a primary triangulation survey for the country was developing, there were still very few large and medium-scale maps available. For

example, the Executive Engineer of the Ibadan Native Administration (INA) in July 1931 informed the Ibadan District Officer about large-scale cadastral map supply that Survey Department "had none to sell to private individuals" (Executive Engineer, INA, 1931). Beyond sales by the colonial survey department, these small-scale administrative maps became procurable by the public – Europeans and Western-Educated Africans, through other outlets in the colony. For example, the 1930 *Map of Nigeria* of scale 1/2,000,000 was available for procurement at the Church Missionary Society (C.M.S.) Bookshop, Lagos (CO, 1935, 98). Indeed, substantial dissemination of maps for educational purposes occurred through the CMS Bookshop. In 1938 the 1:100,000 topographical map series replaced the old standard sheet of 1:125,000 topographical map series (Collier, 2006; Guggisberg, 1911; Uluocha, 2008).

These official maps by the 1930s had further normalised the representation of space primarily as the economic landscape of capitalist modernity. The administrative maps illustrating the colonial reports of the 1930s were essentially reprints and re-issues. The map design of Fig.4.8 had become the 'standard map' used in the annual reports during this decade (1931-1939). Therefore, these maps illustrating the reports presented the transport and communication network in its usual format. For instance, the 1931 *Map of the Colony and Protectorate of Nigeria* with a representative fraction (RF) of 1:3,000.000 represented the landscape with the prominent network lines of road and rail transportation. Similarly, the 1936 *Map of the Colony and Protectorate of Nigeria* had an RF of 1:3,000,000 with the strong contrast of the dark thick lines of the railway on the landscape.

Interestingly, the village of Iju in the southern part of Abeokuta Province appeared for the first time on the 1936 administrative map. In addition, the 1937 *Map of the Colony and Protectorate of Nigeria* had the same RF of 1:3,000,000 or verbal scale of One Inch to 47.35 Miles as the previous maps used during the decade. The Nigeria Surveys reproduced the map at Lagos in January 1938. Noticeably every town portrayed on the map face in 1938 was located along the transport and communication network. However, the village of Iju was also present in the landscape.



Fig.4.8 Western Provinces; Map of the Colony and Protectorate of Nigeria Scale: 1:3,000,000, 1939 Source: Maps and Geospatial Data, Princeton University Library, (Lagos: Nigeria Surveys, 1939)

The vertical perspective in Fig.4.8 evokes the representativeness of the reality of space beyond the previous spatial experiences. As illustrated, there was a visible knowledge of the political-administrative organisation of space. These geometric patterning of administrative units furthered the normalisation of this objective sense of spatial order. For example, the hierarchical organisation of the landscape reflected a geographical space constructed with lines, shapes, sizes and colours. Likewise, this hierarchical spatial order reflects through different typographical styles, fonts and sizes. In contrast to the brightness of the colours depicting the administrative landscape, the thick dark line across it draws attention to its visual significance. The simplicity of the depicted landscape instils a persuasive effect of spatial truth. This was the visible form of the naturalised spatial production of colonial political geography.

The geographical landscape was essentially an administrative space. Apart from the natural features of coastline, the lagoon, and the River Niger, it reflected cultural features of distinctive hues. For example, there were four provinces of Yorùbáland in Southwestern Nigeria – Oyo, Abeokuta, Ijebu and Ondo – depicted in orange, grey, yellow and green colour respectively. Similarly, draped in orange colour was the Colony of Lagos. In addition, there was a prominent display of transport networks on the landscape. For example, the depiction of the railway system in a black hue contrasted with the other colours. In addition, the density of the road network reflects the red colour of the road within the orange and yellow background of the Oyo and Ijebu provinces. The road network became an additional theme to the railway and the telegraph systems as a graphical framework for selecting the represented settlements.

However, the telegraph network had become graphically invisible, but it was still a cultural frame in the geometry of the represented towns. This was evident on the landscape; for instance, a comparison of Fig.4.8 and Fig.4.5 reveals that Oyo – Iseyin – Saki and Oshogbo – Ilesa – Akure – Owo – Ifon, which appeared 'natural' on the former map, are also on the latter (1907) as towns on the telegraph line. The road system reinforced this basic framework for depicting the other 'privileged' settlements. Although political-administrative toponyms on the depicted landscape were large uppercase letters, the map space does not seem to place constraints on the depiction of smaller towns and villages, particularly in Oyo and Ondo provinces.

Fig.4.8 reflected the notion of geographical privilege involving the dichotomies of modern economy and traditional agrarian economy evident on the geographical landscape. I contend that privileged landscape representation evokes the ideologies of capitalist modernity that reinforces the colonial binaries of traditional versus modern. The repetitive symbolic representation of the transport and communication infrastructure was an unintentional reproduction of space in the image of capitalist rationality. In Fig.4.8, the red colour of the road network stands prominently in contrast to the thick presence of the black hue representing the railway. Thus, it re-emphasises the significance of the transport system to the colonial project. As Luxemburg (1913, np) noted that:

A brisk trade in commodities immediately arises on the back of railway construction and mining (gold mines, etc.), and this gradually realises the capital advanced for railway construction or mining, along with surplus value … These two forms of investment constitute milestones in economic history marking the rapid dissolution of old economic formations, social crises, and the emergence of modern relations.

The spatial difference between towns and villages revealed representational hierarchies of place based on administrative function (Harley, 1988a). For example, Oyo town as provincial headquarter took visible precedence over Ibadan, a divisional headquarter. However, Ibadan was larger in population and spatial extent than the provincial headquarter. In addition, the classification of all other settlements was as towns and villages of lesser importance. This spatial classification of place denigrated several towns by classifying them together with villages (Sibley, 1995). Examples include the large towns of Ogbomoso, Saki, Osogbo and Iwo classed along with villages like Iju and Olokemeji. These administrative geographies of Yorùbáland revealed the normalisation of scientific classification of place began in the early colonial period.

However, there was an ascription of the geographic privilege of visibility to some rural villages classed along with these towns on small-scale administrative maps. As illustrated, the depictions of Iju village near the boundaries of the Colony and Abeokuta Province. Also was the display of Olokemeji village near the boundaries of the Abeokuta and Oyo Provinces (Fig.4.8). As aforementioned Olokemeji was a government agricultural and botanical station. On the other hand, Iju village was the site of "The Lagos Waterworks ….practically completed in 1914" (CO, 1916, 34). Following the notion of privilege, the depicting of these villages was an 'unearned cartographic advantage' in contrast to the 'conferred cartographic dominance' of the railway (Lee, 2018). These visual representations of the exceptional features made evident the idea of the good stereotype (Sibley, 1995). That rural settlement like Iju and Olokemeji appeared on the landscape raises the question of political silence in small-scale colonial maps depicting Western Nigeria. Why the portrayal of these two indigenous villages on a map meant for political-administrative purposes? The two villages symbolically drew attention to the capitalist logic and modernist rationalities. Why not symbolically display a few rural settlements around the indigenous towns that drove the colonial agrarian economy.

As I have argued earlier, the significance of farm villages on the indigenous economic landscape was well known to some colonial administrators. For instance, Perham (1933, 424) observed, "In some of the big Yoruba towns a considerable number of families have another house outside upon their farms, and a census at any one moment may give a false picture". Hence, the *Oko*, farm-village, was not only about farm operations but reflects spatial thinking of indigenous agricultural economy. Representing the two rural villages in Fig.4.8 embedded in colonial economic discourses did give a false picture of the indigenous agricultural landscape. As a result, an omission of indigenous socio-spatial relations from this colonially produced space seems an intentional silence (Harley, 1988a). Despite the silence on town-village relations, colonial cartography was unable to completely erase, but rather indirectly refer to, the physical reality of the agrarian landscape. To illustrate this, the impression of the road network not only attracts the map reader's attention but also reveals its role in the economic exploitation of the African agricultural industry. Therefore, the transport and communication network of the colonial economy was indirectly espousing the hidden geographies of the Yorùbá agrarian landscape.

4.2.4. Late Colonial Period in Yorùbáland

In the late colonial period, the notion of modern development hurried the need for cartographic maps (Lawson, 2007; Robinson, 2006). Social transformations owing to rapid political changes were increasing spatial consciousness. Although state cartographic maps and mapping became more useful in reaching out to the colonial subjects, the challenge of visualising space through small-scale maps reflected in socio-economic discourses and practices. The effort to remedy this situation echoed in new colonial mapping projects (Balogun, 1989) pursued but the resulting large and medium-scale state maps of rural areas were predominantly the worldview of specific social classes. Thus, I argue that the cartographic marginalisation of the rural landscape in state maps reflects modernist political-economic thought on agriculture.

Western Group of Provinces, 1948

‘Western Provinces, Nigeria’, was the title of the map (Fig.4.9) published in May 1948 in a colonial information booklet. E.O.C Williams, who drew the map, included a production date, 25th of September 1947. The map was apparently a reproduction from a base map through tracing. Such a base-map might have been one of the previously examined maps in this chapter or a similar map produced by the Nigeria Survey. This mapmaker was probably a staff of the Nigeria Survey or Western Nigeria town planning department. Since the reorganisation of the colonial administration in 1946, Ibadan became the headquarters of the Western group of Provinces (Oyeleye, 2001, 268), and new sections of regional administration were been set up there. Hence, the mapmaker might probably be a pioneer staff of a drafting section of this regional administration; for instance, the town planning department.

The map served as an illustration in a regional government pamphlet. The position of the map was on the front page of an information pamphlet titled ‘The Western Provinces’ issued by the Regional Public Relations Office in Ibadan (RPRO, 1948). The purpose of the visualisation was to aid educational and propaganda objectives. It was educative through its visualising of the new regional phenomena in the administrative geography of the colony. Again, the intended audience was beyond the inner circle of the administrative personnel of the colonial government. The recipients were primarily colonial subjects and residents of the Western Provinces of Nigeria. Therefore, there was the distribution of these government publications to schoolteachers, businessmen, merchants and so on. Indeed, this information booklet was widely circulated amongst teachers. For example, this copy of the booklet was the official copy of the Headmaster of the Olubadan Native Administration School at Oranyan, Ibadan in 1948.

However, it was also political propaganda seeking to counter the agitations of African nationalists. For instance, the map gave a graphical representation of places where the Chief Commissioner of the Western Provinces made several speeches. “The word ‘Self-Government’ looms large everywhere in Nigeria today”, the chief commissioner began his speech at a meeting of the Ado District council held at Ado-Ekiti on 15th of January 1948. As ‘an extract from a speech’, he made, reproduced in the public relations booklet, the regional administration responded to the increasing

demonstrations of self-determination by colonial subjects (The Western Provinces, 1948; 2). He continued (*Ibid*; 2):

'A great many of the people who talk about Self-Government never stop to think what it means….it is perfectly clear that Self-Government will only be achieved by the acceptance of more and more responsibility by Native Authorities. They are people best qualified to make their voices heard throughout the country'.

Therefore, embedded in this map was the discursive imagining of regional and local space in the late colonial period. The newly created regional governments were employing several "official" sketch maps, in constructing the cultural landscape as they engaged the public.

Although this map was hand-made, it emerged from the standard administrative maps improved by expanding technical surveying and scientific mapping. In 1946, the Directorate of Colonial Surveys (DCS) began mapping in British colonies (Balogun, 1989; Williams, 1964). In the same year, the British Royal Air Force (RAF) commenced aerial photography of the Nigerian landscape. Several of these early aerial photographs were at a scale of 1:26,000 and 1: 40,000 (Adebekun, 1986, 16). These aerial photographs were later the basis of map compilations used in producing several topographical map series in the last decade of colonial rule. The sales of maps by the colonial survey department also expanded. For example, general maps, topographical, geological and cadastral maps were available to the public (CO, 1947, 106).

The colonial representation of the economic landscape was undergoing several changes, but the dominant theme remained capitalist modernity (Lawson, 2007). The transport framework continued to be important in the conception of the colonial landscape. For example, the *Map of the Colony and Protectorate of Nigeria* illustrating the 1946 colonial report, a reprint of the 1940 map, had the railway prominently depicted by the usual thick black line across the Yorùbá landscape. In addition, the 1947 *Map of Nigeria* depicted the thick black line of the railway across the map face. This map, compiled and published by the Directorate of Colonial Surveys (DCS), was photolithographed and printed by the British War Office. It displayed the village of Iju,

which, as aforementioned, was the site of the Lagos Waterworks. Apart from landscape representation on the framework of modern transport and communication, as in the previous maps, the appearance of other colonial economic institutions began to emerge. For example, the 1940 *Agricultural Map of Nigeria* displaying a landscape of export and food crops (Scale 1: 3 Million).

Fig 4.9 below evoked an objective view through a reproduced focus on Yorùbáland. For example, the map title 'Western Provinces, Nigeria' suggests that the intended audience were residents of the southwestern provinces. In addition, the map scale presented as verbal and bar scales with the verbal statement showing 'One Inch [to] 30 miles' restricted the spatial extent of the landscape concerned. This limited spatial concern reflects the simple geometric layout. For instance, the map employed only two cartographic symbols. First, the linear symbolisation drew the viewer's attention to the natural and administrative boundaries that conveyed the geopolitical identity of Western Nigeria. In addition, there was the network of lines that commands the centre of the map face. Second, the point symbolisation labelled with the same typographical style and font instilled a regularity of visibility and sustained the interest of the viewer. The sameness and simplicity of the cartographic symbolisation evoked a sense of regional geography.

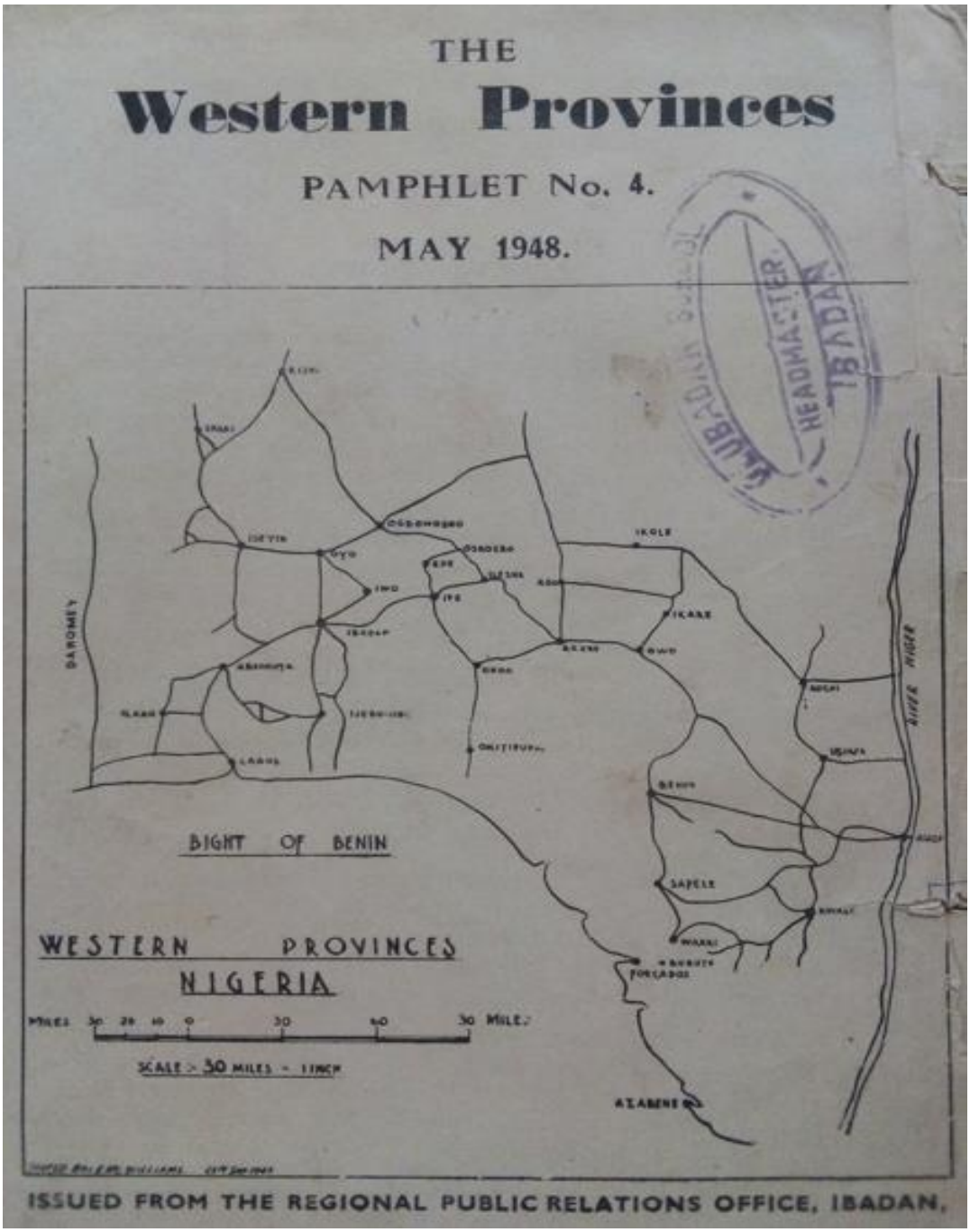


Fig.4.9 Western Provinces, 1948; Scale 30 Mile to 1 Inch; Source: Regional Public Relations Office (Ibadan: The Western Provinces, Pamphlet No.4, 1948)

The geographical landscape in Fig.4.9, like previous colonial maps, was an administrative landscape depicting basic cultural features. However, the coastline and Lower Niger River served as a locational outline for the geography of southwestern Nigeria. Only the towns and road networks are visible rather than the provincial

boundaries within Yorùbáland. The towns depicted were all provincial or divisional administrative headquarters. Consequently, these visual (re)presentations of the provinces suggest a conscious effort by the colonial administration to inculcate a regional image and cohesiveness. Besides, the omission of the provincial boundaries of Abeokuta, Ijebu, Oyo, Ondo, Benin and Delta made this regional image-formation more pronounced. The last two are non-Yorùbá provinces, but consisted some Yorùbá people, who became part of the newly created Western group of Provinces in 1946 (Crowder, 1966).

Unlike the maps of the Colony of Lagos, Yorùbáland Protectorate and Southern Nigeria in the previous sections, this map was (re)presenting a reorganised colonial administrative space. In addition, the road linkages that spread across the landscape similarly reinforced the graphic image of this geopolitical cohesion of Western Nigeria as a single administrative entity. Besides, the absence of administrative hierarchies of townships creates a sense of uniformity inducing regional imagery. The notion of regionalism evident in this graphical depiction of native administrative headquarters reflected the politics of the post-war period (Ayoade, 1985). Interestingly, the represented townships also evoked the basic frame of the urban geographies of Yorùbáland.

Fig.4.9 reflected the notion of spatial peripheries emerging in the postwar period. This visualisation of spatial peripherialisation reinforced the (re)creation of farm villages as marginal areas on the economic landscape (Sibley, 1995). For instance, cartographic marginalisation that was inevitable on small-scale maps had normalised the invisibility of rural villages. Nonetheless, the objective representation of the economic landscape held two contrasting cultural economic spaces (Blaut, 1970). A visible colonial economy, framed upon the towns and an invisible indigenous agrarian practice on which the sustenance of the towns depended. In the post-war period, these townships were not only centres of agrarian production but also consumption – a gradually increasing consumption of imported food products (Lugard, 1937). As Loomba (2005, 113) noted, "Capitalism coexists with or is 'articulated' with, these other modes of production, but this coexistence is structured by the dominance of capitalism, which therefore benefits from it". The production of space in small-scale colonial maps made the capitalist use of space prominent. Therefore, "the spatial arrangement of a city, a region, a nation, or a continent increases the productive forces" (Lefebvre 1979, 188) by which capitalism

expands through the provision of ‘commodities’ and ‘enterprises’ necessary for the attaining ‘civilisation’ as canvassed by colonial discourses of high modernism of the late 1940s (Scott, 1998).

Also, these “agricultural towns” (Goddard, 1965) of the landscape drew attention indirectly to the invisible farm village system. As Michie, (1987, 97) observed, “At some point the represented must come to stand for the unrepresented, the present for the absent”. That these towns are visible drew attention to their excluded satellite farm villages. As aforementioned, each town and its several satellite farm villages constituted an urban-rural place on the indigenous economic landscape. As the sustenance of these townships for centuries was through their urban-hinterland relations, which espouses the agrarian landscape, their farm-villages constitute hidden geographies on such maps as Fig.4.9. Hence, the reproduction of the landscape through small-scale maps of colonial cartography reinforced the territorial otherness ascribed to the indigenous farm village practice in colonial discourses.

However, state cartographic representations, the official geography of the colony, as I have shown, were a reflection of colonial capitalist rationalities (Radcliffe, 1996). Hence, this map, which subtly was doing the work of colonial propaganda, gives a firm geographic expression to a sub-national image that focuses on the prospects of urban-based administrative transformation while reflecting the hiddenness of the basic frame of the Yorùbá town-countryside relations. This hiddenness exemplifies modern administrative neglect of the rural development (Mamdani, 2018; Takés, 1964). In contrast, the colonial focus on townships inscribed through the N.A. headquarters on the maps reinforces the notion that “civilisation brings with its various forms of social service such as urban water supplies, health services, roads and education” (The Western Provinces, 1948, 4). Thus, instituting a modernist urban ideology synonymous with ‘civilisation’, capitalist development pushes the larger part of the N.A.’s satellite–farm villages, into hidden and empty spaces as visualised on small scale ‘administrative maps’.

Ibadan and Vicinity, 1955

The United States Army Map Service (USAMS) produced the Map of Ibadan and Vicinity (Fig.4.10) in 1955. The USAMS, a branch of the US Army Corps of Engineers,

had published several map series of West Africa during the Second World War (1939-1945) “based on previous map publications of the British Directorate of Military Survey and its predecessor, the Geographical Section, General Staff (GSGS)” (Bottoms, 1992, 12). These re-issued GSGS maps emerged from a wartime Anglo-American Map Agreement (Coll et al., 1958), serving military logistical planning and operational flight navigation. For instance, the United States during the early days of the war flew war supplies to British troops in the North African theatre of war through West Africa airspace.

After the war, US military mapping of the globe and West Africa continued and expanded. As documented, Fig.4.10 was part of the USAMS Series G504, portraying the urban space of Ibadan. Compilations of these maps were from re-issued colonial maps and aerial photographic data. The US Air Force (USAF) took some aerial photographs of Western Nigeria in the 1950s. For instance, Prothero (1954, 64) noted the availability of air photographs of Western Nigeria from the USAF, at a scale of 1: 60,000. Aerial-photogrammetric methods, increasingly used for large-scale mapping after the war, reflected in this medium-scale mapping of Ibadan (Balogun, 1985).

The city of Ibadan had a strategic position in the US military global framework. The city was increasingly becoming important economically, socially and politically in the decolonising decade. Economically, agriculture was still the mainstay of the economy and there were serious efforts to modernise the sector. In 1910, the newly established Agricultural Department of the colonial government was located in the city (Dennett, 1919). Earlier, in 1901, the nucleus of the Onireke European reservation, near the Onireke stream, commenced. In 1917, it became the centre of the second-class township in Ibadan (Nigeria Handbook, 1919, 98). Nonetheless, the prime European reservation of the colonial government and its establishment was located at Agodi Hill (Oyeleye, 2001). The city grew rapidly after 1939 when it became the headquarters of the Western Provinces of Nigeria. After 1946, more Europeans moved into the city as government and commercial functions expanded. In 1952 there was an influx of Africans into the ‘government reservations’ as new political changes became evident in the administrative space (Oyeleye, 2001, 284). In March 1952, the first post-colonial nationalist government emerged at Ibadan to administer the Western Region. These changes in the geopolitical

map of the administrative geographies of the colony increased the spatial consciousness of the colonial subjects.

The mapping of the colony using aerial photographs continued in the postwar period. For example, the No. 82 RAF Squadron "carried out a photographic survey" in the colony (CO, 1950, 84). In 1949, the 1:50,000 topographical map series commenced to replace the 1:62, 500-scale map (Harris et al, 1964, 228; Ogunlani, 1988, 23). Topographical map series began increasingly to portray the rural geography of Nigeria. Similarly, as aforementioned, the American military maps of the colony were re-issues of GSGS maps, but revised editions in the 1950s relied on new aerial information. There was a gradual withdrawal in the exclusive access of the British War Office to topographical maps in the late colonial period. Although there were still restrictions, there were efforts to increase topographic mapping for other purposes (Williams, 1964). In addition, the new topographical maps of the colony had a wider geographical coverage. For instance, the scale of 1:500,000, introduced in 1952, and the scale of 1:250,000 introduced in 1957 covered larger parts of the colony (Uluocha, 2008).

Similarly, there was the emergence of the preliminary sheets of the DCS Nigerian topographical maps of 1:50,000 (Harris et al, 1964) depicting some previously unmapped areas. Yet a restrictive policy governed the distribution of these 1:50,000 scale maps, in the era of the Cold War. In addition, the use of maps and mapping was increasingly integral to planning and management of the agricultural economy of the colonial state. For example, the colonial government reported that "Steady progress was made in the Western Region by the Cocoa Soil Survey and 2,500 square miles in Ibadan and Oyo Provinces were mapped" (CO, 1954, 40). On the other hand, there was regionalisation of the colonial state in 1954, which led to the reorganisation of the Nigeria Survey (Balogun, 1985, 348). In 1955, the Nigeria Survey became the Federal Surveys with branches in the regions, which now had their regional survey departments.

The cartographic representation of the colonial economic landscape had become diverse with the portrayal of other themes of capitalist modernity beyond transport and communication. For example, a version of the 1950 *Map of the Colony and Protectorate of Nigeria*, a reprint of the 1949 map, was devoted to a cartographic display of modern development. Indeed, "Development" was the sub-title of the Map Reference.

Highlighted on the landscape were locations of state agricultural development projects. Besides, there was an emphasis on the areal extent of forest reserves and mining areas in Western Nigeria. Nonetheless, the 1951 *General Map of Nigeria* had the thick black line portraying the railway amid the several red-coloured depictions of all-season roads.

These economic themes appeared in maps other than the standard administrative maps. In 1955, the Federal Surveys produced a map titled '*Ijebu Province and Colony III*'. This medium-scale map of 1:62, 500 or One Inch to One Mile "Shewing the density and age of cocoa" was one of the earliest applications of medium-scale cartographic mapping to a specific part of the colonial agricultural economy. The map of Ijebu Province showing cocoa farmland was part of the cocoa scheme of the Nigerian Marketing Board (Nigeria Cocoa Survey, 1946). However, like the previous large and medium-scale colonial maps, it was largely inaccessible to the public. Therefore, the Western-educated public in the 1950s could only access the small-scale geographical maps as their means of visualising the colonial economic space. On the other hand, the availability and influence of these small-scale colonial maps were crucial during the decolonising decade when emerging African nationalists were becoming fairly map conscious in the political-economic governance of the colonial state.

The vertical perspective in Fig.4.10 evoked the naturalness of depicted landscape. For example, the map frame of darker outer and thin inner neat-line presented a synoptic spontaneity of the urban space. In addition, the directional arrows imparted a sense of geographical action on the landscape. The geometric representations instilled an ordered landscape through simple patterns. For instance, the cartographic production of space employed different lines, shaded shapes and pictograms to express the details of an urban landscape. Geographical place-names, labelled by various typographical forms, inscribed a cultural landscape. However, apart from the use of 'standard' Yorùbá orthography, there were some Yorùbá words in the American version of anglicised orthography. As indicated, there was the use of '*Aremaw*', instead of Aremo. This suggests that the American mapmakers partly choose to use indigenous orthography employed on British-made maps of Yorùbáland after the late 1890s (See Fig.4.2 and Fig.4.3). Consequently, the map evokes a sense of sparsely depicted viewpoint of indigenous urban geography.

Nonetheless, the sparseness of the map layout creates simplicity of space. This contributed to the aura of an objective view of the urban landscape.

The depicted urban landscape mirrored selected natural and cultural features. Two natural features evident on the landscape were topography and hydrology. These features contributed to the structural nucleus of the city. For example, the topographic character of the city reflects through a grey shading of the hilly areas while showing the river valleys that cut across it. From the central part of the landscape, the hills extend towards the northwest into the area of the railway station and towards the northeast where Agodi hills are located. In addition, there was the depiction of Ogunpa, the major river, which drains the city. Kudeti stream, River Ogunpa's main tributary, with its sub-tributaries also appeared on the landscape. The portrayal of the physical characteristics of the city suggests a military cartographic perspective of the terrain as a tactical and strategic resource. However, there were also cultural features portraying administrative, economic and social facilities. As illustrated, there was the railway on the northwest corner of the landscape, while there was the portrayal of different classes of roads. Indeed, the viewer can identify three named roads; Oyo, Amunigun and Ijebu Bye Pass, all of them leading to the railway station revealing the foundational character of macadamised roads as 'feeding transport channels' for the railway system.



Fig.4.10 Ibadan and Vicinity, Scale: 1:25,000, 1955; Source: University of Texas Perry-Castaneda Library (Washington DC: US Army Map Service, 1955)

Fig.4.10 served a military audience but the prominence of the transport network of the city – the railway and the major roads emphasised the strategic interest in its economic rather than the administrative space. For example, the omission of the newly designated government reservations might suggest an anti-colonial attitude of the mapping agency (USAMS) but it did not as well encourage or privilege 'African' nationalism in a decolonising cartographic space of the decolonising decade. This urban centre, regardless of its administrative function in 1952, was an agricultural town with over a thousand farming villages in its immediate rural hinterland (Akinola, 1963; Goddard, 1965).

Cartographic information on this large-scale township map suggests the connection of rural towns and villages through 'directional arrows'. For instance, the direction to Lalupon, a small town, labelled as 17 kilometres away from the city, to the northeastern edge in Fig.4.10.

Although a foreign military mapping, this cartographic representation of an African urban landscape could trace its genealogy from British colonial maps (USAMS, 1956). Nevertheless, it did not have a corresponding cartographic scale representing the Ibadan agricultural landscape. The AMS produced in the 1950s several 1:250,000 scale topographic maps showing a larger geographical coverage of the Yorùbá rural landscape. In a 1956 map titled '*West Africa (Nigeria) – Ibadan*' (NB-31), a complement to the 'Ibadan and Vicinity' (Fig.4.10), there was a depiction of the rural landscape around the city. Nonetheless, the geographical coverage reflected the modernist viewpoint of minimal representation (Kennedy et al, 2016). For example, around the northeastern Ibadan hinterland, Lalupon and Erunmu were the only settlements depicted. In spite of their late colonial production, these maps of the American military possibly reproduced and reflected earlier British War Office stereotypical representations of Yorùbá rurality. For example, Guggisberg (1911, 58) noted, "In the case of small villages, the names of which will be omitted on the 1:250,000 and 1:500,000 maps eventually compiled from the standard map, it should be stated whether there is any important reason for not omitting them". Hence, only the standard topographical maps of 1/125,000 and 1/100,000, mainly for military purposes, did some farm villages appeared.

The notion of spatial peripheries became emboldened visually as large-scale urban maps referred to rural settlements that remain consigned to invisibility or partial visibility (Driver, 2012; Sibley, 1995). I contend that the cartographic marginalisation of the rural landscape contributed to the marginalisation of the farm village practice. There are two forms of marginalisation evident in cartographic representation - invisibility and stereotyping (Lee, 2018). The silence on maps of rural settlements made the farm village practice invisible. For example, the aforementioned 1956 AMS map showing northeastern Ibadan hinterland was almost devoid of rural settlements. Besides the functions of rural settlements, either as residential or farming villages was indistinguishable. In addition, the use of directional arrows unintentionally helped

reinforce the notion of backward agrarian systems since large and medium-scale maps of rural areas were either unavailable or inaccessible (Boelen et al, 2019). As indicated, the 1955 AMS map depicted Lalupon by an arrow. There was no comparable large or medium-scale map of Lalupon in 1955 to that of Ibadan in Fig.4.10. The othering of African agriculture reflects stereotyping on maps (Sibley, 1995). For instance, on topographical maps, what indigenous agrarian philosophies would have recognised as farm villages were 'isolated buildings' rather than 'farm houses'. This reflected the town-village relations as anachronistic in modernist economic thought.

This cartographic marginalisation symbolises the emergent social practices that revealed disconnection between the urban and rural centres consequent to the colonial economic encounter. This capitalist encounter had resulted in the territorial stigmatisation of the rural villages (Wacquant et al, 2014). For example, the notion of urban-rural migration that kept farm villages operational was receding in larger towns. In addition, there was an increasing migration of the younger population from rural and agricultural environments. The Colonial Government (CO, 1958b, 9) reported, "there are traces of unemployment in urban areas owing to the drift from the rural areas of unskilled workers and semi-literate youths who disdain manual labour". These emerging spatial perceptions of economic production amongst colonial subjects reinforced the need to transform rural areas. Therefore, there was another dimension to the suggestion of rural villages in the depicted urban landscapes. They reflect the 'modernist thinking' on restructuring the rural 'Other' concerning the role of agriculture and the agrarian population in the industrialisation policy of the 1950s (Boelens et al, 2019). As Brandt and Bruentrup (2012, 19) observed, "the promotion of agriculture was seen as secondary or unproblematic according to the motto: Industrialisation is the best policy for agricultural development, since it strengthens demand for agricultural produce and brings modern concepts and thinking to agriculture".

4.2.5 State Cartography and Hidden Geographies of the Agricultural Landscape

This socio-cultural history of state maps reveals that the taken-for-granted territorial representations of Yorùbáland are subjective practices regardless of its scientific framework and claims of objectivity, transparency and accuracy (Harley, 1988a). These

representations of the territorial space during colonialisation, which became material evidence of physical reality, are neither neutral nor trouble-free. They are not neutral because they are constructed based on capitalist ideologies. For example, the visible representation of the town-village relation on unofficial maps was partly due to commercial opportunities. In addition, there was the consistent visual privilege accorded the railway system on official maps as an economic facility. On the other hand, they are problematic because they exclude other knowledges vital to the actual colonial geographies (Harley, 188b; Sibley, 1995). For instance, the hidden geographies of the farm villages – satellites of the urban centre that constitute indigenous geographical sense-making of the agricultural economy. These farm villages were the backbone of the annual statistics of agricultural exports in colonial reports for Western Nigeria. Hence, these official maps are not *incorrect representations*, but *partial knowledges of space*, reflecting the logic of capitalist modernity as *absolute pictures of space*.

These colonial mapping processes, evident in the production, use and circumstances of state maps, shaped the official geographies of the economic landscape. The state production of small-scale maps dominated the visual imagining of space. The small-scale administrative map became the driver of popular colonial geographies, although there were large and medium-scale state maps. For example, there were the production of the 1: 1,200 large-scale maps of European Reservations in Lagos, Ibadan, Abeokuta and other places by the Nigerian Survey (CO, 1947). This initiated the urban bias in post-colonial cartographic mapping (Yoo, 2014). In addition, there was the production of medium-scale maps of 1: 62, 500 but mostly for the Geological Survey. These medium-scale maps catered for areas of mineral ore potential (Uluocha, 2008).

However, as I have hinted above, the few medium-scale topographical maps were inaccessible, for they were strategic devices and exclusive preserves of the British War Office (Collier, 2011). Hence, the accessible, small-scale administrative maps of the Colonial Office became the basis of colonial geographical imagination of the economic landscape amongst the populace – both European and Western-educated colonial subjects. Indeed, taken together the accessible, unofficial and official maps reflected a trend of small-scale maps that spiked in the inter-war years but declined thereafter. The above-mentioned, selected administrative maps revealed this trend – the scale of 1:1, 267,

200 in 1895; 1:4 million in 1907; 1:3 million in 1939; and 1:2 million in 1948. Another challenge of these administrative maps was map revision. For instance, the 1:250,000 produced in 1924 were out of print in the 1930s and only revised in the late 1950s and 1960s. Therefore, the administrative, political and economic reasons influenced the visual imagining of space.

State geographies became the popular geographic imagination through several channels of use (Gregory, 1994; Radcliffe, 1996). For instance, the selected maps explored in the previous sections were integral to the narrative of space in the Journals of the Royal Geographical Society, Colonial Reports, the Nigeria Handbooks and Colonial Public Relations. The lectures of the RGS played a considerable role in spreading the geographical imagination of West-Central Africa since the 1830s. Since 1907, the colonial reports served the geographical knowledge of the political, administrative and business classes in Britain and the Colony. The Nigerian Handbook, although not a direct government publication, was a popular discursive material with the business class in Britain and Nigeria. For instance, the Nigeria Survey has consistently advertised the availability of maps for purchase through the editions of the Handbook. These documentary avenues were means of accessing the administrative maps and disseminating the image of the colonial landscape.

Therefore, these maps stimulated and formed the visual imagining of the landscape for the growing number of Western-educated colonial subjects. For example, in 1929, several geography exercises at Government Teacher Training College, Ibadan included drawing maps copied from the only available and accessible small-scale administrative maps. Similarly, a 1949 geography notebook of a student-teacher of Elementary Teacher Training College, Otta had several maps of Nigeria copied from these government cartographic sources. Again, schoolteachers who prepared lesson notes continually copied these maps to illustrate geography lessons (See Fig.4.11). Likewise, the accessible small-scale administrative map became the mediating device of spatial thinking in economic discourse for the growing Western-educated class in the postwar period. As illustrated, Fig.1.1 was a visualisation serving agricultural discourse of economic crops in the Nigerian Farmers Diary of the 1950s. This state cartographic gaze reinforced the importance of cash crops to the sustenance of government but not to the sites of

production. This hiddenness of indigenous agricultural geographies ensured the asserting of only the capitalist viewpoint of the agricultural landscape.

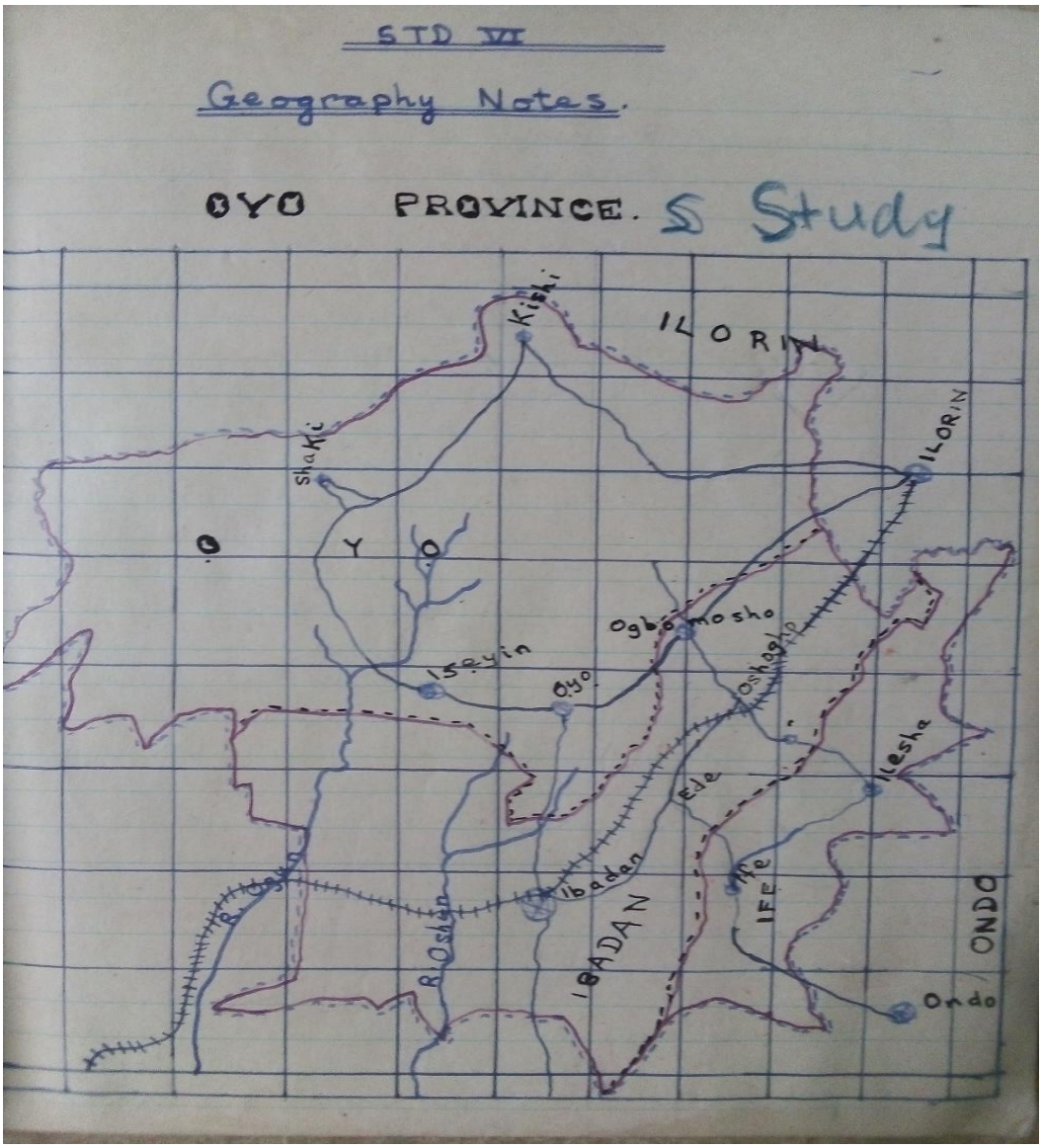


Fig.4.11 Map of Oyo Province in a Teacher's Geography Lesson Notes, c.1950 (Source: Private Archive)

Therefore, the internalised world picture affected the emerging ways in which the governing class and Western-educated public started thinking about the landscape (Harvey, 2005b; Olwig, 2009). This modernist cartographic way of seeing and knowing had effects on social practices. That the rural landscape became objectified, partially

visible, set in distinction to the urban space and marginalised, initiated a general partiality towards its representation and material development. The continuous reproductions of these colonial landscapes visually reinforced the discursive denigration of the age-old indigenous agricultural practice as fixed, unchanging, unprogressive and unworthy of consideration under modern conditions. The Lagos colonial government opined in 1898, "As land is plentiful it will be possible to grow economic plants in such quantities as will form object lessons to the natives, and thus supply a want which has long been felt" (CO, 1899, 10). The lack of intensive economic crop production was equivalent to backwardness (Boelens et al, 2019). Hence, the scientific maps of state cartography ascribed the identity of backwardness to the traditional agricultural landscape. As Wacquant et al (2014, 1278, original emphasis) argues, "territorial stigmatization is not a static condition, a neutral process, or an innocuous cultural game, but a consequential and injurious form of *action through collective representation fastened on place*".

Consequently, the traditional method of agricultural land use became a target of modernist intervention in the process of civilising and modernising the indigenous agrarian economy. There was the need to tutor the farming population towards producing a rational agricultural landscape. Yet an obvious problem was the crucial lack of scientific knowledge in a visible form about indigenous land-use practices that needs modernising. The indigenous cognitive representation of the farming landscape was irrelevant in this modernising process. The colonial agricultural policy sought to produce geographical knowledge of land use systems, to instil a modern, capitalist economic rationality upon the agricultural landscape through the minds of the colonial subjects. Consequently, there was deployment of the scientific map as an agent of social control and agrarian reform through spatial regulation of the economy (Cosgrove, 2003). It was modernising an agricultural economy that was defined by the creation of a space of difference.

4.3. The Power of Map: Scientific Cartography, State Maps and Development Discourse

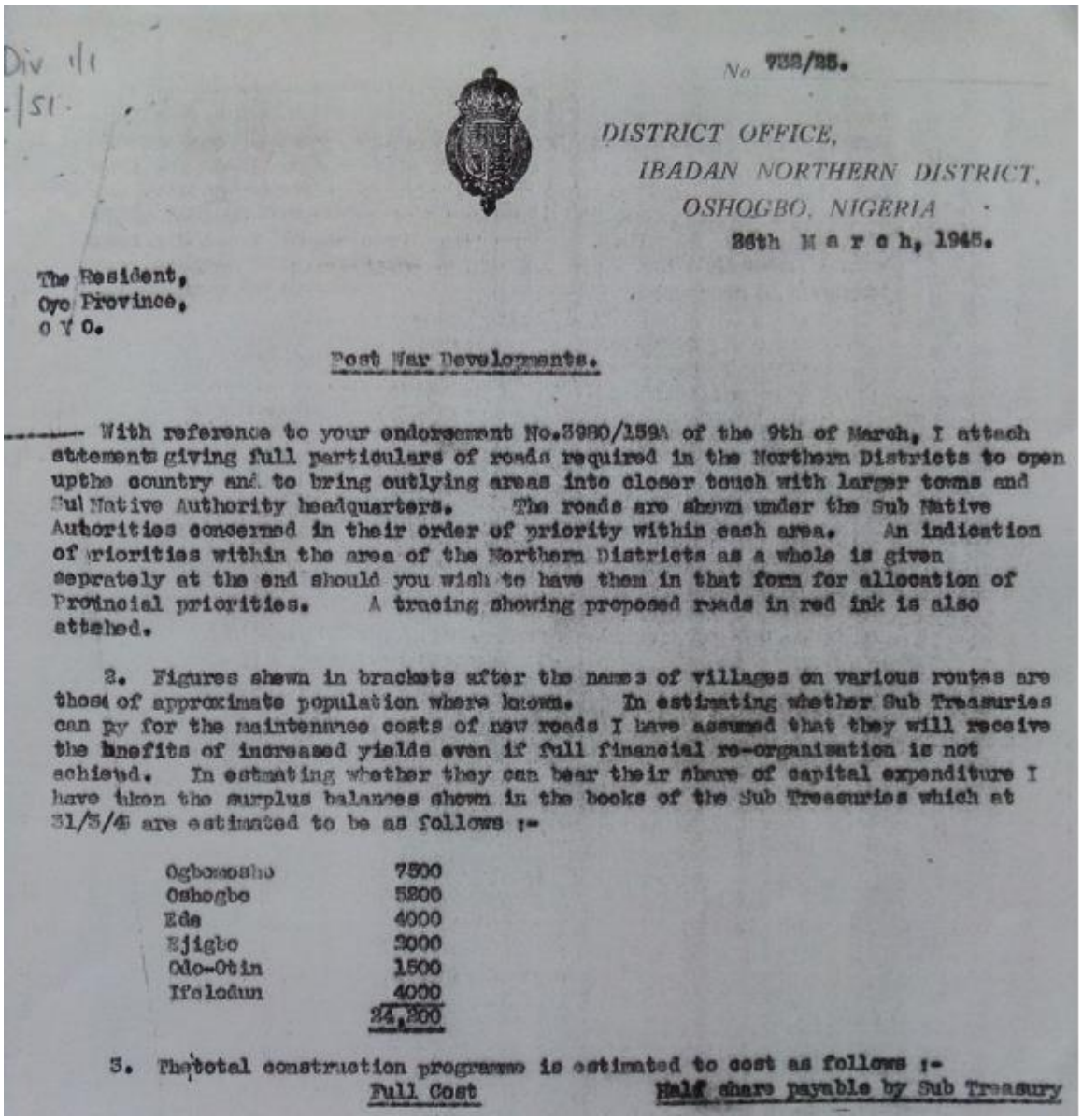
Cartography was an integral practice of development discourse of post-Second World War that attempted to engineer modernist transformation (Crampton, 2010; Kippler,

2014). This involved the deployment of different discourses – 'Development' – through another discourse – 'Cartography' (Brouwer, 2019). I argue that scientific cartography as a cultural frame of modernist rationality was a power-knowledge embedded in the governing of space. The denigration of indigenous agrarian methods was an aspect of the colonial agricultural narrative that induced the need for state-led transformation (Scott, 1998; Sibley, 1995). Small-scale state maps, with suppressed information of rural areas owing to socio-technical constraints, aided these biased assumptions of African agriculture.

Indeed, different types and scales of official and unofficial maps reinforced the bias. This institutionalises the spatial imaginary of ordering the agricultural landscape (Gregory, 1994). Hence, cartographic discourses were crucial to the positioning of development discourse that sought to engineer social and technical change on the agricultural landscape (Scott, 1998). These cartographic discourses formed part of the development narratives that legitimised the need to reform the agrarian Other through spatial ordering on the landscape (Sibley, 1995). Maps were entrenched in defining problems and suggesting solutions for the agricultural landscape (Kippler, 2014). Hence, how did cartographic reasoning feature in the colonial development discourse of agriculture? In what ways was cartographic rationality deployed in the post-colonial development discourse of modernising the Yorùbá agricultural landscape?

4.3.1 Maps, Colonial Geography and the Agricultural Landscape: Cartographic Reasoning in Colonial Development Discourse

In 1945, the British parliament passed a Colonial Development and Welfare Act, which aimed at improving the socio-economic conditions of colonial subjects (CO, 1947, 24). I argue that colonial development discourse that sought to improve or modernise the agricultural landscape embedded the cartographic text. A fundamental challenge of the world at the end of the Second World War (1939-45) was widespread food shortages (Steel, 1948). This situation led to a focus not only on the potential of food production but agricultural development in tropical Africa. However, there were several problems associated with tropical agriculture in Africa. For example, there was the challenge of road communication into agricultural-producing areas (See Fig.4.12).



No 752/25.

DISTRICT OFFICE,
IBADAN NORTHERN DISTRICT,
OSHOGBO, NIGERIA
26th March, 1945.

The Resident,
Oyo Province,
O Y O.

Post War Developments.

With reference to your endorsement No.3980/159A of the 9th of March, I attach statements giving full particulars of roads required in the Northern Districts to open upthe country and to bring outlying areas into closer touch with larger towns and Sub Native Authority headquarters. The roads are shown under the Sub Native Authorities concerned in their order of priority within each area. An indication of priorities within the area of the Northern Districts as a whole is given seprately at the end should you wish to have them in that form for allocation of Provincial priorities. A tracing showing proposed roads in red ink is also attached.

2. Figures shewn in brackets after the names of villages on various routes are those of approximate population where known. In estimating whether Sub Treasuries can py for the maintenance costs of new roads I have assumed that they will receive the benefits of increased yields even if full financial re-organisation is not achieved. In estmating whether they can bear their share of capital expenditure I have taken the surplus balances shewn in the books of the Sub Treasuries which at 31/3/45 are estimated to be as follows :-

Ogbomosho	7500
Oshogbo	5200
Ede	4000
Ejigbo	2000
Ido-Otin	1500
Ifelodun	4000
	24,200

3. The total construction programme is estimated to cost as follows :-

Full Cost — Half share payable by Sub Treasury

Fig.4.12 Response of the Ibadan Northern District Officer to the Resident, Oyo Province; 26 March 1945 (Source: National Archive, Ibadan, 2022)

The fundamental challenge of agricultural production was associated with the land use practices of the colonial subjects (Britannicus, 1948). Agrarian land-use systems became one of the most important *object* of colonial development discourse in the post-war period. In the mid-1940s, the colonial administration had conclusively decided that the problem with Yorùbá agriculture, like other indigenous African agrarian systems, was the agronomic practice of fallow and shifting cultivation. For example, the colonial report

of 1946 observed that: "With [the] increase of population, and consequent reduction in size of farms necessitating a more intensive form of farming, the weaknesses of these traditional systems of farming—particularly the lack of manuring and inattention to the dangers of erosion—become apparent" (CO, 1947, 37).

Shifting cultivation became the composite mode of identifying traditional system of agriculture (CO, 1949, 82). Morgan (1959, 134) observed, "'shifting cultivation' has been regarded by some writers as an all-embracing term for indigenous systems of tropical agriculture and by others as a term applied to only one system". Klopstock (1950, 169) argues that: "the decline in mortality rates would give little cause for anxiety had it been accompanied by far-reaching changes in cultivation methods. African agriculture has always been characterised by the wasteful practice known as shifting cultivation". Indeed, the colonial government (CO, 1958a, 42) noted that in the Western Region of Nigeria, "Shifting cultivation, increase of population, hunting rights, and the tremendous increase of markets for cash crops combined to result in there being virtually no unclaimed land". This traditional land use practice was a challenge to economic modernisation.

The visualisation of this land use practice was crucial to defining this problem of underdevelopment in African agriculture. Visual practices contributed to the framing of the cultural difference in this agricultural land use in the postwar period. The visible landscape of African agriculture manifested and reinforced this idea of weak, disordered agrarian economy.

> The appearance of agricultural landscapes resulting from shifting cultivation and bush fallowing is, to Western eyes, a most untidy one. Small irregular patches of imperfectly-cleared forest contain a mixture of crops and weeds in what seems to be entirely random disorder. The riot of vegetation and tangled greenery of inter-cropped plants ….presents a well-nigh chaotic scene when compared with the regimented rows of wheat, maize or vegetables on European and North American farms (Floyd, 1969, 174).

The traditional land use practice, including the organisation of farm-villages, became the "*Development Other*" (Kippler, 2014; Lawson, 2007). The Other's knowledge was backward. Hence, there was a removal of challenges of Yorùbá agrarian practices from "the political and cultural realms" and recast in technical terms of the "more neutral

realm of science" (Kippler, 2014, 10). Neither the imposition of intensified cash crop farming on indigenous farming systems since the 1880s nor the gradual incorporation of these agrarian economies into the world capitalist system of economic production was the problem but the 'weakness' of indigenous agronomic practices.

Cartographic reasoning was integral to describing this traditional agricultural landscape (Gregory, 1994). Several geographers interested in colonial development were concerned with geographic information on agriculture. Hence, there was cartographic anxiety towards the full knowledge of this subaltern agrarian system and its inherent agricultural disorder. Cartographic reasoning was necessary to unveil the spatiality of African agrarian land use. This scientific reasoning drew attention to the lack of geographical information on colonial geography and instigated the geographical knowledge production on land use practice. The lack of geographical knowledge highlighted the issues of geographical pattern of traditional agricultural land use (Gilbert and Steel, 1945), the form of geographical knowledge available (Steel, 1948) and the lack of maps to support agricultural statistical collection (Prothero, 1955).

The lack of objective knowledge of the physical pattern of the African agricultural landscape was a challenge in colonial development discourse. Geographers identified the need for information on the problem of the geographical pattern and structure of indigenous African farms. For example, Gilbert and Steel (1945, 121) noted that available information on agricultural land use from the colonial administration was in no way appropriate to solve emerging colonial problems of agriculture. They observed that: "such material as is available is seldom in a geographical form or capable of any ready geographical interpretation" (*Ibid*, 9). They showed that census (population statistics) without supporting cartographic information was insufficient. Hence, "the colonies are far too full of examples of schemes that were started without adequate preliminary geographical and sociological investigation" (*Ibid*, 122).

The form of geographical knowledge available was crucial to addressing the issue of colonial development. Before the Second World War, the visual imagining of the agricultural landscape, as I have shown above, relied on small-scale administrative maps. However, the pattern of agrarian land use, which became a particular concern of tropical agriculture, required large-scale maps. For example, Steel (1948, 30) observed that:

Despite the valuable work done by geologists, agriculturists, foresters, and may others, there remain enormous gaps in our knowledge of the physical conditions and economic resources of most colonial territories. The geographer especially finds himself at a loss for data relating to land use of the type that in more developed countries we take, perhaps, too much for granted……. Data expressed in cartographic form are particularly lacking, and nothing in the nature of land-use maps exists. No one knows accurately what proportion of the land remains under virgin forest, or how much is given up to permanent crops, or even what is the usual length of the fallow period on the food farms where 'shifting cultivation' remains the main system of native agriculture. Were more of this information collected and readily available, the work of food missions and economic development committees of to-day would be greatly facilitated.

The lack of maps to support agricultural statistical collection also influenced geographical knowledge production of the colonies. This lack of geographical information about African agriculture was evident when the United Nations agencies (1949-50) requested information on land use in Nigeria to compile information on world agriculture (CO, 1954, 33). This request led to the colonial administration attempt at intensifying information gathering on agriculture. The first Nigerian Sample of Agriculture occurred between 1950 and 1951 (CO, 1954, 44). Prothero (1955, 197) observed that considering the dearth of basic information on agriculture "the Nigerian Sample Census of Agriculture marked a much-needed step in the right direction, since it was the first overall attempt to accumulate statistical data relating to land use and agricultural production". Nonetheless, as Prothero later examined, the unavailability of maps and mapping made the census less successful. Therefore, the 'absence' of rural geographical knowledge led scientists to seek more information. Part of the problem of dearth of information, Buchanan (1953, 303) observed was that serious and intense geographical studies of tropical agriculture began only after the war.

a major misfortune that information on the spatial aspects of Tropical African agriculture, on the distribution of the major crop assemblages and of cash and subsistence economies, should be so inadequate and that, so often, teaching should have to depend on the essentially non-geographical statements given in territorial handbooks or departmental yearbooks.

Therefore, an intensification of geographical knowledge production on different aspects of colonial agriculture began in Nigeria. These knowledge productions were by and for academia, governments and international organisations. Specifically, these geographical discourses of indigenous land use employed maps in their arguments and explanations of the African agricultural landscape. For instance, Keith Buchanan and William Morgan, two British geographers at the University College Ibadan, described and explained the agricultural economy of Southwestern Nigeria with the aid of maps.

Buchanan's 1953 mapping of land use focused on the Western Region of Nigeria (Fig.4.13). This land-use mapping elaborated on a much-generalised spatial impression about the agricultural landscape of Western Nigeria in an earlier introductory essay in the *Economic Geography* (Buchanan, 1952, 309). He observed in the subsequent article of 1953 that:

> At the same time, this dearth is not absolute and especially in those areas with an economy based on perennial tree crops and where the agricultural economy has attained a certain measure of stability it is possible to build up, from scattered published and unpublished statistics supplemented by field traverses, a broad picture of the land (1953, 303).

Thus, the cartographic anxiety among colonial geographers to make the land use pattern legible drew attention to the rational difference between the agricultural practice of cash crop farming and food crop farming. This difference would later have an impact on the reshaping of indigenous agriculture. A good number of Buchanan's students, within a decade, would become the economic planners and bureaucrats of the Western Nigeria Government (Nigeria Yearbook, 1953, 62-67). This pioneering effort in producing a land-use map of Yorùbáland revealed a lesser generalised landscape with diverse and richer characteristics of the agricultural economy. Nonetheless, Fig. 4.13 was a landscape influenced by the characteristics of the biophysical environment.

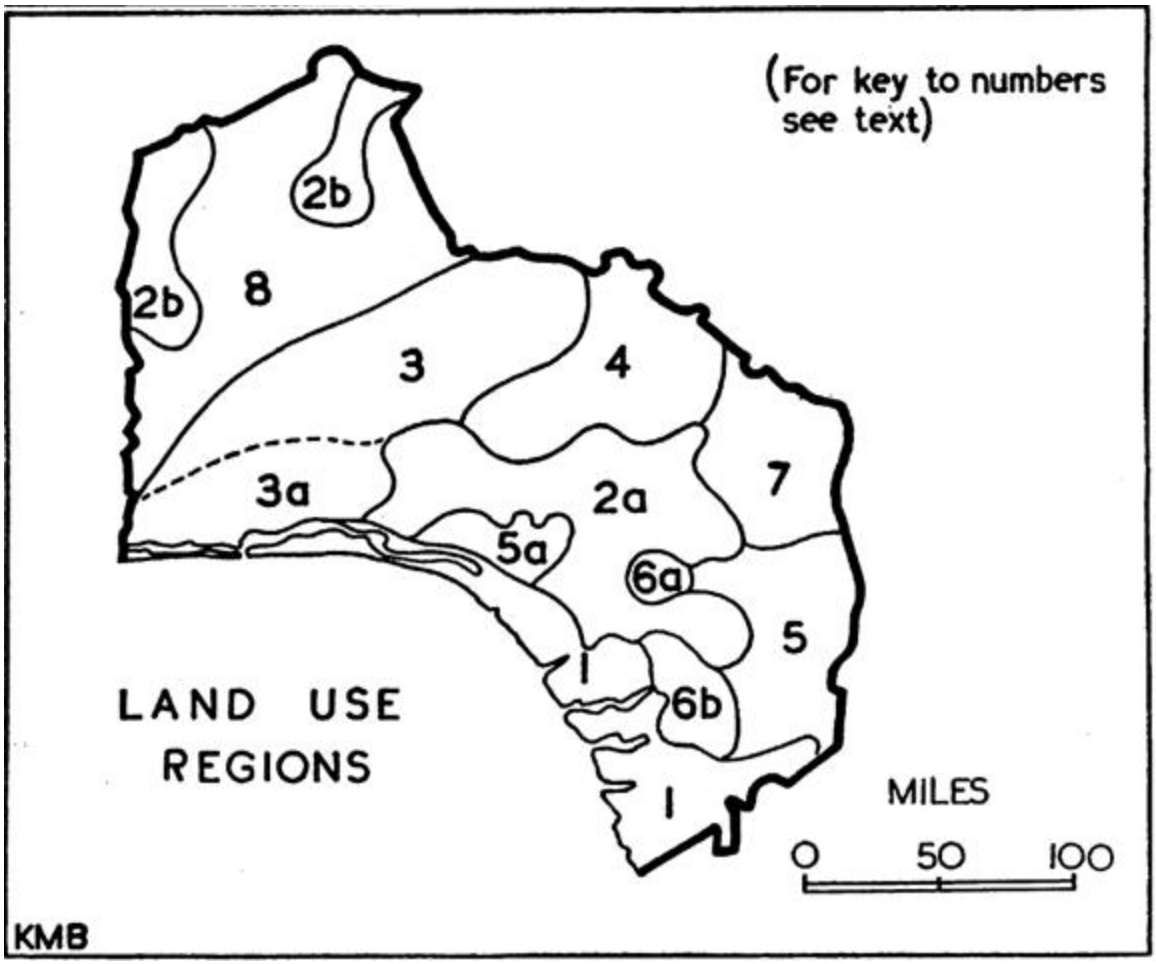


Fig.4.13 The Land-Use Regions of Western Provinces of Nigeria.
Key[listed in the original text]: 1. Coastal Swamp Region; 2. Forest Regions; 3. Cocoa Belt; 4. Dry Forest Region of Northern Ondo; 5. Eastern Palm Belt; 6. Benin-Warri Rubber Region; (a) Small-scale plantation; (b) Larger plantations, with some non-African enterprise; 7. Dry Forest Region of Northeast Benin; 8. Dry Belt of Oyo (Source: Keith Buchanan, 1953)

Similarly, Morgan's 1959 examination of the agrarian landscape of Southwestern Nigeria drew attention to the European influence on cash crop cultivation (1959a). However, Morgan's (1959a) examination of cocoa cultivation from the Lagos seacoast to central Yorùbáland reflected the irregular land use pattern of the indigenous agricultural landscape. He observed that:

the forests were replaced by a landscape of fallow shrubs, small wood lots, mixed cocoa and kola plantations and farmlands divided by densely forested valleys ([Fig. 4.14]). Dense settlement concentrated

on the fertile ilepa clays of the hill tops. As old areas declined in productivity the cocoa landscape advanced east-wards and south-east wards (Morgan, 1959a, 57).

Fig.4.14 reveals the irregular farming landscape without "seeing" or recognising the indigenous agricultural practice of the farm village. For instance, the 'compounds' within the woodland are essentially farm-villages. Although the spatial discourse of colonial development sought to identify the difference in the agricultural economy, it did not take constructive cognizance of the spatial dimension of the indigenous agrarian systems. Nevertheless, Morgan's (1959b) exploring of agriculture in Southern Nigeria in *Economic Geography* drew attention to the confusing use of the term 'shifting cultivation'. He explained that Yorùbás had "produced communities of town dwellers depending on rotational bush fallow cultivation instead of on more primitive shifting methods" (1959a, 52). In addition, he drew attention to divergent views concerning this African field method and its 'unplanned appearance'. Thus, Morgan observed, "some have concluded that the methods of tropical cultivators are well adapted to the 'natural' (especially the soil) conditions, others have described them as wasteful and in need of 'reform' " (Morgan, 1959b, 138).

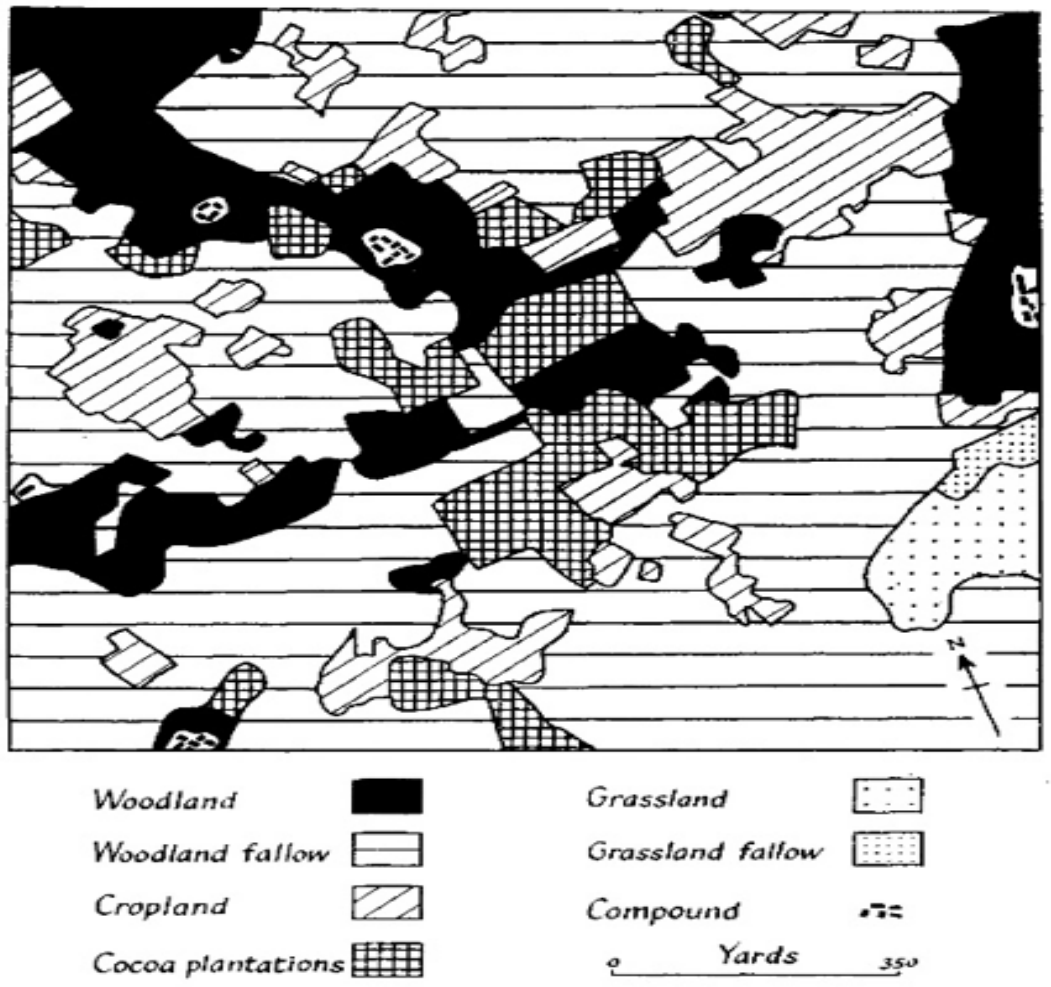


Fig.4.14 Land Use element in the Cocoa Belt near Iwo (Source: William Morgan, 1959a)

Therefore, a *discursive formation* on African agriculture arose during the early post-war period (Graham, 2005; Loomba, 2005). I argue that colonial cartography was a crucial visualising practice in this discursive formation. Problems of agrarian land use identified in African agriculture are diverse. In *Africa: A Study in Tropical Development*, Dudley Stamp (1953) argued that future development of African agriculture pays attention to the entwined relationship of soil, climate, vegetation and agricultural systems. This meant mechanical cultivation, bush clearance, and soil erosion are issues of concern for reshaping African agricultural systems. Other geographers and scientists drew attention to land tenure and its effect (Floyd, 1969). Yet other development experts emphasised cash crop cultivation as the fundamental challenge to indigenous agriculture (Klopstock, 1950). Nonetheless, visualisation was essential in these discussions of underdevelopment

in African agriculture as they reflected matters of irregular fields (Floyd, 1969), farm sizes (Grigg, 1966) and the acquisition of cartographic information (Moss, 1959).

Land tenure systems were responsible for fractioning and fragmentation of farm holdings, which were obstacles to more rational utilisation of farmlands. As aforementioned by Floyd (1969), irregular fields' highlighted chaos, untidiness and randomness, which evoked an image of underdeveloped indigenous agricultural system. This image of the irregularity of African farms had emerged before the Second World War. For example, describing cocoa farming in the Gold Coast [Ghana] Dudgeon (1922, 49) observed, "Native plantations are for the most part formed of irregular lines of trees , generally planted too closely. The evil effect of this does not become apparent until the trees attain a large size….The distance at which cocoa trees are planted by the native is roughly from 7 to 10 feet apart, whereas that recommended for plantations in the West Indies and Ceylon varies, with the quality of the soil and the elevation, from 12 to 15 feet". Again, he drew attention to the agronomic origin of the spatial riot on African farms,

> The native mode of growing cotton is in combination with a number of other agricultural crops, the seeds of all being mixed before being broadcasted in a field, which has been lightly tilled. Cotton sown in this manner is permitted to yield crops for two seasons, but the second crop is generally much inferior. Owing to this irregular manner of planting, the amount of cotton available for use is small, and is nearly all absorbed for the supply of the native looms (Dudgeon, 1922, 33)

These African farms were in sharp contrast to the large rectangular fields of American and British farms (Floyd, 1969). For Klopstock (1950, 174) this, "lends support to the view that native agriculture is unable to adapt itself to the requirements prerequisite to its survival".

Studying these problems of land tenure to proffer solutions required understanding these land-use patterns. A particular challenge was farm sizes. For example, Grigg (1966, 216) observed that

> Less is known about farm sizes in Africa than in any other part of the world. ….. [w]e must rely on sample studies and estimates of average size of farm. It must also be borne in mind that African customs of tenure

are very different from those of Europe, and they increase the difficulty of defining a farm. African concepts of land tenure often relate to the use and not the possession of land; and although individualization is increasing throughout much of the continent, both ownership and operation are often communal. An agricultural holding will be operated not by an individual but by a family; hence comparisons of family farms must take into account the differences in the size of families. Further problems arise from the distinctive agricultural practices of parts of the continent.

The small farm sizes of African farms were a clear impediment to the development of cash crops or economic plants (Moloney, 1890). For example, regarding cocoa farms, Dudgeon (1922) observed, "This is an important consideration in British West Africa, where native plantations range in size from a few trees to about five acres in extent, the average being perhaps about a hundred trees, or, roughly, one tenth of an acre". Similarly, the Nigerian colonial government (CO, 1939, 34) noted, "There is also another limiting factor in the production of export crops, when each holding is as small as it is in Nigeria, namely that most of the tropical export products need treatment after harvesting, or organised marketing, which are beyond the peasant' powers".

To unravel these problems of land use required detailed geographical knowledge of the agricultural landscape through the acquisition of cartographic information. This challenge of African agrarian systems drew attention to cartographic production (Harrison-Church, 1951), cartographic application in agricultural development (Steel, 1948) and the effect of map design on land use (Moss, 1959; Prothero, 1954). Colonial geographers drew attention to the lack of large and medium-scale maps, a consequence of the disorganised colonial production of maps, which contributed to the challenge of providing an accurate picture of indigenous farming systems. For example, R.J. Harrison-Church (1951) asserts in his book '*Modern Colonisation*' that the Colonial Office in Britain neglected the mapping of the Colonial Empire. He argued that the culpability was not that of the Colonial Survey Committee nor of "the understaffed and ill-provisioned survey departments in the colonies", but "the failure by the Colonial Office to provide sufficient money to perform the task" (Harrison-Church, 1951a; 1951b, 490). He alerted the British colonial administration to the cartographic advantage of other European colonial powers in matters of West African development.

Interestingly, Harrison-Church cited from Lord Hailey's Colonial Research Committee's report for 1942-1943 that "it has been the normal practice hitherto for Colonies to finance their own surveys out of current revenue and this has resulted, almost of necessity in topographical surveys – where they have been attempted at all – following instead of preceding development" (1951b, 489). Hence, he contends that topographical information was necessary for socio-economic development, rather than a restricted device of the British War Office. Again, he observed Lord Hailey's comment: "The orderly planning of the land and mineral development of Colonies is impossible without accurate topographical knowledge. In many colonies, this knowledge is incomplete. In some instances, primary geodetic surveys have not been done and consequently the preparation of accurate topographical maps are impossible" (HMSO, 1946, 5, Cited in Harrison-Church, 1951, 489). Cartographic production, this geographer argued was vital to social development

Similarly, Steel (1948, 30) observed that "all too frequently basic data are collected only after, not before, an emergency". This occurred in the case of the cocoa survey in the Gold Coast and Western Nigeria during the Second World War. For instance, Prothero (1954, 62) explained that the cocoa survey was:

> set up in 1944 after the discovery of outbreaks of swollen shoot disease among the cocoa trees in Nigeria; its object, to survey the cocoa growing areas, to locate the areas of infection and deal with them, and to determine the conditions existing within the cocoa growing region with reference to the acreage under cocoa, the number and size of the farms, and the age of the trees. The importance of the work of this survey has been immense.

Thus, the Nigeria Cocoa Survey was involved in large-scale map production. For instance, the aforementioned 1: 62, 500 scale *Map of Ijebu Province and Colony Showing density and age of Cocoa*. Thus, colonial geography emphasised the dearth of and the need for geo-cartographic information at a larger scale. For example, Prothero's (1955) particular interest in evaluating the agricultural census of 1951 was in drawing attention to the challenges of the survey techniques of the census. He noted the fundamental challenge of inadequate maps for conducting the census. "The census report refers to the difficulties encountered as a result of an almost total absence of adequate maps. There are

practically none available on a scale suitable for recording the information required for the census" (Prothero, 1955, 202, 204).

A critical path to understanding and solving the problems of indigenous agriculture was the need for spatial knowledge of land use through large and medium-scale map production. In 1951, T.D. Weatherhead, the General Manager of Hunting Aero-Services Limited, referred to the UN Scientific Conference on the conservation and utilisation of resources in 1949. This scientific conference, he notes, complained about the deficiency of basic data on resources such as minerals, land, water, etc., therefore, emphasising the need for systematic inventorying of resources, particularly in the colonies. However, the compiling of resource inventory, for example, for agricultural activities, was demanding when using conventional ground methods. Therefore, he noted that "the advent of aerial techniques has reversed this situation, so that it is now possible to survey, using the word in its widest sense, before any development takes place" (Weatherhead, 1951, 854).

The cartographic design of available geographic information was a concern in colonial geographies. Prothero (1954) demonstrated in *Economic Geography* the potential of the aerial photograph in the production of large-scale maps of African agricultural systems. He drew attention to the challenges of state maps such as the 1:500,000, 1:250,000, 1:62, 500, and 1: 50,000, which all had, deficiencies such as inadequate coverage, poor accuracy and little detail. Prothero argued that future planning of agriculture requires surveying and mapping of the existing conditions. For instance, he employed a 1:5,000 aerial photograph to produce a base map of farmland west of Ilesa. Fig.4.15 depicts a typical cocoa-growing landscape in central Yorùbáland that revealed a farm village amid the agricultural landscape. However, the concern of colonial geography was with land use, land ownership and crop cultivation rather than the indigenous mode of agrarian spatial thought.

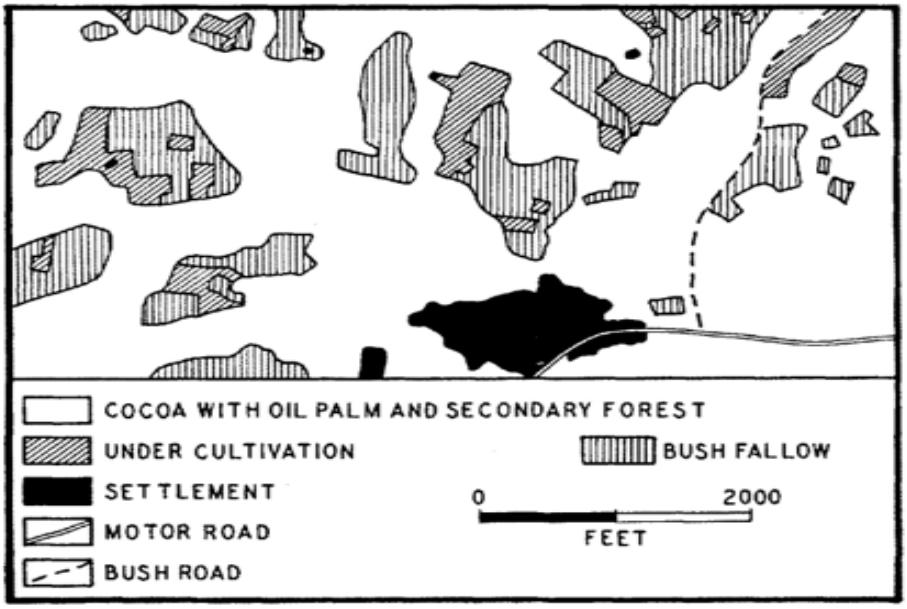


Fig.4.15 Land-Use Map of Cocoa-growing landscape west of Ilesa (Source: Ralph Prothero, 1954)

Decades of small-scale map production had made the spaces of the economic landscape, in the image of the colonial capitalism, the normative. However, reshaping and modernising African agriculture in the development decade required detailed cartographic knowledge. For instance, Prothero (1955) suggested the use of air photographs to prepare large-scale maps for agricultural census:

The making of simple maps from photographs would help considerably in calculating the total area of village land, which must be known where area sampling is used. The census report speaks of the need for. 'an accurate sketch map . . . indicating the boundaries of the village . . . [to] show details of all features such as hills and rivers and landmarks such as paths and habitations, which will assist in the location of sample plots'. The advantage in using air photographs would be that such maps could be prepared before work in the field commenced. Reasonable practice in photographic interpretation should make possible the identification of land under cultivation at the time the photographs were taken. The differentiation of fallow from uncultivated bush would be more problematical and a great deal of work is required on this aspect of photo-interpretation.

However, areas under heavy bush, which had not been farmed for a considerable time could be identified, and non-agricultural land, including rock outcrops and water, would present no problem. The identification of land under (permanent) tree crops and uncultivated bush with (permanent) tree crops would present some difficulties. The writer has elsewhere made some tentative suggestions concerning the identification of areas under cocoa from air photographs; the main difficulty is one of devising a standard

technique of interpretation. Oil palms can be identified without difficulty and with photographs on a scale of 1/10,000, individual palms can be counted where they do not occur in dense stands.

Nonetheless, there were challenges to depicting the indigenous land-use systems. Moss (1959, 8), in his detailed examination of a 1:25,000 topographical map of West Africa, argued that the two fundamental challenges of land use mapping in sub-Saharan Africa were first

the cartographic difficulty of representing a land use pattern which consists of an aggregation of minute, disseminated, individual units, many of which are not a fraction of an acre in area; [and second] The related geographical problem of fitting the distinct facets of the pattern produced by the physical, social and economic forces into a dynamic, constantly changing pattern of land utilisation.

Even the scale of 1:2,500 Ordnance Survey plan which could depict "the exact shape of every enclosure" and conveniently represent "almost exactly an acre" (Birch, 1949, 24) could not visualise the average African farms. The emerging knowledge of indigenous land use through "the ordering principles of the cartographic gaze" (Pickles, 2004, 80) reinforced the presuppositions of African land tenure as a serious barrier to economic progress (Klopstock, 1950; Steel, 1948). As Pile (1997, 17) notes that "colonial authorities seek to describe what the colonised are like and then to denigrate them on the basis of those descriptions. The forms of knowledge, through which the colonisers come to know the colonised and significantly through which they become the coloniser, are fantasies". Thus, irrational fields and small farm sizes with their unpleasant visible sight defined the indigenous agricultural landscape.

This increasing map knowledge of a disordered agrarian system relied on ground survey and aerial photographic data rather than a consultation with the indigenous spatial knowledge of colonial subjects. As Krishna (1994, 507) argues "modernity comes to be defined in the disciplining of ambiguity and its intolerance for multiple or layered notions of identity". Therefore, there was no place for the notion of farm-villages in the Cartesian framework regardless of coming across it as shown in the landscape study, for instance, of Morgan (1959a) and Prothero (1954) above. Instead, interpretations of the farm-villages on the air-photograph were as "isolated buildings" and the field system

surrounding it, as “scattered cultivation”. This modernist interpretation of the agrarian features later transformed into the cartographic symbology of medium-scale National Topographical Maps in early post-colonial Nigeria (See Fig.4.16). Hence, the examination, knowledge and preparation of African agriculture for modernisation were through the Cartesian scientific survey of the agricultural landscape (Gregory, 1994).

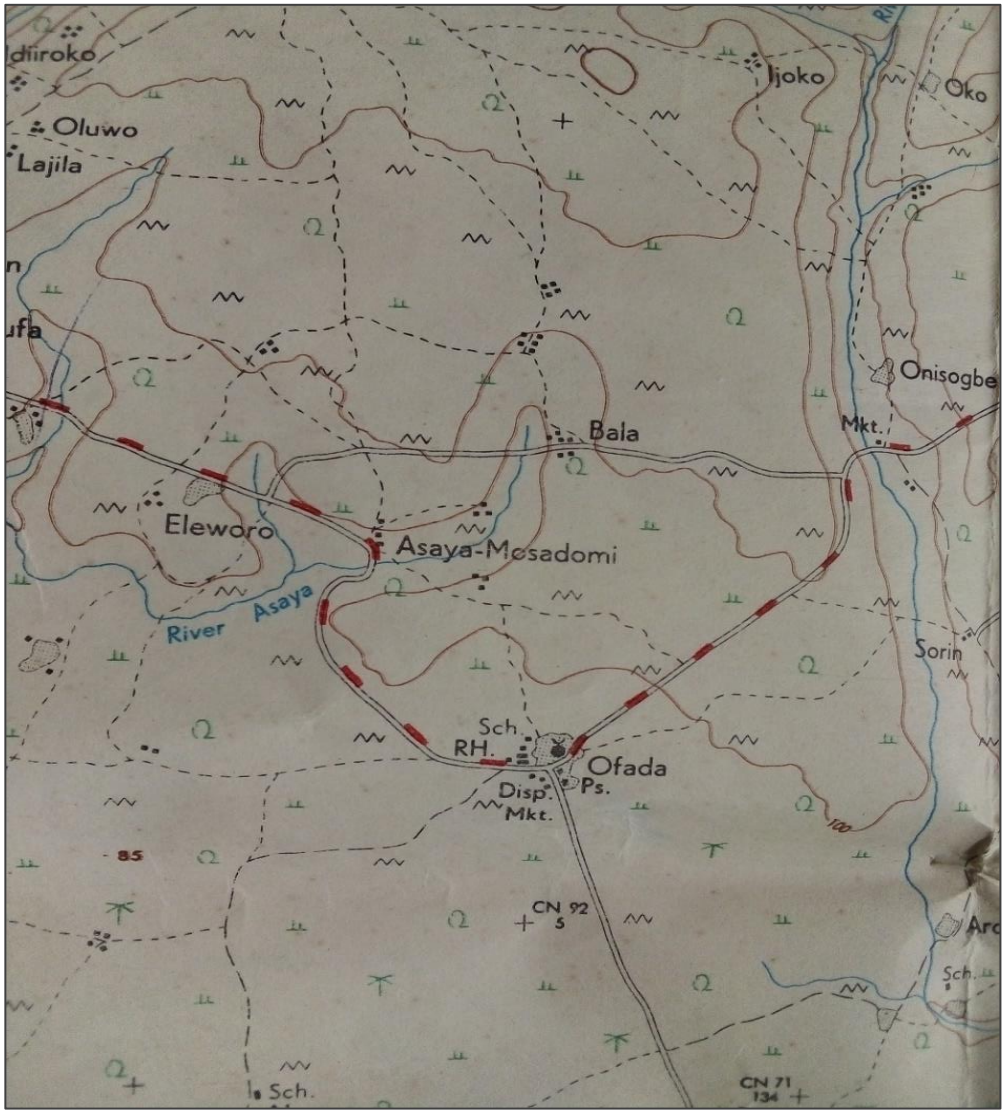


Fig.4.16 Detail of Topographical Map of Southwestern Abeokuta Province, 1964; Scale 1:50,000 Source: Federal Surveys, Nigeria, 1964 (Lagos: National Topographic Map Sheet Lagos 279NE)

Therefore, I contend that the problems of African agriculture, framed within the contribution of scientific cartography amongst other colonial knowledges, assisted

the *justification* for modernist developmental intervention (Kippler, 2014; Lawson, 2007; Zein-Elabdin, 2009). The recommended solutions to the problems of African agriculture were rational planning of rural economy, compact agricultural landscape and reasonable farm sizes. The foremost need in reshaping African agriculture, to several scientists and economic planners, was rational spatial planning. For example, Steel (1948, 29) wrote, "everywhere there is an obvious need for the most careful consideration of the use of the land and for the establishment of a planned rural economy". He observed that the competition between cash crop cultivation and food production raises questions of prohibiting or strictly restricting cash crop planting in certain areas as the Asante Confederacy Council did during the Second World War.

Although, he recognised that the colonial administration might not consider reducing cash crop production, but the question was relevant to all over West African colonies, for instance, "round the great city of Ibadan" (Steel, 1948; 42). These "questions… can be adequately answered", Steel (1948; 41-42) argues, "only if there is a land-use survey and an attempt to establish certain general principles governing land utilization". Hence, visible ordering on the landscape was a means to allot spaces to cash or food cropping. Also, Prothero (1955, 197) emphasised that "it has become increasingly apparent that adequate collection, study and assessment of data are an essential preliminary to the planning and launching of development schemes in under-developed countries".

The aim of rational agricultural planning was land consolidation whereby fragmented lands merged into viable farm blocks. Doing this suggests a "most promising field for large-scale development" (CDC, 1949). Rational spatial planning was not only a solution for the small-sized farm but also a precursor to inculcate a modernist style large-scale cultivation. Indeed, Klopstock (1950, 170) argues, "many millions of Africans ….must ….be induced to change their farming practice". He further observed that "among British agricultural experts there is now general agreement that there should be set up pilot group farms consisting of an agglomeration of individual peasant holdings, initially to be under the management of government officers, but gradually to be taken over by committees made up of native growers" (*Ibid*, 176). Land consolidation highlighted the need for vast potential farmlands. Hence, Floyd (1969, 169) observed: "Field mapping and land-use surveys on a topographical scale can assist the presentation of an accurate picture of crop

patterns and agricultural methods at the regional level, an essential basis for designing those innovations in agriculture which are so patently necessary for the economic development". Cartographic devices for land-use planning were a crucial part of this notion of the planned rural economy.

The agricultural settlement scheme served this purpose of land consolidation and reasonable farm size with the opportunity to order geometrically specific agricultural landscapes. As aforementioned, this consolidation required vast potential farmland, which required geographic exploration of several areas in the provinces. Maps were essential in the process that secured vast potential farmlands. For example, Mr D.P. Stanfield, the Oyo District Officer, was the first administrative officer to propose the farm settlement scheme in Western Nigeria. This proposed plan was for demobilised soldiers in 1945 after the Second World War. He employed a sketch map to show the proposed location, "twenty miles up the Ogun River from the point where it crosses the Oyo-Iseyin road the hills converge. Here a weir could readily be constructed and the river dammed in sufficient volume to afford irrigation for a considerable acreage of crops" (Stanfield, 1945) (See Fig.4.17).

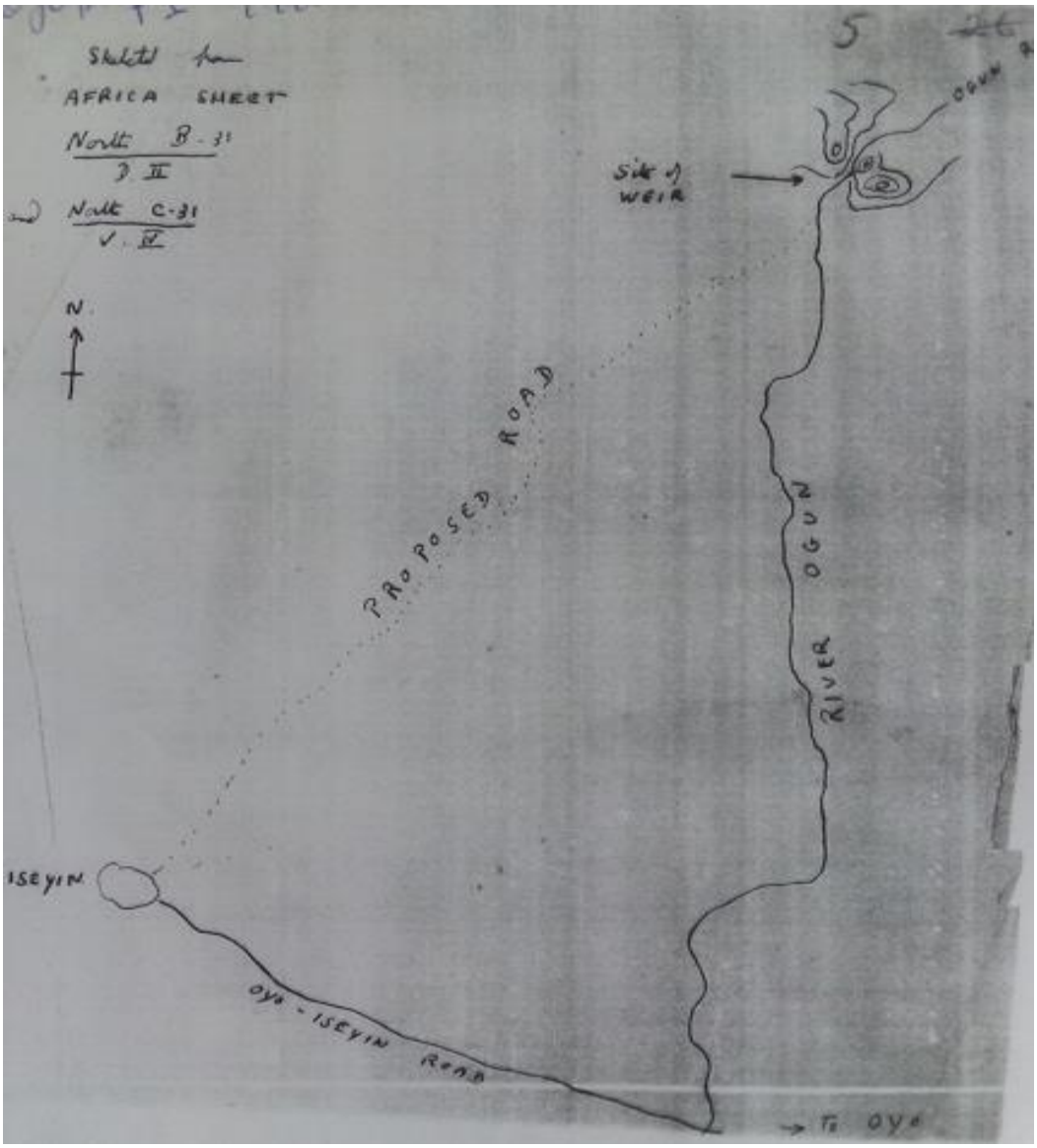


Fig.4.17 Sketch Map of D.P. Stanfield, 1945 (Source: National Archives, Ibadan, 2022)

However, there were suggested alternative sites near the Ogun and Awon rivers by Mr A. Gibberd, the Provincial Agricultural Officer (Gibberd, 1945). By 1950, the Western Regional Production Development Board (WRPDB) had secured a place near the Amaka [later Ikere] Gorge on the Ogun River for the commencement of the Upper Ogun Estate Scheme. The Native Administration (NA) draftsman, Mr N. Mohammed in 1950 prepared an initial sketch plan of the estate (See Fig.4.18).

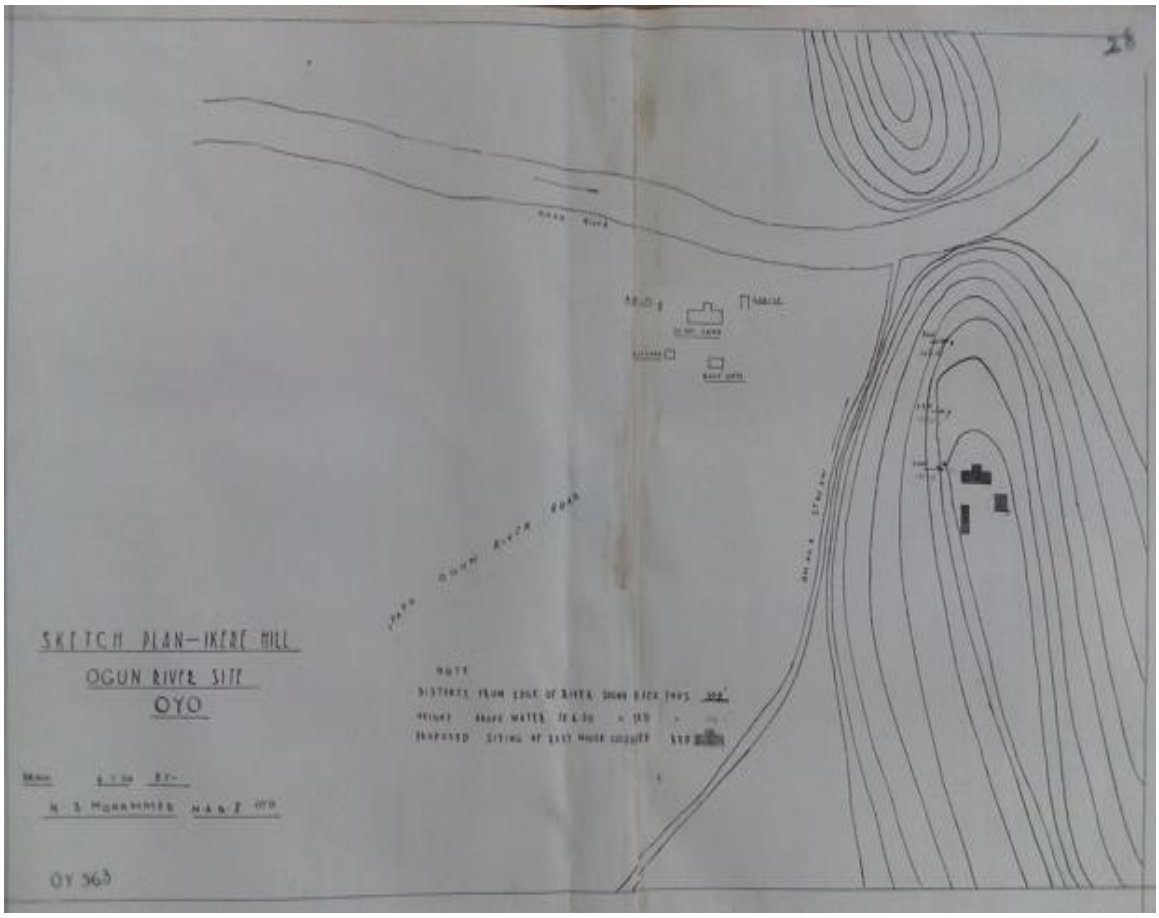


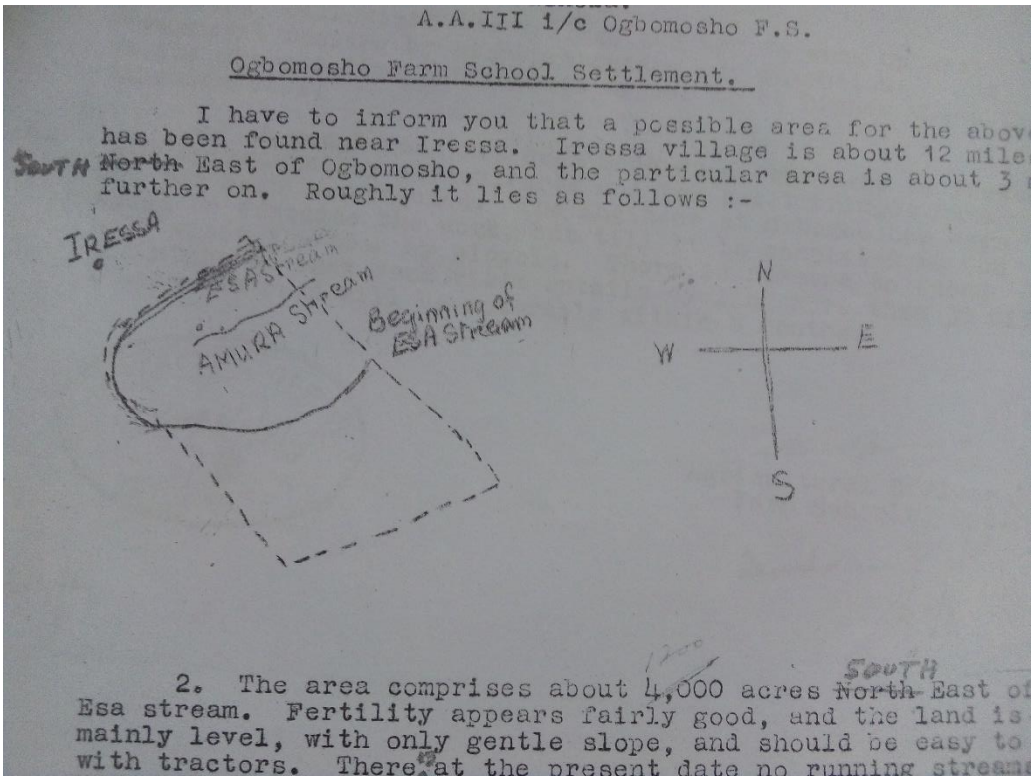
Fig.4.18 Sketch Plan, Upper Ogun Estate, Oyo Province, 1950 (Source: National Archives, 2022)

Similarly, there was an effort to establish a farm settlement to settle the graduants of the Oyo and Ogbomoso Native Authority (NA) Farm Schools. In August 1949, Mr Abell, the Resident of Oyo Province, commented on farm school training for colonial subjects at the Oyo NA Farm School, Fasola resolving to create similar rational farmland. He drew the attention of his administrative colleagues to further training of graduants for 4 to 6 years on a communal farm. He emphasised that "close supervision is required if former students are to be prevented from returning to traditional methods" (Abell, 1949). The Resident aimed at producing modern scientific farmers through the geometrically ordered communal farm. So, he directed "the assistant district officer, Mr Marsh, who is stationed at Ogbomoso to inquire whether 2,000 acres would be available there for the purpose of a

communal farm" (*Ibid*, 1949). This inquiry for suitable farmland led to geographic explorations. The geographic explorations involved several potential lands near Jabata, Iressa and beside the Isoran River, north of Iseyin road.

Several maps produced to illustrate these places and potential fields were integral in the administrative correspondences of colonial departmental officers as they sought to implement the scheme. For example, in February 1950, the provincial agricultural officer explored a suggested site in the company of Mr Marsh, the Assistant District Officer Ogbomoso. He reported, "the area is about 2000 acres, bordered on the northeast by the Ekpo stream" (AO, 1950). Likewise, W.J.C. Little, the Agricultural Officer, explored in October 1950 areas in the Ogun River valley. He drew attention to "the most promising area appears to be the valley of the Isioran and its tributary, which runs into the Ogun on the other side….about 2 miles north of the Iseyin road", (Little, 1950).

Similarly, in February 1951, F.G. Bridges, an agricultural officer informed several colleagues in the Political and Agricultural Departments, "that a possible area for the above [school settlement] has been found near Iressa" (AO, 1951). Besides, he wrote, "the area comprises about 4,000 acres south-east of Esa stream. Fertility appears fairly good, and the land is mainly level, with only gentle slope, and should be easy to work with tractors" (See Fig.4.19). To frame the argument for the suitability or non-suitability of different areas he employed sketch mappings. In the absence of large-scale maps of the rural areas, sketch maps became essential to re-present locational information for assessing land suitability. These maps and mappings assessed the water supply, the potential size of the land, the distance to Ogbomoso, and so on. Hence, sketch mapping was essential to colonial agricultural planning and envisioning rational agricultural development.


A.A.III 1/c Ogbomosho F.S.

Ogbomosho Farm School Settlement.

I have to inform you that a possible area for the above has been found near Iressa. Iressa village is about 12 miles SOUTH ~~North~~ East of Ogbomosho, and the particular area is about 3 further on. Roughly it lies as follows :-

2. The area comprises about 4,000 acres ~~North~~ SOUTH East of Esa stream. Fertility appears fairly good, and the land is mainly level, with only gentle slope, and should be easy to with tractors. There at the present date no running stream

Fig.4.19 Sketch Map by Provincial Agricultural Officer, February 1951, (Source: National Archives, Ibadan, 2020)

The potential farmlands were also the subject of deliberations on the design of specific agricultural settlement landscapes. Visualisations, particularly scientific and sketch maps, were integral to measuring, calculating, ordering, dividing and superintending these processes (Legg, 2007; Rose-Redwood, 2006). There were designs of potential farm settlement landscapes. For example, in July 1951, this agricultural officer in charge of the NA Farm Schools noted, "now that we have mapped the area accurately, it is found to be smaller than was originally thought. It comprises about 1, 300 acres" (AO, 1951). There were designs of potential farm settlement landscapes. For instance, the agricultural officer gave detailed suggestions about farm equipment and village settlement. In the latter topic, he discussed dwelling houses using a sketch and explained the proposed layout of the settlement using a 'diagram'. However, he noted, "the final layout can be planned only after a much larger and more detailed survey". Hence, land surveying and scientific cartography were the ultimate determinants of the

actualisation of a compact agricultural landscape. Fig.4.20 reveals the imaginative farm layout as the agricultural officer emphasised that:

> we should stick to individual ownership as far as possible, only such items as tractors and implements being co-operatively owned. Each settler will have his own farm, running down the hill and thereby including a section of each contour strip, and will have his own cowhouse adjacent to his farm. Though individually owned, the cattle can combine into herds for grazing.

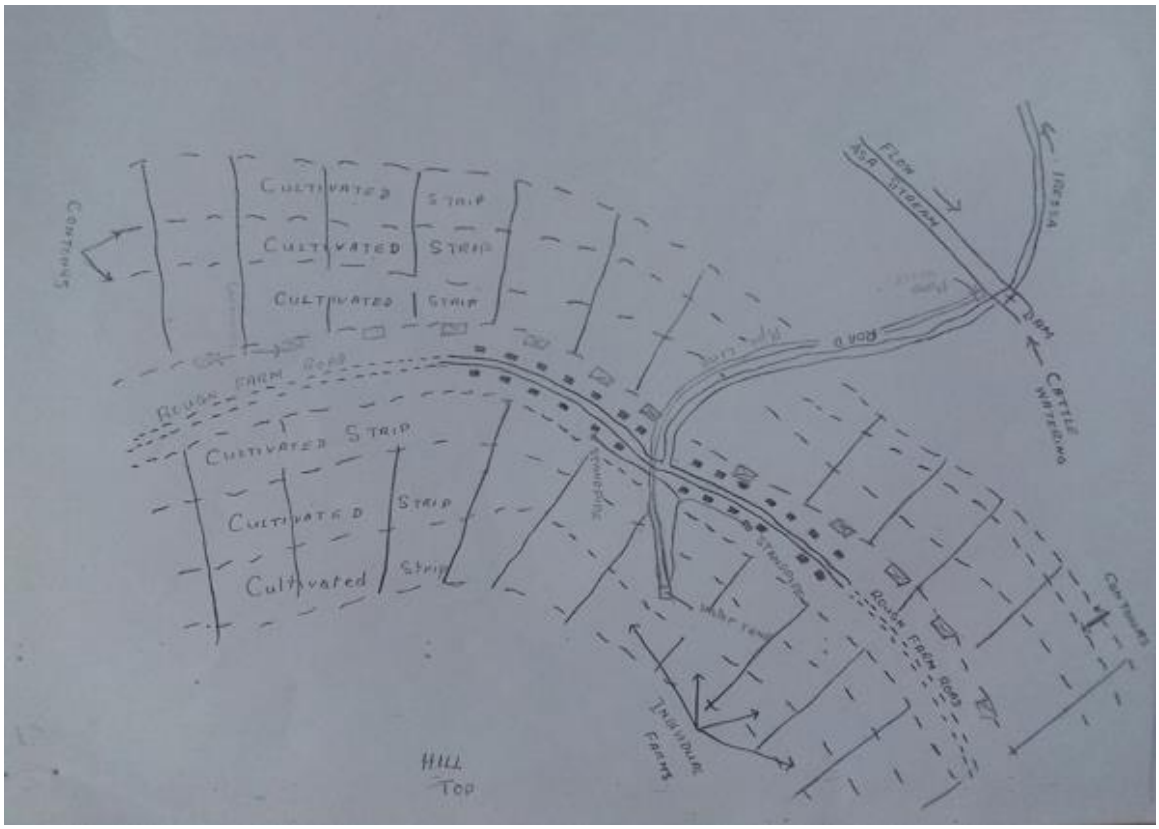


Fig.4.20 Sketch Map by the Provincial Agricultural Officer of the Proposed Iresa Farm Settlement, July 1951, (Source: National Archives, Ibadan, 2020)

There are also visual designs of rational farm sizes. These envisioned rational farm sizes were not less than 5 acres since "with the hoe alone, the limit for one man is about 3 acres". It was a land subdivision based on assumptions of maximum economic returns for an average rational economic man (Steele, 2004). There was the need for maps to effect this farm size policy to produce new, modern farmers. Producing a modern agricultural subjectivity was associated with the geometric ordering of the biophysical landscape for

farming operations (Abrahamsen, 2003). For example, in October 1950, the Oyo Provincial Agricultural Officer after discussing his view regarding the potential farmlands beside the Isioran River, north of Iseyin road, deliberated on a possible policy for the proposed farm sizes and operations of the agricultural settlement. He reechoed the views of the senior district officer in Ibadan on a settlement scheme that focused on animal husbandry, considering

"areas where mechanical cultivation is difficult. However, if we can provide a light tractor to take some of the backache out of the work, this may make the settlement more attractive and increases its prestige. We could aim to begin with 50 settlers, each with 5 acres of arable in adjacent strips. Adjacent plots would be down to the same course, so that the tractor could work straight through".

Geometrical planning of the landscape was necessary for agricultural mechanisation. As aforementioned, "The ordering principles of the cartographic gaze" (Pickles, 2004, 80) was useful in agricultural sociology. Afterwards, he provided a mechanical aided drawing in the correspondence to visualise his proposed 'rational' field arrangement (Fig.4.21).

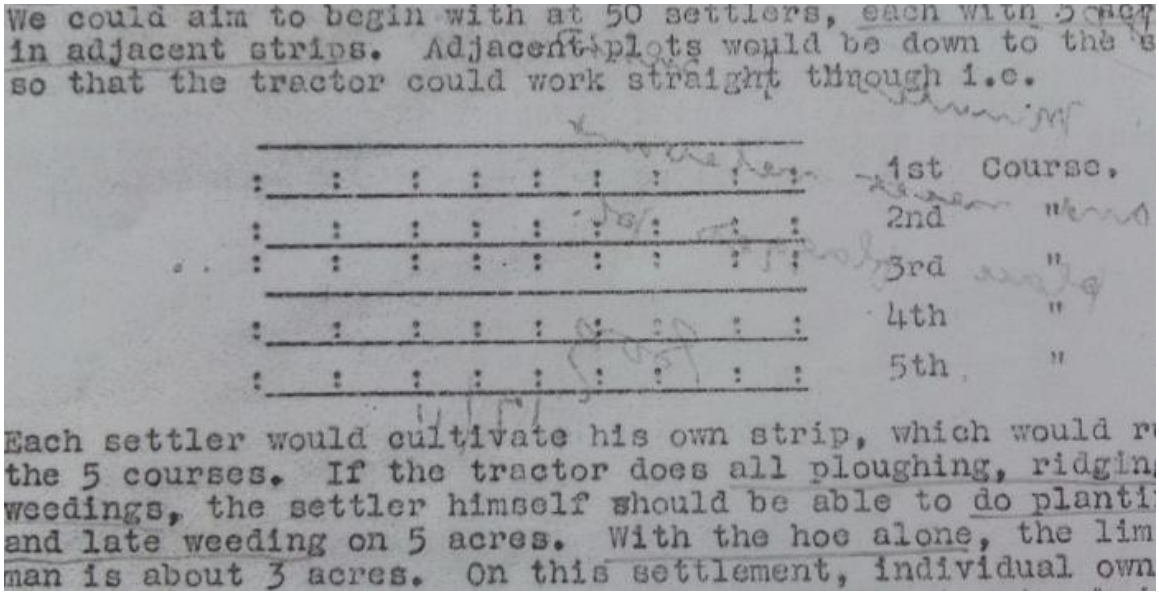


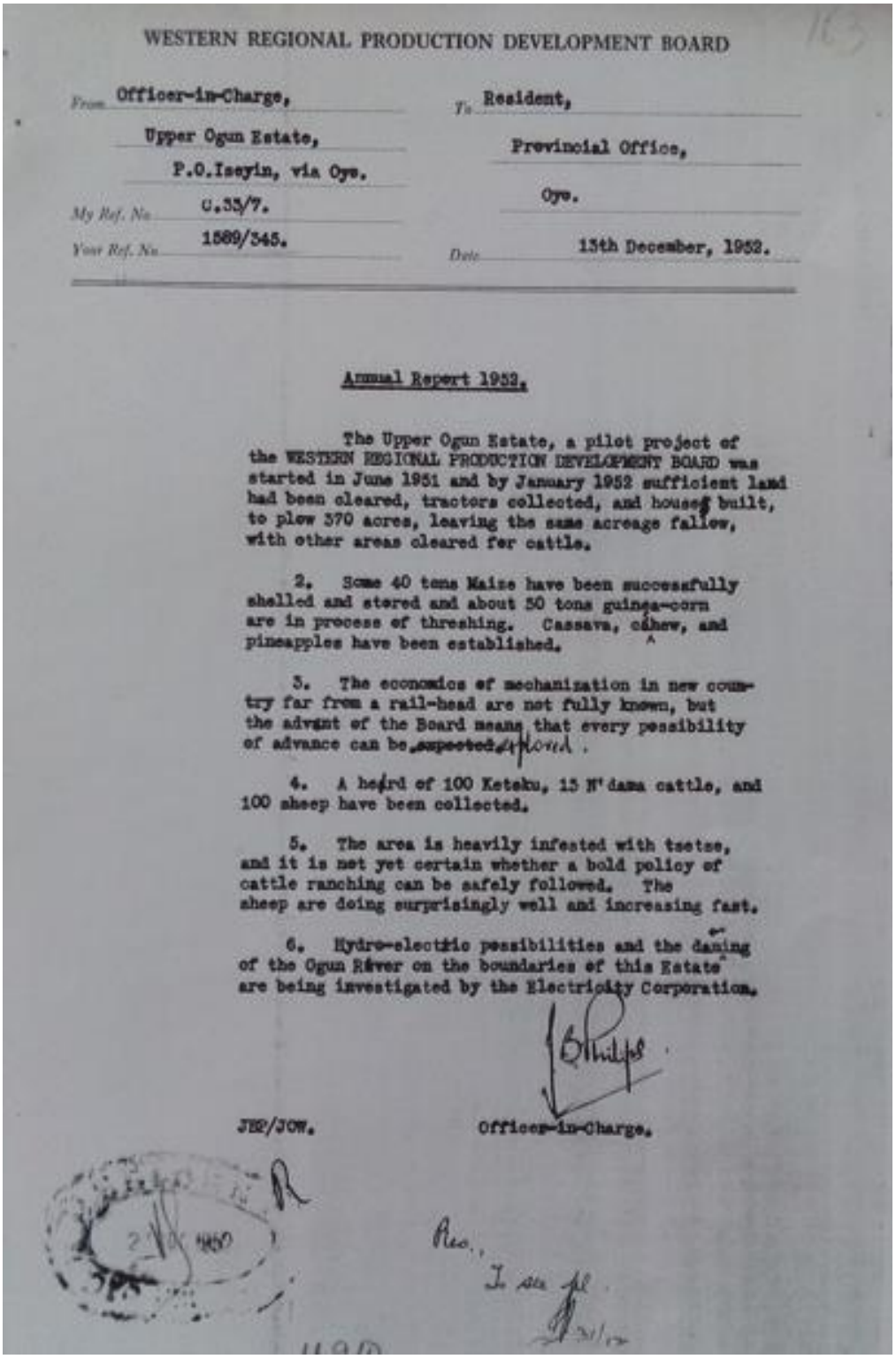
Fig.4.21 Plan of a Field Layout by the Agricultural Officer, Oyo Farm School, October, 1950, (Source: National Archives, Ibadan, 2020)

The use of discursive apparatus such as maps, as Harvey (2001) have argued, shows the co-production of the geographies of capitalist economies through space. While some scientists and economic planners thought the influx of capital determined the establishment of large-scale agricultural development (Klopstock, 1950), other development planners were more concerned with creating state-spaces of agricultural production. To achieve this rational agricultural planning in Oyo Province requires several cartographic apparatus to give a visible form to the compact farmlands and rational farming units. The emerging African nationalist government wanted an expansion of this agricultural settlement scheme in Yorùbáland. The Iressa Farm Settlement and Upper Ogun Estate were located in Oyo Province, one of the eight provinces of the Old Western Region. They were practical examples of rationally planned agricultural landscapes desired by the African modernisers to revolutionise the agricultural economy of the region. Despite challenges, there were prospects of successful progression in modern agriculture exemplified by these rational economic landscapes (Fig.4.22). Thus, as Lawson (2010, 353) observed, "one round of development dynamics produces a particular geography that then conditions how new geographies are made".

In general, the colonial path of the agricultural settlement scheme in Yorùbáland conditioned the post-colonial administrative trail of the scheme. Oluwasanmi (1957, 737) advocated, "large-scale plantations on the magnitude of the Apoje project sponsored by the Regional Production Board of Western Nigeria will increasingly become the instruments for capitalizing tropical agriculture and of introducing new and better methods of cultivation". Hence, Morgan in 1959 echoed the modernist path of progress of Yorùbá agriculture:

> In the new agricultural schemes, the large-scale organization of peasant cultivation has been attempted, frequently combining the use of mechanized equipment. The Eruwa Mechanized Farming Scheme, initiated in 1951, includes a considerable acreage of contour-ploughed land under pineapples for the local canning industry. The contrast between the huge ordered fields under a single crop and the small patches with their mixed crops on the neighbouring lands is startling. …. In the Western Region a scheme of integrated rural development, including the use of hydro-electric power, is planned for the Upper Ogun River basin. The

Upper Ogun Estate with its contour-ploughed strips and improved pastures has already been established (Morgan, 1959a, 62).



WESTERN REGIONAL PRODUCTION DEVELOPMENT BOARD

From Officer-in-Charge, Upper Ogun Estate, P.O.Iseyin, via Oye.

To Resident, Provincial Office, Oye.

My Ref. No. C.33/7.

Your Ref. No. 1589/345.

Date 13th December, 1952.

Annual Report 1952.

The Upper Ogun Estate, a pilot project of the WESTERN REGIONAL PRODUCTION DEVELOPMENT BOARD was started in June 1951 and by January 1952 sufficient land had been cleared, tractors collected, and houses built, to plow 370 acres, leaving the same acreage fallow, with other areas cleared for cattle.

2. Some 40 tons Maize have been successfully shelled and stored and about 50 tons guinea-corn are in process of threshing. Cassava, cashew, and pineapples have been established.

3. The economics of mechanization in new country far from a rail-head are not fully known, but the advent of the Board means that every possibility of advance can be explored.

4. A herd of 100 Keteku, 13 N'dama cattle, and 100 sheep have been collected.

5. The area is heavily infested with tsetse, and it is not yet certain whether a bold policy of cattle ranching can be safely followed. The sheep are doing surprisingly well and increasing fast.

6. Hydro-electric possibilities and the damming of the Ogun River on the boundaries of this Estate are being investigated by the Electricity Corporation.

JHP/JOW.

Officer-in-Charge.

Fig.4.22 Annual Report, Officer-In-Charge, Upper Ogun Estate, 1952 (Source: National Archives, Ibadan, 2022)

4.3.2 Maps as Government: Cartographic Rationality in the Production of Modern Agricultural Subjectivity and Landscape Identity

Actors of the Modernising Agricultural Landscape

There are various actors involved in the agricultural modernisation programmes of Western Nigeria. These actors were interested in agricultural modernisation through rational planning that facilitates compact farmlands and rational farming units. Although the Western Nigeria Government (WNG) took a leading role, there were others actors including the citizenry of the region and international organisations. The Yorùbá involvement in the political governance of the Lagos Colony, under the colonial regime, expanded between 1922 and 1950 during an era of limited partisan politics (Crowder, 1966). However, the MacPherson constitution of 1952, brought in the first responsible government of Yorùbá African nationalists into state administration of the Western Region, created under Richards's constitution of 1947, with some non-Yorùbá ethnic groups as part of the region.

These African nationalists led by Jeremiah Obafemi Awolowo, who was styled the Leader of Government Business, were under the tutelage of colonial government from 1952. Other nationalists in the WNG include Samuel Ladoke Akintola, Ayo Rosiji, J.F. Odunjo, C.D. Akran, E.A. Babalola, Augustus Akinloye and Stephen Awokoya (CO, 1958a, 224; Crowder, 1966; Nigeria Yearbook, 1953). However, they sought more governing power; in 1954, the Lyttleton constitution placed the Nigerian State within a federal framework and gave increasing power of administration to the regions. In 1957, the Western Region secured internal self-government. Like in other British colonies, during this political evolution and constitutional advancement in the late colonial period, the African nationalists in the region were keen on modernising the region. On 13 March 1956, Obafemi Awolowo contends in London, referring to the Western Region that "We Nigerians are in a hurry. We realise that we have been left behind in the race for economic and social progress" (Cited in Pilkington, 1956, 220). Hence, it was a capitalist dream of African socialist experiment that emerged in Yorùbáland (Scott, 1998). For

instance, on receiving limited governing power of administration in 1954, the WNG began an elaborate 'social development programme' in health, education, manufacturing industry, agriculture and regional planning.

The vigorousness of its citizenry, particularly the Western-educated class, equalled the keenness of the WNG for modernisation and modern development in all facets of the social, political and economic life of the society. This modernising urge of the growing business, professional and bureaucratic classes, had emerged earlier in their attempted 'unguided' efforts at modernisation before and during colonial subjugation. For instance, the semi-independent Egba United Government under its secretary Adegboyega Edun worked at the modernising programmes in the first decade of the twentieth century (Crowder, 1966; Gailey, 1982). Indeed, more Western-educated Yorùbá wanted an aggressive productive approach to modernising. For example, Ogunseye (1960) commended the shift from bias for social services by the Western Regional Government to a shift to agriculture and other directly productive services. Also, Oluwasanmi (1966, 216) in his *Agriculture and Nigerian Economic Development* argued, "a primitive agriculture cannot provide adequate support for industrialization". Although the WNG framed the economic modernisation schemes, the discourses of modernisation were present within the larger citizenry. The rise of this form of socialist modernity pervades all strata of the Yorùbá society. Nonetheless, both the citizenry and regional administration required technical and financial assistance to fulfil their modernising aspirations.

The United Nations (UN) and its agencies were also actors in the agricultural modernisation process in the Western Region. Hence, they offered their assistance to the region in its 'march towards progress'. Amongst UN agencies that provided technical assistance in Western Region was the Food and Agricultural Organisation (FAO). Another international organisation that had featured since the late 1940s in the economic sector of Nigeria was the World Bank. Indeed, its 1955 mission to Nigeria commenced the 'development decade' of supporting the African economy (Ekundare, 1973; Eicher, 2003). In addition, the former colonial master of Nigeria, the United Kingdom, had continued providing technical support and services for the ex-colony. For instance, the DCS, which had transformed into the Directorate of Overseas Survey (DOS), carried on

with the topographical mapping of Nigeria under a Mutual Technical Aid Scheme to the Nigeria Central Government in the early 1960s (Balogun, 1989; Harris et al, 1964). Besides, other nations, for example, Israel were involved in the implementation of the agricultural modernisation programme.

Mentalities of Actors and Form of Knowledge

Each of these actors was propelled by very similar mentalities but operating in different cultural environments and at different scales. The notions of modernity, social progress and economic growth propelled the technical support of the international organisation and donor agencies of developed countries of Europe and America (Potter et al, 2012, 65-66). Hence, they were guiding the transformation of the newly independent African countries from backward, agrarian societies into modern industrialised societies through the various technical assistance given to the ex-colonies. The ideological position of high modernism, developed in the early 1950s, informed the development theory and practice of international development organisations (Scott, 1998). Hence, they viewed the material progress of society as a technical matter. For example, the World Bank mission had come to Nigeria earlier in 1953 to "assess the resources available for future development, to study the possibilities for the development of the major sectors of the economy and make written recommendations for practical steps to be taken, including the timing and co-ordination of departmental activities" (World Bank, 1955).

The lending potentialities of the World Bank were such that any government of an ex-colony desiring modernisation in the early 1960s took the financial institution seriously. The governing elites that operated the regional and central governments of Nigeria were indoctrinated into the latest notion of capitalist modernity. Hence, the framing of the socialist modernity of these African nationalists was within a capitalist dream (Scott, 1998). In addition, within the context of other African countries, the emerging sense of national pride meant seeking all available support for modernising socio-economic structures. Thus, there was embedding of the capitalist vision of mass productivity in the art of state economic planning in the early post-colonial socialist modernity.

Although Western-educated Yorùbás seems foremost in desiring or aspiring modernisation, a substantial part of the Yorùbá society was equally interested in varying degrees. As Ettlinger (2011, 548) observed, "discourses are produced and reproduced by everyday citizen-subjects, not imposed from the top. This understanding of the source of power 'deep in the social nexus' helps explain how disciplinary power and biopower are mutually embedded: Calculated courses of action that target the population connect with mentalities that are produced by the citizenry". These degrees of modernising mentalities, acceptable to the society in general, echoed in the all-encompassing notion of *Olaju* [enlightenment] amongst the people (Peel, 1984). Throughout the nineteenth century, several changes witnessed by the Yorùbá society had transformed indigenous philosophy towards property ownership, education, warfare, governance, inheritance and agriculture. Consequently, the indigenous society welcomed or acknowledged "progress" or "development" in their own way. However, the idea of *Olaju* varied though not in substance but detail, for example, between the Western-educated Yorùbás and traditionally educated Yorùbás. Indeed, the features of *Olaju* differed amongst the Western-educated Yorùbás themselves (Ayandele, 1974). However, the mentality of *Olaju* in its generalised form was about a form of social change and was a binding concept for aspiring and supporting the modernist programmes of the Action Group (AG) political party.

The Action-Group party, which formed the WNG, was itself a transformation of a pan-Yorùbá cultural association known as 'Egbe Omo Oduduwa' (Crowder, 1966: Webster and Boahen, 1980). This cultural association comprised Western-educated elites but included several traditional leaders who were also Western-educated, for instance, Adesoji Aderemi, Ooni of Ife. At its foundation at Ile-Ife, the Egbe's vision in 1948 was to sustain Yorùbá civilisation and maintain the perceived ascendancy of the Yorùbás in the federation of Nigeria. Thus, the AG was prompted in its drive for modernisation by the slogan '*Life more Abundant*'. The AG's ideology of democratic socialism drove this populist approach to political administration (Awolowo, 1959). It was a political ideology, which the Yorùbás, as Stephen Awokoya in 1951, opined, seems "closest to their best conception of democracy and socialism" (Ayoade, 1985, 172). The party held an ideological position of creating a social welfare state. It was their vision to make

available all the facilities of modernisation available to everyone in Yorùbáland and the Western Region. The AG, who styled themselves '*Afenifere*' [Well-wishers], was riding on these espoused desires and aspirations of its citizenry for *Olaju*. Again, the mentality of modernising every sector of Yorùbá and non-Yorùbá life in the region reflected in the 'not-too-friendly' regional competition of the Nigeria federation that emerged after political independence from Britain in 1960.

Furthermore, this idea of Yorùbá development and the party's ideology emerged in the context of anti-colonial struggle, whereby nationalists alleged and argued that the British colonial master had consistently restricted the social and economic development of the Yorùbá people by giving excuses for underdevelopment (Webster and Boahen, 1980). For example, the conservative approach to establishing the colonial agricultural settlement scheme. Modernising agriculture in Western Nigeria was a core part of the electoral politics of the late 1950s (Awolowo, 1959). In contrast to this conservative planning and implementation of the colonial land settlement scheme in the early 1950s, the AG envisioned an expansion of farm settlements across the whole region. A hasty consequence of the social impact of colonial knowledges, practices and representation was that:

> By 1960, the public attitude to farming had not changed, tremendous increase in number of primary school leavers brought about mass unemployment of youth; rural life was poor and rural opportunities almost nil compared to the cities. Rural infrastructure was below minimum required for effective distribution of local supply and farm roads were never thought of as pre-requisite for profitable farm enterprise. Farms were small and scattered as a result of our land tenure system. Rural life was neglected leading to migration of youth to the cities. It is the anxiety to solve these problems that lead to the idea of testing the farm settlement approach as a development strategy (MANR, 1974, 6-7)

The Western Nigeria Land Settlement Scheme (WNLSS) resulted from the 1959 agricultural policy initiative of the regional government (WNG, 1959). Earlier in 1952, the WNG introduced an agricultural policy which stated that "the basic objective of any agricultural policy must be the achievement and maintenance of a reasonable standard of living for the people, with the possibility of providing for a progressive raising of that standard" (WNG, 1952, 5). However, the focus on agriculture was on cash crop

production with an intensification that led to the reversal of the anti-plantation colonial policy (Agboola, 1979: Floyd, 1969; Udo, 1965). The regional development institutions began establishing tree-crop plantations in sparsely populated areas (Akinola, 1995). In addition, there was a strong drive towards social development projects in several agricultural communities. Indeed, the objective of the Western Regional Development Plan 1960-1965 "[was] to increase production in the Region, both agricultural and industrial, so as, to bring also a steady rise in income and the standard of living" (See Fig.4.23). The policy was a means of modernising the complementary needs of the farming populace. The African nationalists espoused, "collective farming….that it is the organizational form under which the ignorant, backward, medieval peasant was transformed into a modern operator" (Harris, 1946, 169).

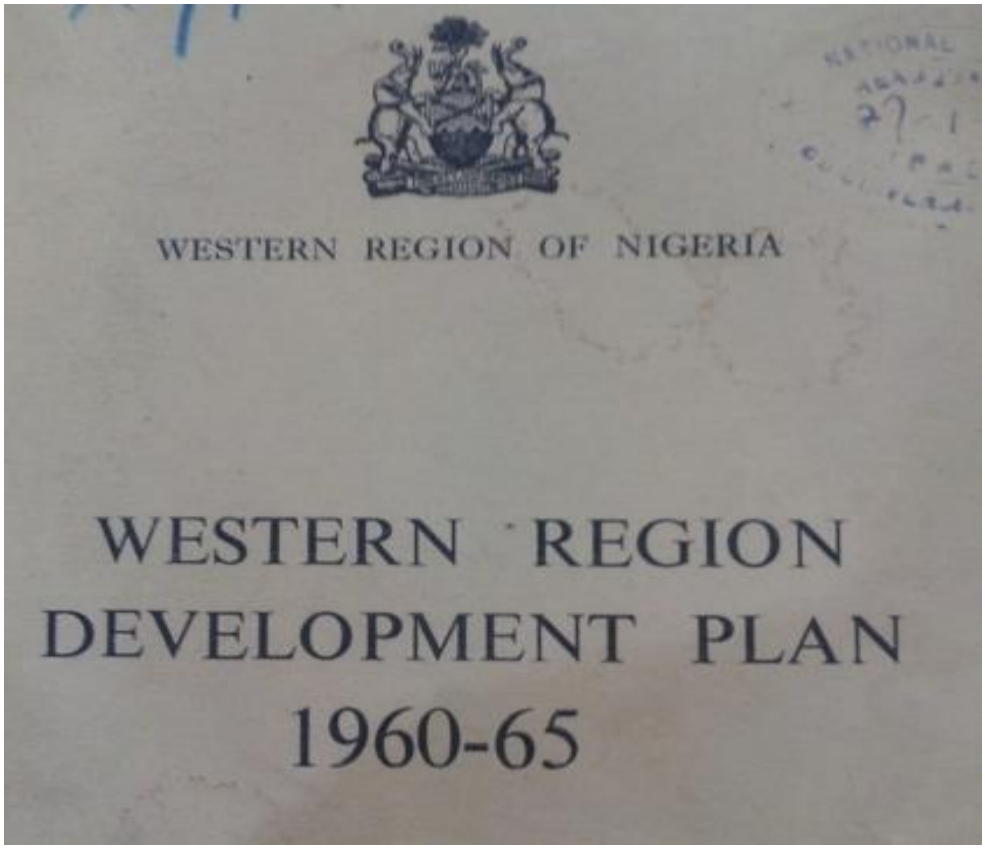


Fig.4.23 The 1960-1965 Development Plan, Western Region of Nigeria, 1959 (Source: National Archives, Ibadan, 2022)

Nevertheless, the emerging socio-economic problems of unemployment, rural-urban migration and the need to balance modernising agriculture through plantation system and smallholder reforms required another modernising scheme (Akinola, 1995). Thus, there was the introduction of the 1959 Agricultural and Natural Resources Policy, whose core objective was the establishment of farm settlements (WNG, 1959). "By the Western Regional Legislature Sessional White Paper No.9 of 1960", 12 farm settlements were established across the region in 1960 (MANR, 1975, 15). The Ministry of Agriculture and Natural Resources (MANR) was the operational director of an inter-ministerial committee responsible for implementing the WNLSS. The WNLSS eventually became the core programme of modernising agriculture in the region.

The discourses of agricultural modernisation and its socio-cultural and political variants of *Olaju* and *Afenifere* deployed the WNLSS to achieve a set of knowledges regarding compact farmlands and rational farm sizes. These modernist developmental discourses further employed cartographic discourse in implementing these wider spatial discourses. For instance, another key ministry in the development of agriculture was the Ministry of Lands and Labour (MLL), which was responsible for land surveying and physical planning of the farm settlements (MANR, 1975, 21). Although the MLL was devoted to producing urban and cadastral maps, spatial tools such as maps for economic development depend on its physical planning section (Greene and Vincent 1972; Obateru, 2005). As economic units based on geographical knowledge, the physical planning of farm settlements was crucial for its implementation. Selecting places for settlement schemes across the eight provinces of the Western Region in the early 1960s did require geographic knowledge provided in planimetric and topographic maps. Nonetheless, physical planners were primarily responsible for creating the micro-agricultural spaces depicted in large-scale maps and plans.

Cartographic Visualisation: The Materialising of Mentalities Through Techniques of Power

Spaces of Order – The Regional Landscape

The agricultural settlement scheme as a biopolitical project for transforming the agricultural landscape of Western Nigeria was an embedded territorial vision. The

modernist logic of rational planning, compact farmland and rational farming sizes or units held by post-colonial policy-makers was an internalised vision of colonial geographical imaginary (Harvey, 2005b, 223). Visualised discourses, particularly cartography, mediated these development discourses of rational agriculture on the regional landscape. Thus, I contend that the logic of rational planning facilitated the hierarchy of spatial order on the agricultural landscape. This territorial vision of modernising agriculture through the discourse of settlement scheme was also a continuation of (re)producing space through state cartography. The development strategy of the agricultural settlement scheme, initially conceived as a pilot scheme, took on the character of a regional-wide programme. For instance, Gabriel Akin-Deko, regional minister for agriculture (1959-1961) noted, "When the scheme was conceived the idea was to establish four pilot projects at zonal centres. But by the time it saw the light of day the human element had influenced its emergence. Each of the persons who would take the decision insisted on having one farm settlement nearer home than at the zonal centres. An amendment became inevitable, and twelve pilot projects at provincial centres were authorised to humor essential political considerations" (MANR, 1975, 96-97). Therefore, at inception, the settlement scheme mirrored politics but the biopolitical project remained outwardly a technical transformation of agriculture in the whole Western Region.

The techniques of biopower involving hierarchal observation, normalisation, and regulation (Hannah, 2000) were evident in the implementation of the WNLSS. The technique of hierarchal observation involved the spatial practices of territorial enclosures and land production. As one of the modernisation programmes of the MANR, the biopolitical project of the settlement scheme echoed the pre-existing spatial practice of territorial enclosures. The biopower of the regional government deployed previous colonially evolved spatial ordering of administrative space. For instance, the administrative map of Nigeria, 1960 (Fig.4.24), a revision of the *Map of the Colony and Protectorate of Nigeria, 1924* reveals the eight provinces of Western Nigeria. The spatial b/ordering of administrative provinces were the basis of transforming the envisioned government settlement scheme from a small pilot project to a regional project. Hence, in addition to the originally proposed four zonal centres, it was rational geographically to have one farm settlement in each of the bounded administrative spaces called provinces.

The Western Region consists of four agricultural extension circles, which are comprised of two provinces each. These were the Ibadan, Abeokuta, Akure and Benin Circles. These were the zonal centres initially planned for the pilot project but became supervisory centres as the project expanded over time and space. Consequently, the Extension Division of the Agricultural Services Department of the MANR operationally supervised the farm settlements of the WNLSS. The headquarters of the four extension circle officers are Ibadan, Abeokuta, Akure and Benin. After the creation of the Mid-West Region in 1963, the Benin circle was no longer part of the Western Region and there remained three circles. Therefore, the entire regional landscape was within a grid of agricultural modernisation. The extension staff of each circle consisted of agricultural superintendents, agricultural assistants and field observers (CO, 1958a, 54). The higher extension staffs were technical experts, mostly university graduates educated in Europe and North America, versed in the lore of modern agriculture.

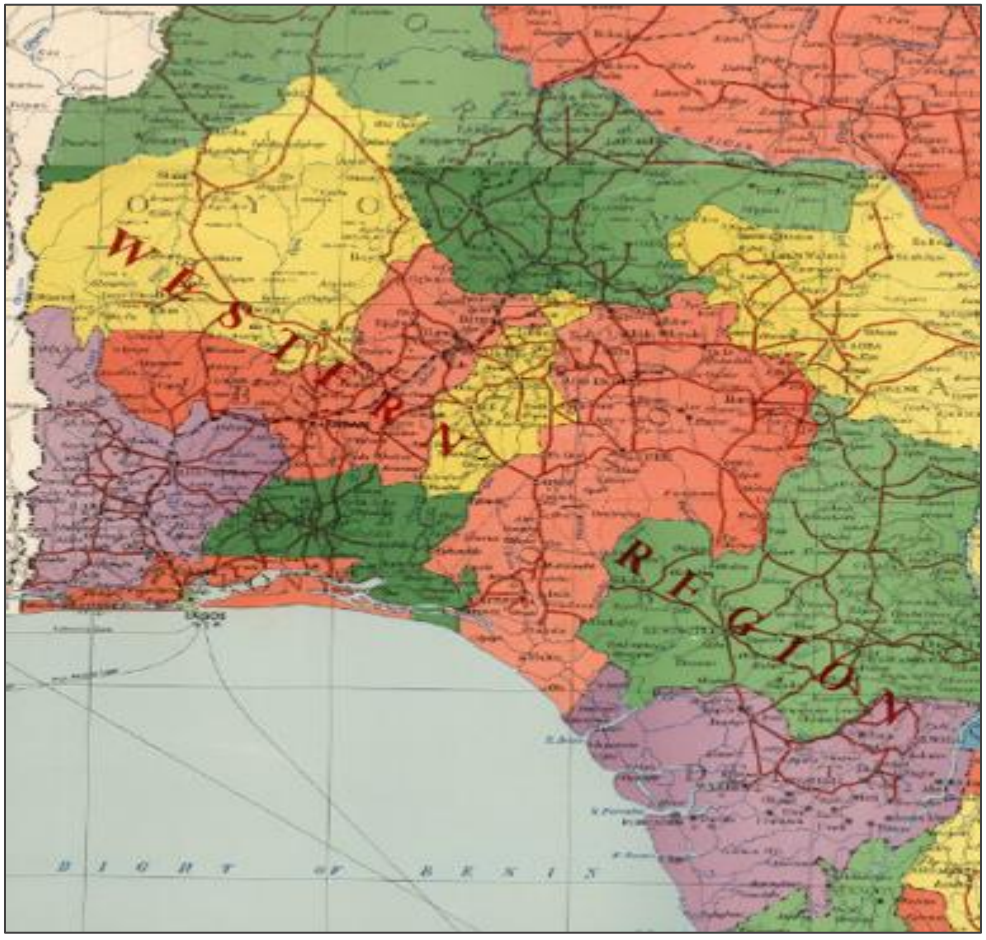


Fig.4.24 Eight Provinces of Western Region, Administrative Map of Nigeria, 1960, Scale 1/1,300,000. Federal Surveys, Lagos (Source: David Rumsey Map Centre, 2020).

These discourses of modernising agriculture targeted the entire agrarian landscape as well as the entire farming population. Unlike, the colonial experience of the settlement scheme, the geographical envisioning of this biopolitical project of agricultural modernisation covered the entire regional landscape, reinforcing its cooption into the multifaceted notion of *Olaju* of the average Yorùbá person. Thus, the ordering logic of administrative maps facilitated the visualised envisioning of the scheme. Likewise, the envisioned scheme of the regional landscape targeted the entire farming population.

> Under the proposed scheme the farmer himself will, under direction, be applying new techniques to his own plot of land. All aspects of the experiment will be known and open to him. He will thus be trying out and verifying for himself the effects of new techniques. He will no longer attribute the success to hidden factors or to causes beyond his means. As a result, gossip, interest and enthusiasm regarding these new techniques that have yielded so much success will spread from the cooperative farm settlements to neighboring private farms. This aspect of the cooperative farming scheme will in itself be a revolution in agricultural methods (MANR, 1959, 5, Cited in Kreinin, 1963, 542)

The spatial practice of land production involved envisioning, planning and allocation of land within the provinces. The envisioning of agrarian reform across the landscape shifted beyond provinces to the districts. As Kreinin (1963, 538) noted, "the government decided instead to establish 25 individual *Moshavim* scattered throughout the country - so that there will be at least one in each district". These envisioned farm settlements were partly encouraged by the perceived abundance of land for development. For instance, Adegeye (1974, 79) observed, "land was obtained from local chieftains and native authorities". These acquired lands were fundamental to the practice of land production and the selection of the settlers. For instance, Olatunbosun (1971, 418) observed, "The settlers were to come from an area within 30 miles of the settlement".

These acquired lands were then made into, a concrete, visible form through the production of large-scale layout plans and farm plot maps. The materialisation of the biopolitical project partly relied on visualised devices. Government staff, a fundamental part of the state governmental apparatus, was responsible for producing and translating

these cartographic productions of land into physical reality. As Crampton (2003, 143) observed, “maps are important means of constructing knowledge” and “for implementing policies to manage” governmental resources of population, individuals and the territory. The concern with land production through the cartographic organisation of land was crucial to enclosures that reflect, as Black (1997, 95-96) observed, a strong modernist tradition of the concern for land utilisation.

In the WNLSS, the techniques of normalisation involved spatial practices of classifying and categorising. By classifying, there was sorting of farm settlements into ecological zones of the Savanna, Central Cocoa Belt and Southern Rain Forest. For instance, in Fig.4.24, the Southern Rain Forest zone consisted of farm settlements existing or planned in the Colony, Abeokuta, Ijebu and Ondo Provinces. However, these ecological classifications also cut across political-administrative lines. For example, the districts of Ondo Province belong to each of these ecological zones. This was an ecological ordering of economic production. Hence, administrative and ecological maps had input in the production and reproduction of economic spaces. In addition, there was the categorisation of the scheme into typologies. The categorising began originally with two types of farm settlements but eventually became three. The MANR (1974, 9) observed that:

> Types A and B are those that were started by the Ministry of Agriculture and Natural Resources. They consist of farm plans with both livestock; arable and tree crop farm enterprises. They are designed with modern villages at the centre of farm holdings, each farmer’s house having an acre of home garden as backyard plot” (MANR 1974, 9).

In contrast, a sequel to “the Western Nigeria Official document No.8 of 1963, the Ministry of Economic Planning and Community Development (MEPCD) issued a white paper on a new type of Farm Settlement known as the Integrated Rural Development scheme or Type C” (MANR 1975, 22). Farm settlements become synonymous with modernising agriculture in the community development work. However, “these were originally planned to be mainly arable crop and livestock settlements without farm dwellings” (MANR, 1974, 10). This typology of the scheme was a form of institutional ordering with spatial effect. The Integrated Rural Development scheme (IRDS) were

mostly former Community Development (C.D.) projects, located in more remote rural areas. For example, in 1961, MEPCD established the Lalupon C.D. Project but transformed it into an IRDS in 1964.

The biopolitical techniques of hierarchal observation and normalisation became the basis of regulatory control of the scheme on the regional landscape. It resulted in a centralised decision-making on the management and field operations of the farm settlements. As Olatunbosun (1971, 428) noted, "all decisions relating to labour and finance come from faraway headquarters". However, the detailed workings of this regulatory control involving the consolidated farmland and the rational farming unit reflected the two levels of modern and disciplinary powers.

Space of Order – The Farm Village Landscape

The exercise of modern power, a combination of totalization and individualization on the regional agricultural landscape, was evident in the spatial practice of land production exemplified in each farm settlement. The individual farm settlement was considered "as part of an integrated agricultural network and the settler as a farmer within this network" (MANR, 1975, 91). I argue that cartographic visualisation was key in materialising the envisioned consolidated farmland – the modern cooperative farm village. As Harley (1988a, 284) argues, "the map may be regarded as a means by which", there was capabilities for the regional government to "more effectively control a tenant or peasant population". Hence, the techniques of modern governmental power involving hierarchal observation, normalisation and regulatory control stimulated the activity of totalizing and individualizing to produce the modern farmer.

These techniques of modern power mediated through cartographic technologies, organise the agricultural space, modify farming behaviour and manage agricultural production activity. The technique of hierarchal observation involved the practice of zoning and the practice of farmland holding by which space was "subdivided and allotted, with the help of maps" (*Ibid*, 285). Normalisation on the farm settlement involved the socio-spatial practice of the modern farm village but later included the classification of farm settlers. In addition, the technique of regulatory examination

focused on farm settlement activity at two spatial levels. These were the level of the modern farm village and the level of the individual farm-settler.

The operation of these governmental techniques and spatial practices relied on the organisation of space. Therefore, cartographic visualisation was paramount in the physical planning of each farm settlement. The planning of the initial twelve farm settlements resulted in farm layout plans produced, as aforementioned, by the Western Regional Surveys in the MLL, in collaboration with other government ministries. Kreinin (1963, 538) observed, "In the initial stage, thirteen dispersed settlements are being built. From 1963 to 1969, the plan calls for the establishment of ten new settlements every other year, with fifty farm units in each". Thus, there was a statistical framing of the envisioned agrarian revolution on the regional landscape, and imagined as visible spatial order exemplifying the modern farm villages.

I shall explore the mediation of these spatial practices of zoning and farm holding systems through cartographic rationalities of agricultural mapping using larger and medium-scale maps or plans. For example, the layout plan of Ilora Farm Settlement in Fig.4.25, produced in 1960, revealed the concern with the targeted population – the farm settlers. Ilora town was 40 kilometres north of Ibadan and 5 kilometres west of Oyo town in Oyo Province of the Western Region (currently Oyo State). The 8,009 acres Farm Settlement at Ilora was a "Type A" Scheme located in the savanna zone of southwest Nigeria. The cartographic gaze of this rationally planned agricultural space evoked a concern with compact farmland, the spatial zoning of farm holdings and social facilities.

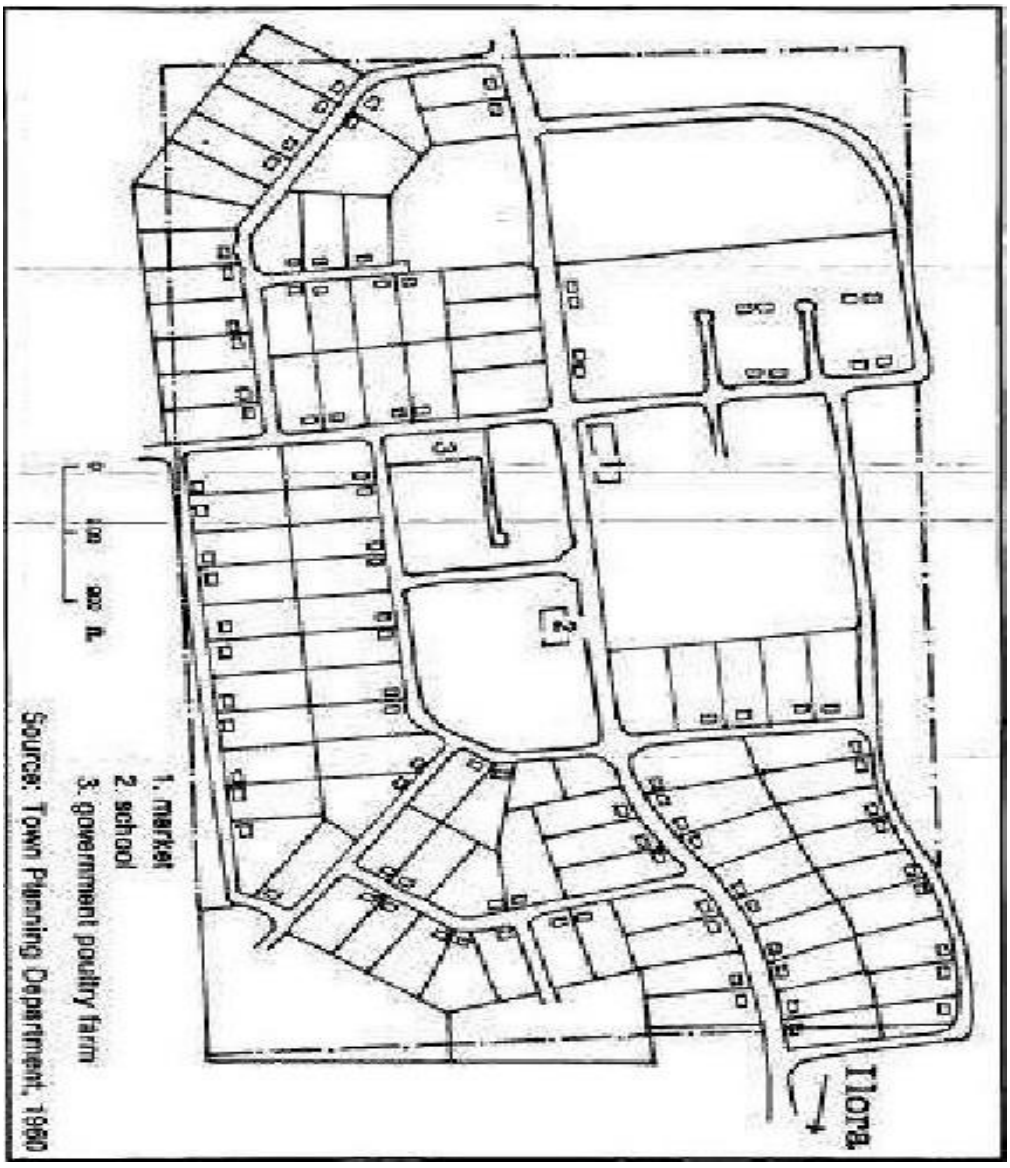


Fig. 4.25 A Plan of the Ilora Farm Settlement Layout, Town Planning Department, Western Nigeria Government, Ibadan, 1960. (Source: Spiro, 1986)

In Fig.4.25, the spatial practice of zoning was evident in the visualised spaces of the farm settlement. "Zoning… under the umbrella of a bureaucratically decreed unity" assigns, "the way functions are actually distributed 'on the ground' " (Lefebvre, 1991, 317). The zonal practice of land production on this farm settlement portrayed two zones – economic and service. The economic zone consists of several farm blocks. Zoning was a crucial feature of capitalist-oriented scientific agriculture. Pulliam (1948, 5) observed that "Farmers, if they expect to operate at a maximum profit and compete for their share of

domestic and world markets, must have their farm, buildings, and equipment arranged and designed for the highest possible operating efficiency". Hence, Fig.4.25 visualised a layout plan that reflected well-ordered arrangement and design which connotes this farm efficiency. Efficiency was a hallmark of modernity in economic production. This is an "economic principle", which states, "that resources should be allocated efficiently" (Grampp, 1950, 361). Besides, well-ordered farmstead within the layout do "not only determines the course of… operation and profit, but indirectly affects the value of … real estate by making the community more attractive" (Pulliam, 1948, 5).

Within the layout blocks of Fig.4.25 are several rectangular-shaped farm holdings. The arrangement of the land holdings followed fundamental principles of field layout in modern agriculture. Howe (1940, 4) argues, "The number of fields should be as small as the desired rotation and the topographic conditions of the farm will permit. The ideal arrangement is for the fields to be of about a uniform size and equal in number to the number of years in the crop rotation. Topography, public roads, or the general shape of the farm often determines size and number of fields with very little choice left to the farm operator". Fig.4.25 revealed farm holdings of similar sizes and the road system determining variations of farm sizes. In addition, there was a government poultry farm established to support farm settlers in the WNLSS. In an un-allotted block, at the centre of Fig.4.25, a text 'Three' (3) indicated a poultry farm. As MANR (1975, 22) noted "all types of settlement had poultry of varying sizes of between 96 and 192 layers to provide some earnings in the early years of settlements when crops had not come to bearing".

The service zone comprises social and administrative subzones or blocks. The social subzone/block visually describes the allocated spaces for facilities such as educational and commercial institutions. As illustrated, the social zone in Fig.4.25 included the two blocks labelled 'One' (1) and 'Two' (2). These two blocks are the location of the market and school respectively. The administrative zone was a space for the field experts, the human apparatus of state power implementing the modernising project. In Fig.4.25, residential houses in un-allotted blocks situated towards the northwestern part of the farm settlement landscape might suggest buildings reserved for these workers and possibly the settlement staff of the MANR. In addition, the block includes the machinery pool, post

office, and so on. A network of access and service roads, throughout the landscape, linked these land holdings, blocks and zones.

The heart of the economic zone in Fig.4.25 was the visualised spaces of the farm holding system. The farm plan visualised the spatial practice of the farm holding, which involved the plot system consisting of the farmhouse, the home plot and the cash crop plot. The land holdings revealed the intended allotment for settlers. As indicated, in Fig.4.25, there are one hundred and eleven (111) visible land holdings, but the target at full development at Ilora was 95 holdings (MANR, 1975, 52). In each of these layout holdings in Fig.4.25 are residential buildings for farmers, represented by polygonal symbols. Unlike the usual farmstead planning, where farmsteads were for a lone farmer, the farm settlement caters for a group of farmers. The visualised holdings embedded several farmsteads as part of a compact farmland in Fig.4.25. Therefore, Fig.4.25 revealed a visual contrast to problems of land fragmentation, fractioning and the larger problem of land tenure in traditional agriculture (Floyd, 1969).

In addition, one of the fundamental reasons for spatial ordering was that it made the use of mechanisation easier. For example, Pulliam (1948, 20), noted that "Fields 5 acres in size require 10 per cent more machine labour than fields 15 acres or more in size". Often indigenous farms operated by an individual were not more than 2.02 hectares (5 acres) in spatial extent. As Oluwasanmi (1957, 737) noted, "The impecunious peasant farmer with his three-acre holding and deeply ingrained habit of shifting cultivation appears a very unlikely vehicle for accomplishing the urgent changes desired in agricultural methods and agricultural productivity in tropical Africa". To capitalist ideologies of agricultural mechanisation (CO, 1953, 39), small size farms were an unprofitable practice. To the social welfarist moderniser, seeking revolutionary change, small-size farms exude a primitive economy (Harris, 1946). Hence, at Ilora farm settlement, the hectarage per farm family ranged between 10.1 and 28.6 (Okediji, 1969). Similarly, the shape of the physical field influenced the mechanisation practice (Bowler, 1986). For instance, "A rectangular field requires 20 per cent less machine labour than a triangular field" (Pulliam 1948, 20). Thus, cartographic visualisation aided the preparation of field arrangements to allow the use of farm machinery.

The conceiving of this type of state-space, the farm settlements of WNLSS, was also as spaces of social engineering (Scott, 1998). Hence, the normalising rationalities sought to evolve on the biophysical landscape a modern agricultural cooperative village. A compact farming unit, the visualised ordering of farm settlements, such as Fig.4.25, reinforced the notion of an idealised modern farm village. This logic of social engineering echoed in the practice of space discipline and practice of settlers' classification. Visualisations such as Fig.4.25 played a role in nurturing this social re-order mentality amongst farm-settlers. As Harley (1988a, 285) argues, "Maps impinged invisibly on the daily lives of ordinary people". The village landscape embodied spatial disciplinary practice involved in setting out a modern farming community, invoking a new social order that will fashion a new agricultural identity and conforming the rest of the indigenous landscape to modernity.

The visualised layout plan was part of the tools for creating a modern farming community. For example, the art of transforming the farm-settlers into a community through solidarity amongst settlers involved community work. Maps helped the administrative staff of the farm settlement to decide how to involve farm settlers in community work. As Bridger (1963, 95) argued, "the heterogeneous social nature of a new scheme must be overcome and people welded into a unit as soon as possible. Perhaps the best way to achieve this is by means of community development projects - by the building of schools, roads, wells, clinics, welfare centres". Although "Each settlement is a self-governing body" (Okediji, 1969, 45), the Circle Farm Settlement Officer was "responsible for the whole management" (MANR, 1967, 4). Therefore, maps and layout plans of farm settlements, such as Fig.4.25, was "a graphic symbol of centralised political authority" of the Circle Farm Settlement Officer (Harley, 1988a, 285). Besides, the compact farmland visualised on "the lines on maps, [were] dictators of a new agrarian topography, introduced a dimension of 'space discipline' " (*Ibid*, 285).

This spatial discipline also invoked the sense of self, a new social order that bequeaths the modern farmer identity. For example, the modern farm village landscape was a close replica of the Israeli Moshav model. As Okediji (1969, 43) observed, "the goal of the economic planners was to bring together settlers who had previously lived in close geographical proximity and, hence, who had shared - as in the *Moshav* system in

Israel - a culturally homogeneous background". However, there were challenges to creating emotional bonding amongst farm-settlers as planners envisioned. Okediji (1969, 43) noted that "at IFS [Ilora Farm Settlement], the official conditions for recruitment…. served to bring together settlers with various subcultural backgrounds". This heterogeneous composition raised problems but there were envisioned corrective training for these challenging circumstances. As Bridger (1963, 94) observed, "Distance … provide the best type of settler. Cut off from his traditional environment with distance making it difficult to return, or at least to neglect his farm, this settler is likely to be forced to succeed". External and internal distances helped to inculcate spatial discipline into farm settlers.

The modernist sense employing the logic of physical ordering of space, like in the late colonial era, sought to keep the modern farmer away from the practices of the traditional farm village. This modern sensibility required a new mode of social experience. Thus, providing modern social amenities was a fundamental element of the idealised modern farm village. Agboola (1979; 186) observed,

> central services such as schools, medical stations, churches or mosques, market stalls and shops, post offices, staff houses, processing equipment and machinery pools were located in the centre of the settlement. The home plots of settlers were grouped around this nucleus, and behind each of these there were arable plots varying in size from 1-2 hectares situated so as to facilitate the use of modern technology.

Therefore, these state-spaces served as concrete avenues of social education. The social zones and compact farm units were core elements of agricultural reform to evolve a new agricultural identity amongst the farm-settler population. The spatial ordering embodied in Fig.4.25 was a material indication of *Olaju*, for the people and a symbolism of *Afenifere* for the governing class. The modern farm village was a "political showpiece in agriculture" (Krenin, 1963, 543). To the subaltern populace, the WNLSS was interpreted as a spatial idea, '*Agbe Oko da Oko*' [living and working on the farm] – a notion similar and traced to, but different from the traditional farm-village, *Oko*. Hence, the indigenous farm village practice remained the background of subaltern comprehension of socialist agricultural modernity. This subaltern sense-making of the state-owned farm settlement scheme served the electoral politics of the social welfarist

political leadership. The notion of '*Agbe Oko da'Oko*' had its origin with the founding of the Upper Ogun Estate and the Iressa Farm Settlement Scheme in the mid-1950s. Therefore, the materialised ordering of Fig.4.25 symbolised both a governmental Othering of the indigenous agriculture and a constructive Othering of the subaltern understanding of the modernist scheme.

As I have previously shown, the governing class envisioned the modernist idea of the settlement scheme to spread through "gossip, interest and enthusiasm" to kick-start a wider agrarian reform (WNG, 1959, 5). Hence, Fig.4.25 was also a visual aid to the envisioned conformity to modern agricultural culture. It was a physical organisation of agricultural space to encourage emulation by the entire subaltern farming population. The regional government had envisioned that: "These amenities were to be provided on the pilot settlements on a scale that would not only attract educated boys to the scheme but serve as a model for neighbouring villages to copy, thus providing in the settlements some of the amenities of the cities" (MANR, 1975, 21).

Similarly, Oluwasanmi (1957, 737-738) observed, "the superior economic conditions of the farmers in the settlement schemes and on the plantations will act as a powerful incentive to the individual proprietor to emulate the example of his neighbours". Therefore, the visually mediated space, reflected in the visible ordering of the landscape, provided a model to 'subaltern farmers' far and near on how to conceive modern farming spaces (Thistleton, 1957, 6). This expected emulation was in terms of village planning and agricultural field pattern. This spatial ordering as part of the wider modernisation discourse was meant to drive the agrarian revolution to inculcate, well-ordered, 'indigenous' farm-villages on the regional landscape.

There was an introduction of the classificatory practice of farm settlers because "the young school leavers who were originally recruited into the Farm Settlements were too young to cope with the hazards which farming entails" (MANR, 1975, 23). Therefore, "attempt was made to correct this by recruiting more mature individuals with strong farming background directly into the farm settlement" (*Ibid,* 23). Cartographic technologies, such as Fig.4.25, provided the geo-surveillance of the farming population to judge the conformity of settlers to the set objectives of the state agricultural policy. For example, during the 1970s, as a general managerial challenge to the scheme intensified,

the Ilora farm settlement ranked a high priority settlement assessed for continuation (MANR, 1974, 23). Various maps of the Ilora farm settlement, I suggest, contributed to this classificatory assessment.

Therefore, the technique of regulatory control of farm settlement activity produced the modern farmer organised around these different visualised spaces. More importantly, the plot system of the spatial practice of farm holding provided state power with the means for detailed surveillance of individual farmers. It was a veritable tool of individualization and self-disciplining conduct. For instance, the normalising rationalities of disciplinary power "included the prompt removal of bad settlers from the farm settlements" (MANR, 1975, 23). Again, these calculative practices of modern power provided the regional government with the means to predict the economic productivity of the individual farmers. For instance, maps are integral to the statistical practices that permitted the predictability of state revenue from cash crop production. In addition, this practice assisted the predictability of loan recovery from the farm-settler population. Therefore, Fig.4.25 was part of the "graphic inventory, a codification of information about ownership, tenancy, rentable values, cropping practice, and agricultural potential", deployed by the regional government "to see their estates as a whole and better to control them" (Harley, 1988a, 285). Indeed, each plot of the farm holding, as I show below, exemplifies the state disciplinary power to produce the modernised agricultural citizenship that serves the purpose of the state.

Space of Discipline – The Farm Holding Landscape

Although Fig.4.26 was a Spot Map of Igbogila Farm Settlement in Abeokuta Province (currently Sawonjo Farm Settlement, Ogun State) in 1967, it reflected a similar visualisation of the spatial ordering of individual farming holding as subdivisions of the farm blocks of Fig.4.25. As Okediji (1969, 43) observed regarding Ogbomoso and Ilora Farm Settlements "In spite of the differences in the land area of both communities their physical layouts are identical and the number of farm families residing in them is about the same". Igbogila Farm Settlement was a Type 'A' Settlement like Ilora and Ogbomoso farm settlements. I argue that deploying state cartographic rationality was essential to

actualising disciplinary power to produce the modern farmer within the rational farming space.

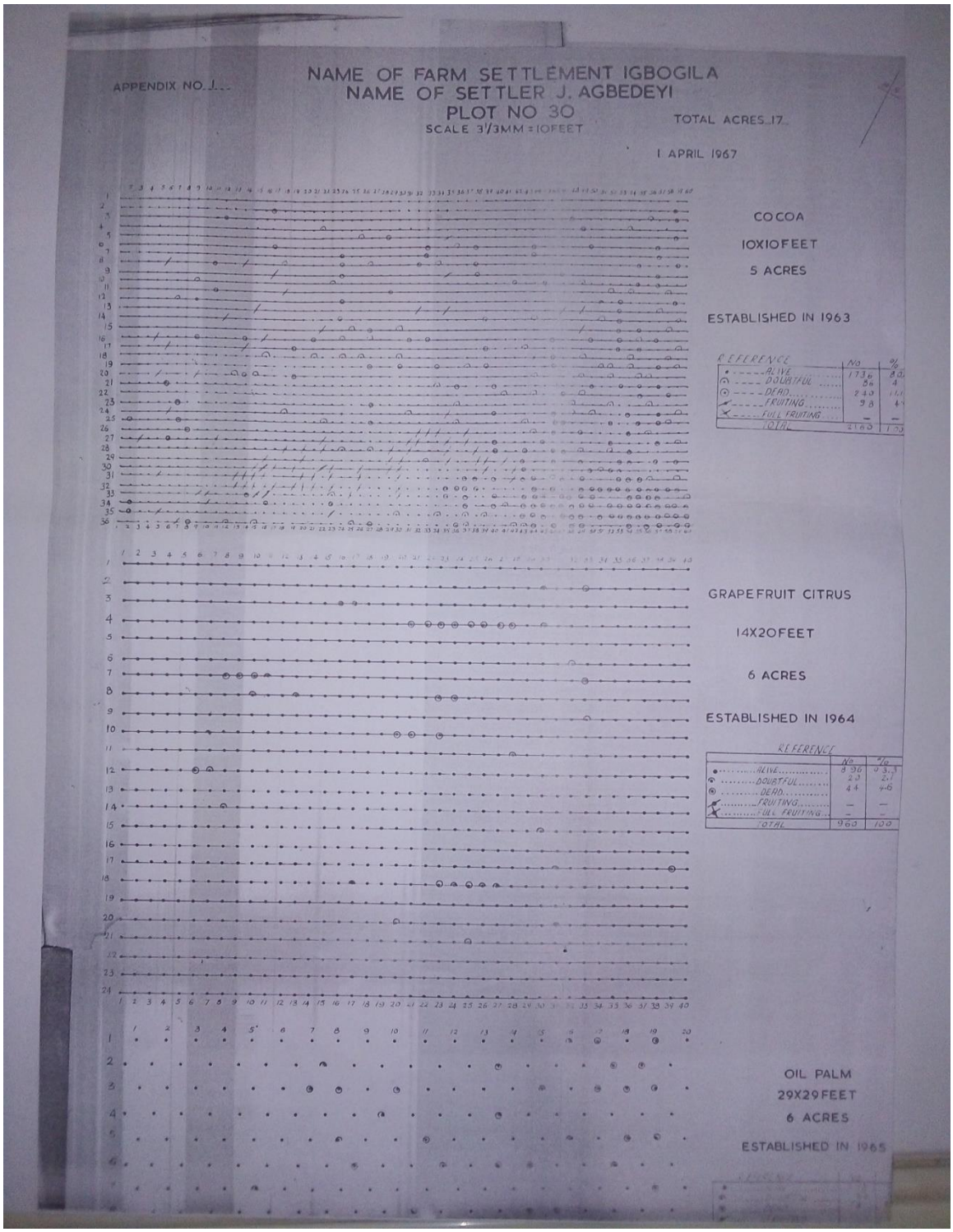


Fig. 4.26 Spot Map of a Farm Plot on Igbogila Farm Settlement, Ibadan: MANR, 1967, Scale 3⅓ MM to 10 Feet (Source: MANR, 2020)

Fig.4.26 visualised the farm holding landscape that makes up the heart of the agricultural settlement scheme. The 3,735-hectares (9,338 acres) Igbogila farm settlement targeted 200 farm holdings envisioned at full development (MANR, 1975, 54). Each farm settler cultivated an average of 8 hectares (20 acres) of land under the supervision of MANR extension personnel (Morss et al, 1976, 194). Eitan Israely, the F.A.O adviser, attached to the scheme (Kreinin, 1963, 538; MANR, 1967, 3) observed that:

> The Farm Settlement Scheme is based on Individual Settler's Farm Units therefore the Management must be based also on the Individual Unit. The attention for the individual Unit will insure the proper management of the Farm Settlement as a cooperative village and as a scheme in the region. The good management of the scheme will insure the efficient use of Government money and effects, and will educate settlers in modern farming methods.

This Spot Map (Fig.4.26) was a large-scale map that renders the array of farm holdings in Fig.4.25 in more spatial detail. The techniques of disciplinary power involving hierarchal observation, normalising judgement and regulatory examination were evident in the WNLSS. The physical space visualised in Fig.4.26 was where panoptic surveillance and normalising rationalities emerged to inculcate the idea of the modern farmer through spatial production (plot layout), spatial behaviour (farm labour) and spatial activity (cropping patterns) (Foucault, 1977).

The cartographic mediation of the observational technique at this lowest level of spatial production consists of three spatial practices: the farmhouse, the home or backyard plot and the tree crop plot. In production terms, the farm holding employs a plot system that consists of the home or backyard plot and tree crop plot, the latter being the fundamental interest of the state visualised in Fig.4.26. As aforementioned and shown in Fig.4.25, the allotted landholding of individual farm settlers included a farmhouse – another fundamental spatial practice. The visualised space of the farmhouse provided the regional government with the means to exert individual discipline on each farm settler. For instance, to inculcate the idea of the care of self on individual farmer through

housekeeping, etc. (Kelly, 2013). In addition, through the farmstead, state power aimed to achieve the idea of self-disciplining conduct amongst farm settlers.

The individual farmhouse was usually at a distance from the tree crop plot, but integral to the backyard plot. As Howe (1940, 4) observed, "Probably the first point to consider in laying out fields is to arrange them so one end is as near the farmstead as possible to minimise travelling distance to and from them". The spatial practice of the backyard plot was an integral part of the farmhouse since its location was behind the house. The allotted farm holdings in Fig.4.25 visually implied the inclusion of this backyard plot. Here the settlers devote their farm work to domestic food crop production. In addition, there was dedication on this farming plot to other forms of domestic production. For the married farmer, it was here that their wives adapted to the modern method of agricultural operations. As Kreinin (1963, 545) observed, "Wives of the settlers will have to be reoriented toward the performance of new roles".

In contrast, Fig.4.26 visualised the spatial practice, which I term, the 'cash crop plot'. The practice of cash crop plot, as aforementioned, was the core part of the farm-holding unit. The cash crop plot was devoted to crop production for export or use in local industrial manufacturing. In the nineteenth century, these crops were designated economic plants but cash crops in the early colonial period. Hence, it was a micro-space of disciplinary power where the subnational state desired to produce the best self-disciplining conduct of a rational economic man. The concept hypothesizes that 'rational economic men' act or behaves on self-interest to maximise their desires. These rational men possess all data to achieve this aim and their decision-making was based on cost-benefit evaluations (Steele, 2004). The moulding of farm settlers was to create the desire for cash crop production based on decisions from modern agricultural data. Therefore, cash crop plots received the highest devotion to scientific planning and cultivation of economic plants to achieve maximum productivity. The field pattern of the plot landscape reflected modern agricultural principles of field arrangement. For instance, Howe (1940, 4) posited that

> From the standpoint of efficiency in fencing and the operation of field machinery, the rectangular field as contrasted to the irregular shaped field is ideal. In general, the longer and narrower the field, the less is the time lost in turning with machines and the more fencing is required. The more nearly square the field, the

greater will be the power and machinery expense but the less fencing. Ordinarily a field that is two or three times as long as it is wide is satisfactory.

In addition, Fig.4.26 informed the map reader that the field cultivation was according to the specifications of scientific agriculture. For instance, the intense lines of the row and column of the cocoa planting were 36 feet x 60 feet on a 5-acre (2.02 hectare) allotment on the plot. Unlike Ilora farm settlement in the savanna zone, the allotted land for each farm settler at Igbogila farm settlement ranged between 6.06 and 8 hectares (Morss et al, 1976, 194). This size of land allocation was prevalent in the farm settlements in southern forest zone (MANR, 1975). These large farm sizes reflected the principle that the larger the farm sizes, the higher the standard of living, production efficiency and use of machinery (Grigg, 1966; 1984, 162-167). As Sir Binns (1955, 10) observed, "The size of a production unit is often closely related to the type and intensity of land use". In addition, these land allocations embody a reasonable farm size based on the rhetoric of economic of scale that posits greater economic efficiency at a larger size. Therefore, as a form of plantation type agriculture, the cash crop plot, must have a substantial production size (Udo, 1965). Besides, it was the epitome of the capitalist rationality of the rational economic man on the agricultural landscape (Gregory, 1994). By these cartographic techniques, state governmental power sought to train and monitor the farmer in their daily farm work.

The cropping pattern in Fig.4.26 revealed the concerns of state power with the continuity of a cash crop economy reflecting the colonial philosophy of agricultural extraction. The field arrangements of crops suggest a hierarchy of the crop importance to the state governing gaze. For instance, the 'intense lines' of the rows and columns of the cocoa crop connotes a higher commitment to the crop because of its foremost position of generating revenue or foreign exchange. Likewise, the well-spaced field of grapefruit citrus positioned below the cocoa revealed the belated trial of crop diversification in the cash crop economy of Western Nigeria in the 1950s and 1960s. In addition, beneath the citrus field was the section of the plot committed to Oil palm cultivation. Although agronomic requirements might demand wide spacing, there had been a relegation of the oil palm from its foremost position in the nineteenth century to a subsidiary one in the

early twentieth century. These crop patterns symbolise the ‘productive social welfarism’ of the AG political party.

As aforementioned, the primary concern for commercial opportunities in the Oil palm trade was influential in depictions of settlements and places associated with the maps of Daniel May, Alvan Millson and Frederick Lugard. However, cocoa superseded the oil palm as the highest revenue earner by the late 1940s (Niven, 1946). Hence, this geographic pattern of crop production ensured the sustenance and increase of state revenue. In addition, Fig.4.26 visualised a crop production pattern that reflected the background of the Western Nigeria industrialisation schemes at Ikeja and Ibadan. For example, there was a connection between the citrus production and the establishment of a fruit-canning factory at Ibadan in 1962. Likewise, cocoa crop production was integral in the government import-substitution industrialisation programme with the establishment of a cocoa factory at Ikeja in 1966 (Ojo and Ola, 1969).

Cartographic rationality also facilitated the technique of normalising judgement in the rational farming unit. I contend that this aesthetically pleasing layout mirrored normalising rationalities of state power, not only to monitor but also to inculcate the visual skill of spatial ordering. The map was an essential governmental tool for assessing the required skills of the modern farmer. Part of the practice of assessing each farmer involved developing his skills of field observation and visual appreciation, graphical knowledge and record keeping. The skill of field observation and visual interpretation was requisite for the settlers to understand the spatial ordering of crops. For example, the training of the settler included conducting field visits and taking notes, possibly with sketch drawings, of the agronomic conditions of the cash crops. In addition, graphical knowledge was a skill expected of the settler to master the art of crop patterning in a pleasing, attractive spatial order. For instance, attitudinal skills expected of settlers include making sketches of crop patterns for preparing the cultivation of new farmland on the plot. In addition, there was the requirement of record-keeping in developing field knowledge of crops on the plot. Spot Maps were integral to assessing these skills taught to the settlers.

The Spot Map was also a tool of corrective training, ensuring conformity to the prescribed and acceptable conduct of a modern farmer. The spot map visually facilitates

the moulding of modern settlers as rational economic men. Integral to the field strategy of individual farm plans, visualisation enables comparison, differentiation, and exclusion of farm settlers (Foucault, 1995, 183). For instance, Eitan Israely, the F.A.O adviser observed,

> The attention to individual farmer will help the good settlers and especially those that are interested and will eliminate the bad settlers by voluntary dismissal. The good settlers will be encouraged by the Government. They will lead the Farm Settlement to become an Independent Cooperative Farm Settlement by taking over the management responsibility from the Government (MANR, 1967, 3).

Indeed, in 1962 A. P. Takés, a UNESCO sociologist and development expert had concluded that the basic determinant of high settler turnover in the WNLSS was "the choice of the wrong type of settlers" (Cited in Okediji, 1969, 47). To mould the modern agricultural subject, the Circle Farm Settlement Officer, together with the settlement staff, had to focus on the regulatory task of planning and supervision.

The technique of regulatory examination involved the three spatial practices of observation, documentation and case. These disciplinary practices, as Foucault (1995, 184) argues, "establishes over individuals a visibility through which one differentiates them and judge them". The spatial practice of observation was the most detailed deployment of geo-surveillance of farm settlers through 'space discipline' (Crampton, 2010; Harley, 1988a). "Their visibility assures the hold of the power that is exercised over them" (Foucault, 1995, 187). The field technique of panoptic surveillance, evident in the cash crop plot, reflected in Fig.4.26. This spatial discipline required constant monitoring of the plot, which revealed the activity of the individual farmer. There are three managerial steps in the individual settler's farm unit: planning, supervision and loan payment. All the steps are applicable with modifications, as aforementioned, in the evolutionary stages of the farm settlement scheme. However, the initial focus of operation on the settler's unit was planning (MANR, 1967, 5).

> The Plan is the basis of the work throughout the year. It will provide the details of the operation and kind of operation, timing and the man-days required from the settler for the particular operation. The plan of

activities for the settler in his holding will help both settlers and Government staff in the developing, maintenance and efficient management of the holding.

The Farm Plan consists of the three elements; these are principles of the plan, detailed requirements for the plan and steps of implementing the settler's unit. For example, one of the detailed requirements of the settler's unit plan was the knowledge of the "physical situation in the farm unit". Therefore, the spot map was a mandatory requirement for operating or working the rational farm unit. "The physical details and number of Acres will appear on the spot map….Special conditions like swamps or rocks will be shown also on the spot map. The specific conditions will change the labour standards required for the particular holding" (MANR, 1967, 7). The visualisation of the conditions of the physical landscape helped to modify man-day labour on farm holdings. Hence, entrenched in the actualisation of farm work were cartographic rationalities of legible and demarcated spaces. The monitoring of the settlers through visualisation at the plot level (Fig.4.26) complemented observation at the village landscape level in Fig.4.25.

Foucault (1995, 189) argues that "the examination that places individuals in a field of surveillance also situate them in a network of writing", through, "methods of identification, signalling and description". The practice of documentation also employs maps as reflected in Fig.4.27. As indicated, the map informed the reader that this farm settler was operating Plot Number 30 on the Igbogila Farm Settlement. In addition, the map provided crop histories as marginal information. The 'Reference' on the left-hand side of the map provided information concerning the agronomic conditions of each crop. For instance, a five-field classification depicted the 'knowledge' of the conditions of the crops on the farm – alive, doubtful, dead, fruiting and full fruiting. Each of the five classes had several trees assigned to it. For example, in the 5-acre cocoa zone, there were 1,736 trees alive amounting to 80 per cent of the cocoa farm. Therefore, visualisation was crucial to the specific spatial discourse of the cash crop plot.

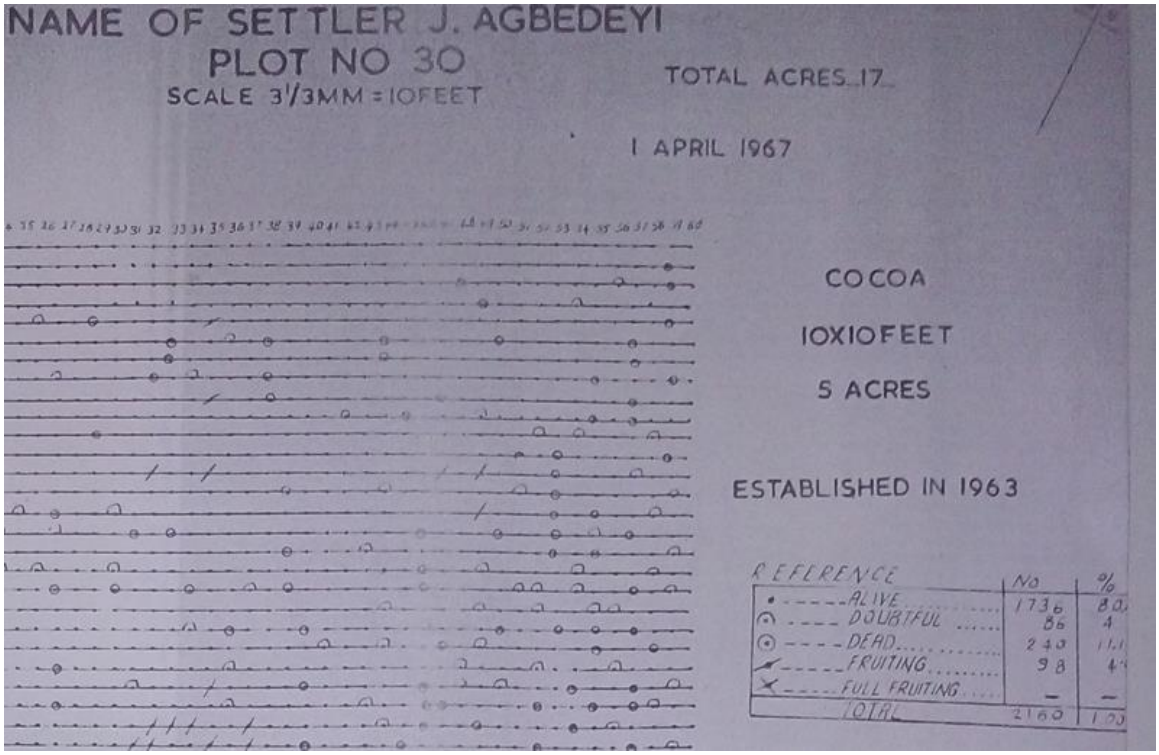


Fig.4.27 Detail – Spot Map, Igbogila Farm Settlement, 1967 (Source: MANR, 2020)

Spot Maps, together with other documentary practices, instituted the daily routine of work on the plot. For example, the spot map facilitates knowledge regarding the productive labours of the individual farm settler. Man-day labour of the settlers were assigned to different crop sections, rows and column of trees using the map and field sketches as guides. Besides, the calculative practice of regulatory examination through this means was able to predict crop production, loan recovery and field management. In addition, the cartographic space in Fig.4.26 visualised the calculative techniques of classifying and timing tree crops. For example, the cropping pattern from the top of the plot downwards visualised portions devoted to cocoa, grapefruit citrus and oil palm. In addition, the cartographic gaze included temporal information of the cultivation of the crops as 1963, 1964 and 1965 respectively. From the right-hand corner of the map, the textual information revealed that the three crop farm sections totalled 17 acres of land (6.8 hectares).

Regulatory examination hinged on documentary practices, Foucault argues, "makes each individual a case" (Foucault, 1995, 191). The practice of the case was devoted to examining individual farm-settler. For example, the affixed name on Fig.4.27,

"J. Agbedeyi", was the object of knowledge whose individuality reflected through the particularity of the documentary practices like this map. Fig.4.26 was the plot of this farm settler at Igbogila Farm Settlement with details of his name, plot number and the visible landscape of cash crops revealing he was responsible for this plot of 17 acres. This particular Spot Map, a plot layout of the existing crop pattern of the farm-settler, J. Agbedeyi, informed the governing authority at different levels of the biopolitical project the kind of subject the particular settler was. The Spot Map of this particular settler in WNLSS manuals and guides reveals that he was a 'model farm settler' that state power sought to produce on the regional and modern farm village landscapes. Despite several documentary methods, maps were integral parts of this modality of power in the process of subjectifying individual farmers (Kelly, 2013).

The cartographic gaze in Fig.4.26 visualised a rational farming unit where panoptic observation and normalising rationalities converge in the technique of regulatory examination to produce a modern agricultural subjectivity. This cartographic production of land on Igbogila Farm Settlement exemplified the disciplinary power of the state – the governing elites of the WNG and techo-bureaucrats of the MANR, MLL and other contributing regional government ministries. The spatial practice of farm holding and plot systems espoused the heart of scientific, rational methods applied in agriculture. As other maps deployed, this Spot Map was a key contributor to this application of the scientific method to produce a rational farming unit. A spot on the earth's surface was a recognised and marked unit of land. Thus, the map evokes the favoured 'Order-on-the-Land' (Balogun, 1989; Pickles, 2004). These Spot Maps instilled the state agricultural imaginary, not only on the biophysical landscape but also upon the agricultural subjects.

4.3.3 Effects of Cartographic Technologies through Governmental Power on the Modern Agricultural Landscape

Ettlinger (2011, 548) posited, "from a Foucauldian perspective there is no presumption of effectiveness of a technique of power". I argue that were divergences over time in the relations between the techniques of modern power and the employment of cartographic technologies in the service of the modernist mentalities and practices of the farm settlement scheme. The biopower of government technologies sought to bring the

idealised agricultural space into reality – to materialise the imagination of the state economic power. An intended objective of the geometric ordering mediated through maps was a rational farm pattern. However, there have been contestations to this spatial ordering on the farm holdings. In contrast to the rigid application of the geometrical layout to cash crops mediated by large-scale maps and plans, farm settlers contested the geometrical systems on the home plots. Okediji (1968, 28) observed that:

> When dissatisfied with the prescribed crop-rotational system, they formally forwarded their complaints to the Change Agent System [WNLSS] through their Line Officers suggesting how they could increase their productivity. They questioned the system of devoting one-quarter acre of land to the cultivation of vegetables and fruits on background holdings when the harvest was too much for the consumption of each farm-family… Lack of profitable market and heavy labour investment also made farmers to question the insistence of the Change Agent System on the cultivation of certain crops such as cotton and tobacco. And settlers seemed to be more enthusiastic than Line Officers in their desire to increase the level of production of the most needed crop – maize. They asked for more acreage of land than was usually allotted for its cultivation and advocated the adoption of biannual cropping system widely practised by local farmers and which some senior Line Officers conceded could be integrated with the communities' crop rotational system.

Nevertheless, there were positive consequences of the visual logic of spatial ordering. For instance, the communal self-disciplining conduct manifested by the settlers' agricultural committee on the ability of individual farmers to conform positively to the spatial ordering mediated by the spot maps and geometric farm plans. Okediji (1968, 28) showed that members of the settlers' agricultural committee protested in a letter to a senior Line Officer concerning ridge-making operations "on the holdings of some farmers", displaying technical proficiency in their spatial knowledge of the field system:

> We are sorry to draw your attention to the system of making ridges at settlers' [farmers'] backyard. Ridges are made along the slope whereas they should be made across the slope to save unnecessary "washaway". This system is absolutely wrong mechanically or scientifically. Ridging along the slope give following bad effects: When rain falls, water flows with a gravitational force thereby carrying away nutrients in the soil. The roots of crops are exposed outside thereby reducing the yield.

Thus, in some cases, the state achieved the intended objective of making farmers utilise the agricultural space rationally. Another intended objective of visible spatial ordering was the adoption of maps as a valuable, everyday tool in agricultural activities. However, the routine use of graphic knowledge and maps as tools of modern agriculture did not materialise amongst the farm settlers. Perhaps, employing maps and plans in agricultural work by farmers, even by Western-educated farmers, were in tension with everyday, verbalised, local spatial knowledge. An additional intended objective that did not materialise amongst the farming population was the adoption of modernist geometric ordering on traditional farms.

Nonetheless, a negative consequence of this spatial ordering in the agricultural economy, which visual discourses of maps contributed in its mediation, was the binary of the reformed Other and the re-production of the rural Other (Sibley, 1995). The reformed Other, as used here, refers to farmers and farming landscapes created in the image of modernist's likeness. As Hill (1977, 30) observed, "those who did stay in the farm settlements became a public sector salariat supported by the government. They saw themselves not as farmers but as members of a distinct group of farm settler". The agrarian revolution envisioned by the subnational state through the settlement scheme had few positive impacts on the agricultural economy at the end of the 1960s. As Adegboye et al (1969, 231) observed:

> It is still safe to say that the peasant farmers have not been generally exposed to the commercial possibility of agriculture since there has been little emulation of either the organizational set-up of the farm settlements or their production methods. In the same vein, it appears that the government has not in fact succeeded in making farmers out of the settlers themselves.

Indeed, the settlement scheme suffered a decline in the 1970s (MANR, 1975). This decline of productive economy led to the permanence of the aforementioned binary on the agricultural landscape. Consequently, visualisation aided the agro-economic difference between the modern agricultural subject and the subaltern agrarian subject. As Harley, (1988a, 285) observed these maps and plans "*were* designed to make *more* permanent a social order in which there were" modern farmers and traditional farmers "for which the territorial division of land was the basis of status". Although there

was a simultaneous decline in the agricultural economy, and state cartographic mapping after the early post-colonial era, the statist vision of social engineering was receiving a new impetus in the post-neoliberal period.

4.4. Conclusion: State Maps, the Social Production of Space and the Legacy of an Othered Landscape

In this chapter, I employed a sociocultural cartographic approach to argue that state maps are social constructions. In doing this, I made two principal arguments. First, the cartographic representations of colonial space are key devices of territorialisation but also cultural frames of the economic landscape. This was evident in the objectifying cartographic gaze of capitalist modernity that incorporated indigenous spatial knowledge as economic Other in unofficial maps. Again, the cartographic gaze of the colonial space introduced standardising and universalizing pictures that displaced the spatial representations of indigenous agrarian space while intensifying the capitalist viewpoint. This was evident in the partially visible and invisibility of the indigenous agrarian landscape on state maps revealing a colonial Other. In addition, during the inter-war period, state cartography reflected the rationalities of capitalist modernity in the rural-urban dichotomy, denigrating the agricultural space and constituting a rural Other. Consequently, in the late colonial period, regardless of (re)production of large-scale maps, cartographic marginalisation of a rural agricultural landscape in modernist political-economic thought naturalised the agrarian Other. Cartographic symbology of state maps constructed a territorial space that preceded the physical reality and subsumed the indigenous agrarian landscape. Therefore, colonial cartography was a subjective practice that bequeathed a space of difference.

Second, there was the embedding of state maps as power-knowledge in the techniques and strategies of governing space. Cartographic reasoning framed the economic difference in the agricultural landscape. This reasoning focused on the indigenous agricultural land use system as the development Other. These cartographic discourses as stereotypical colonial knowledges drew attention to an irrational, disordered and unappealing sight of indigenous farmlands. The stereotyping of peasant land use preceded the visual logic of ordering the agricultural landscape in the image of capitalist

modernity. Therefore, there was a modernist justification for developmental intervention that visually articulated rational planning, rational landscapes and rational farming units. The modernist logic of rational agricultural landscape became an internalised vision of the African governing class and post-colonial policy-makers. Cartographic rationalities deployed as technologies of government were to know, order, and discipline the identities of the agricultural landscape and subjectivities of the farming population. Besides, the state ordered landscape became a taken-for-granted geographical knowledge and reproduced a space of difference that created the dualism of reformed Other and rural Other. Therefore, these cartographies of geographic exclusion and social control revealed ways in which the colonial and post-colonial states employed governmental technologies to achieve their political rationalities.

The intersection of literatures in sociocultural cartography, postcoloniality and governmentality provides a useful frame of reference for my exploring of the history and politics of state maps. I employed a combined Foucauldian analysis to engage cartographic discourse as a critical analysis of territorialisation and the agricultural landscape. In addition, I contend that my analysis of cartographic text as economic discourses adds to a balanced cartographic history in sub-Saharan Africa that has remained partly unexplored. This aligns with the argument of McGowan (2014) for a more balanced cartographic history of Africa. A critical deconstructive reading of state maps disrupts the teleological histories of cartography of Nigeria already written and contributes to what Crampton (2001, 701-702) described as "map history as evolutionary, but not a progression" and "how maps are strategies and relations of power-knowledge".

Again, my discursive examination of state cartographic text as history and politics adds to findings in literatures on postcoloniality. These postcolonial engagements challenge the taken-for-granted geographical narratives of scientific maps and mapping as objective representations. This adds to the geographical writings on excluded, Othered knowledges, drawing attention to hidden geographies of agrarian production (Pollard et al, 2009). Besides, the focus on the cartographic landscape in the context of the agricultural economy aligns with the views of how cartographic spatial production "have coded subjects and produced identities" (Pickles, 2004, 12). Consequently, this chapter

also complements efforts at 'decolonising' post-war development geographies by showing the effect of state knowledge production on social practices.

In addition, my exploring of maps in this chapter as political technologies of government adds to the literature in cartographic governmentality. As Rose-Redwood (2006, 472) contended, "if disciplinary power has the individual body as its object, 'biopower' attempts to regulate and manage entire populations". I have shown cartographic technologies embedded as regulatory practices in producing the modern identity of individual farmers and collective agricultural subjectivities on the Yorùbá regional landscape. As Crampton (2003, 141) observed, "discipline of the individual and regulation of the population are characteristic functions of power in modernity". Modernity in Yorùbáland was twofold, the external perspective of economic growth and the indigenous hybrid of enlightenment that complemented the adoption of Western modernity. Thus, this chapter contributes to the knowledge of the tactical deployment of cartographic power as an art of governing in the state production of modern subjectivities and identities on the post-colonial agricultural landscape.

The production and governing of the agricultural landscape reveal the varying degrees of state bureaucratisation of space. As Lefebvre (1991, 49) argues "The dominant form of space, that of the centres of wealth and power, endeavours to mould the spaces it dominates (i.e. peripheral spaces), and it seeks, often by violent means, to reduce the obstacles and resistance it encounters there". What do these bureaucratic practices tell us about the all-encompassing power of state-produced mental space? As aforementioned in the theoretical review, social constructionism draws attention to knowledge to increase our awareness. In increasing our political consciousness, I argue that three processes are involved in the subjective making and remaking of the indigenous agrarian landscape as state-space through "capitalist modernity". First, the cartographies of state power rely on small-scale maps in the production of state-space. Second, a post-colonial spatial order is inscribed through maps heralding taken-for-granted geographical knowledge as normalised space; and finally, the self-propagating vision of a colonising power is based on the regulatory cartographies of Othered rurality.

Small-scale state maps often constitute (post)-colonial state imaginative geographies, which manifest exclusionary power through the suppressing practices of

scalar representation, which intensify the need for a rational landscape in the image of state visions. State maps are fundamental devices to inculcate a particular form of popular state imaginative geographies. State imaginative geographies are "specific discourses and the practices associated with them for continued power and cohesion" (Radcliffe, 1996, 25). These cartographic practices conceived the world from a utilitarian frame of reference (Scott, 1998). In the maps I examined state power ensured the visual imagining of the landscape through the frame of capitalist ideologies. As Radcliffe (1996, 26) notes, "The iconography of the map enters into discourses of national identity, and as the expression of the will to order of nationalist development plans". In addition, Wafer (2011) demonstrates the developmental state is a powerful geographical narrative permeating the body politic to the obscuring of informal economic sector whose imaginations intersect that of the state in specific nodes of cultural encounter. Hence, the developmental state is very reliant on the visual imagining of space that is often a function of the representations at different spatial scales.

Scalar representation refers to the amount of details shown based on particular purposes with exclusionary consequences. In the maps I explored the varied geographic imaginations of the official landscape reflected in particular interpretations of agricultural imaginaries and resultant agricultural policies of the state. These state economic geographies required suppression of perspectives outside the state's frame of interest (Scott, 1998). As Monmonier (2005) observes, "Most maps are massive reductions of the reality they represent, and clarity demands that much of that reality be suppressed". In addition, the conformity to tightened specifications of state spatial production through scientific rules often led to the emergence of rational landscapes. Rational landscape, as used here, refers to the logic of configurations and orientations based on geometric reasoning. For instance, I have shown that cartographic imaginations of state power mediate the discourses of control and regulation. As Gregory (1994, 53) observes, in the work of Peter Haggett, the conception of order is entrenched in the "series of abstract geometries: movements, networks, nodes, hierarchies and surfaces".

State cartographic power engraves the uninscribed space into a known space through the imposition of the Cartesian grid. The grid does not only bring official spatialities into existence through worldling but also infuse a territorial ordering in

society and its exhibitionary power explores these ordered, spatial knowledges for political-economic interest. This cartographic inscription as Spivak (1985) has shown in her archival examination of British colonial power in India involves the process of worlding. The notion of worlding, Ashcroft et al (2007, 225) explained, is the "way in which colonised space is brought into the 'world', that is made to exist as part of the world". The unofficial and official state maps I examined in this thesis, did not simply represent territorial knowledge of the indigenous landscape but also produced a geographical reality suitable to the economic opportunities of British gentlemanly-capitalism (Cain and Hopkins, 1986). Hence, Huggan (1989, 122) asserts that the colonial cartographic discourse:

> suggests that the relations between the 'natural' and the 'imitated' object which inform the procedures of cartographic representation are motivated by the will to power and, further, that these relations ultimately pertain neither to an 'objective' representation nor even to a 'subjective' reconstruction of the 'real' world but rather to a play between alternative simulacra which problematizes the easy distinction between object and subject.

Indeed, one could draw a correlation between Spivak's examination of the East Indian Company and the Royal Niger Company in the contribution to systematic and scientific cartography while working for capitalist modernity in commerce and administration. Hence, this affirms the argument of Kalpagam (1995, 88) that the (post)colonial space from its conception was a revenue-bearing exercise.

The cartographic representation of space enacts a new territorial order. As Van Houtum et al (2005, 3) explain, "territorial b/order is a normative idea, a belief in the existence and continuity of a territorially binding and differentiated power that only becomes concrete, objectified and real in our own everyday social practices". In the maps I examined a form of political-economic b/ordering, an internalised economic territorialisation, initiated through the discourses of compact macro-agricultural space and rational micro-agricultural spaces are evident. This economic bordering refers to the attempt to materialise a territorially binding rational, aesthetic agricultural power on the landscape.

The taken-for-granted knowledge of the territorial order becomes a gaze of an exhibitionary power of state geography. The notion of world-as-exhibition refers to an enframing process that has become the characteristic of modernist ways of seeing and knowing the world by setting things up as objects to be viewed, experienced, and investigated (Mitchell, 1988). Hence, the objectifying visual gaze of places and people. "As a result" Mitchell (1988; xiii) argues, "the exhibition appears not just to mimic the real world outside but to impose a framework of meaning over [it]". In the maps I examined this exhibitionary power of the state cartographic representation "ordered and organised, calculated and rendered unambiguous", the indigenous landscape as the basis for future visions of state power's attempt to reshape the landscape and the citizenry (*Ibid*, 13). Thus, the visible spatial ordering of the agricultural landscape was an exhibitionary power of the succeeding post-colonial governments in attaining the goals of modernising rationalities. This mental space encompassed the complex social reality of subjects and citizens.

State power having obliterated, subsumed or Othered previous spatial systems and configurations places the entire physical space within its frames of spatial control. These governing frames are evident in the notion of governmental spaces, geo-surveillance and statist cartographic visions. Governmental spaces are specific physical spaces conceived as techniques of state control inscribed upon a place. In the state maps, I explored the direct control of the state led to varying levels of imagining the landscape. The maps had helped to normalise the organisation of state agricultural space as a taken-for-granted knowledge. As Scott (1998, 187) argues, "Contemporary development schemes…. require the creation of state spaces where the government can reconfigure the society and economy of those who are to be 'developed'. The transformation of peripheral nonstate spaces into state spaces by the modern, developmentalist nation-state is ubiquitous and, for the inhabitants of such spaces, frequently traumatic".

In addition, the attempts to rationalise and control the spatial behaviour of the society have always required consistently monitoring of space. Geo-surveillance, based on governmental surveillance, as Crampton (2010, 113) notes, "can be defined as the surveillance of geographical activities". In the maps I explored geo-surveillance of the agricultural landscape was deployed as a response to the notion of backwardness and

directed by state policy towards the production of new subjectivities and identities. Hence, the normative model frames the spatial thoughts of citizens, which reproduces the space of difference. As Crampton (2003, 146) notes, cartographic rationality "has become more pronounced with the development of new technologies and expertise" but "still adheres to its founding principles". A case in point is the cartographic classifying principles for the managing of economic resources in the modernisation process manifested on the state agricultural landscape.

Again, there are forethought entrenched in the post-colonial state rationality that frames the landscape with a consistent objectifying cartographic gaze. State cartographic visions are utopian visualising of developments as geometrical environments usually with the aid of geo-cartographic maps (Cosgrove, 2008). For example, I have shown from the maps explored that modernist envisioning of economic space propels the depictions of the agricultural landscape. They tend to fill the gap of economic aspirations with newer versions of capitalist imaginary employing visualisations that ensure compliant subjects (Baker, 1992; Huggins, 2013). Nonetheless, as Lefebvre (1991, 354) observes, "Mental space - the space of reductions, of force and repression, of manipulation and co-optation, the destroyer of nature and of the body - is quite unable to neutralize" the alternative visions and representation "within its gates". Therefore, my exploration of maps and mapping in the next chapter engages the continuous impact of visual representations of state power on the material world and its contestation on the agricultural landscape.

CHAPTER 5 THE AGRICULTURAL LANDSCAPE: THE SOCIAL CONTEST OF CAPITALIST MODERNITY AND SUBALTERN IMAGINARIES

5.1 Introduction

Representations are principal sources of reproducing economic landscapes. Visual representations of agricultural landscapes are key strategies in transforming economic ideologies into concrete and visible forms (Giraud and Charles 2013). In particular, the state employs maps in emphasising its modernising ideologies of the agricultural settlement scheme (Baker, 1992; Benjaminsen, 2021; Lawson, 2007). On the other hand, verbalised representations have sustained comprehensions of agricultural landscapes amongst subaltern groups over time. Specifically, there has been a continuous modified reproduction of the traditional farm village to ensure socio-economic sustainability (Fabricant, 2012). Representational practices that shape the dominant and subaltern ideas are crucial elements in the socio-spatial struggles of the post-colonial agricultural economy. Hence, how have multiple representations of space reproduced the agricultural landscape revealing different logics of developmental visions? This chapter explores the reproduction of landscape representations in Southwest Nigeria and the emergence of the Community-owned Farm Settlement Scheme (CFS) on the agricultural landscape in Oyo State. To do this, I conduct a comparative examination of the representational legacies of state agricultural settlement schemes and subaltern agrarian knowledges.

Drawing on Lefebvre's unified concept of space (Lefebvre, 1991), I engaged the evolution of the agricultural landscape of Yorùbáland as spatial practices. Therefore, I used the concept of landscape to explore the different logics of spatial practices in the post-colonial agricultural space (Wylie, 2007). Employing this concept through the notions of representation, communication, and ideology (Danesi, 2004; Baker, 1992), I examined historically the social contest of agricultural landscape representations. This historical contingency on the landscape does have a geographical context to it. In exploring these issues, I argue that the agricultural landscape is a site of struggle of contesting spatio-economic imaginaries made evident in their representational practices (Cosgrove, 1998, 54). In addition, I contend that a hybridised logic is manifest in the CFS aspirations (Mitchell, 2005).

This chapter highlights the social contest of agricultural landscape representations evident in modernist master-narratives and subaltern epistemologies of agricultural organisations. I examined

in the second section the agricultural settlement scheme as a statist vision of the agricultural landscape in Southwest Nigeria. The state visual perceptions of the rational agricultural landscape reflected ideologies of capitalist modernity (Baker, 1992; Lawson, 2007), becoming taken-for-granted knowledge that sustains a space of difference, anti-political economic imaginations of subaltern agriculture and demonstrate an inevitable rationality of neoliberal agricultural development (Sibley, 1995; Walters, 2010). In contrast, I explored in the third section indigenous representations of the agricultural landscape in the Greater Ibadan hinterland and its responses in moments of cultural encounter with capitalist modernity (Ashcroft, 2009; Williams, 2021). This visual and discursive imagining of the agricultural landscape drew on mainly oral practices. This subaltern lack of visual conceptualisations of the alternative agricultural space demonstrates an agricultural politics of visibility, in which the dominant narrative has an obvious advantage.

5.2 Modernist Representations of the Agricultural Landscape in Southwest Nigeria

I argue that visual representations are key media in producing and reproducing notions of a rational agricultural landscape in the image of state-sanctioned capitalist modernity. This visual process of (re)producing a modernist world picture of agriculture defined the rational landscape, discarded old modern landscapes, recreated new landscapes, and generated the anti-political-economic imaginations of subaltern agriculture. At the inception of the post-colonial period, "disciplinary knowledge of spatial science was systematically connected to disciplinary power" (Gregory 1994, 63) to effect social change on the physical landscape. It was a change that intensely sought to modernise every facet of the post-colonial space, including the agricultural economy. Therefore, representational practices of disciplinary knowledges of the social and natural sciences (Cosgrove, 2003b; Radcliffe, 1996, 25; Olwig, 2009, 238) contributed to the "discursive triangle" of power, knowledge and everyday spatial practices. It was a discursive triangle between state power, disciplinary knowledge and the colonisation of everyday life. This triangular discursive power gave a visible, concrete form to spatial order on the landscape, which endorsed early post-independence state capitalism, sought to perpetuate capitalist modernity through educational indoctrination and valorised neoliberal imaginaries as inevitable.

5.2.1 *Cartographic Representations and the Early Post-Independence Agricultural Settlement Scheme*

I contend that the deployment of disciplinary knowledges of spatial sciences contributed to the visual production and reproduction of a spatially ordered landscape. A consistently reproduced image of a rational landscape was the farm settlement scheme (Olatunbosun, 1971; Okediji, 1969). Some geographers, soil scientists and other development experts presented their contribution to the modernisation discourse, as apolitical, objective, instrumental knowledge but they helped reinforce the politics of high modernist social engineering (Scott, 1998). The academic and developmental discourses of a rational economic landscape employed cartographic knowledge but produced very few visual imaginings of the rural economic space focusing on traditional agriculture. Several maps illustrating different geographical studies constitute an array of modernist economic mapping of the ordered agricultural landscape.

This cartographic gaze of an ordered landscape framed the need to retain world market competitiveness, engage surplus manpower, validate the need for soil surveys, and continue espousing rational agricultural planning on the rural landscape. Even when besieged with an undeniable crisis, this gaze still represented the agricultural landscape as a natural order of things (McGowan, 2013). As noted in Chapter 4, these scientific perspectives of the agricultural landscape are not incorrect imagery, but a partial viewpoint (Wright 1966, 33). This was a partial perspective that reinforced the modernist normative stance of the landscape. This preference of rational landscape became a mystified modernist subjectivity – a cartographic politics of agriculture.

Tree-Crop Farm Settlement 1965

Entitled "Plantation and Tree-Crop farm settlements", Fig. 5.1, a map extract, visualised an academic article that focused on plantation agriculture in Southern Nigeria. Fig.5.1 illustrated an article published in the journal, *Economic Geography* in 1965 and written by Reuben Udo, a geographer, at the University of Ibadan (Udo, 1980). This thematic map reflected the predominantly cash crop economy of the early post-independence Nigeria (Crowder, 1966). In the paper, there was use of four maps to illustrate the trend of plantation agriculture in Southern Nigeria, one of which highlighted the Tree-Crop Farm Settlement as a type of plantation. The target audiences of the academic paper, particularly in Nigeria, were the increasing emerging intellectual class (Ayandele, 1974). These intellectuals included members of the academic community, technocrats and bureaucrats in the state administration and students of higher learning.

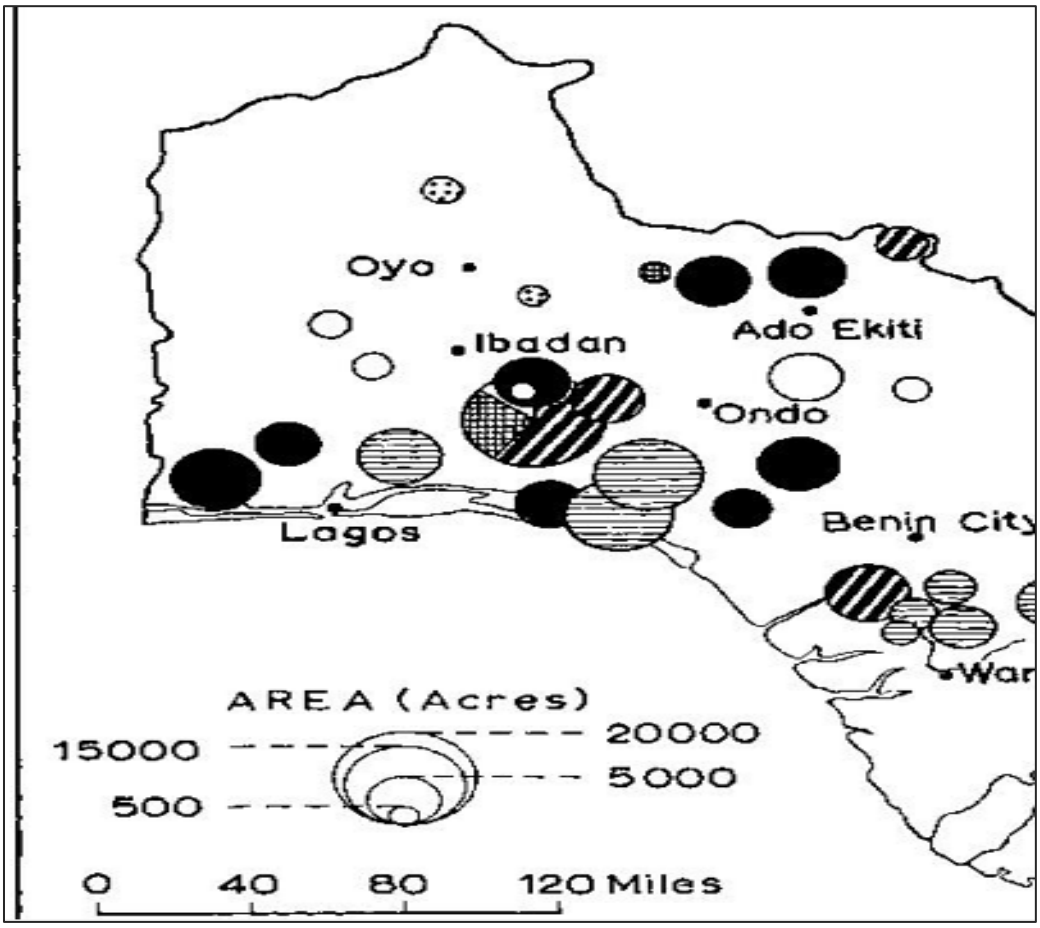


Fig. 5.1 Detail - Plantations and Tree-Crop Farm Settlements in Western Nigeria, 1965, Key-Black Hue circles denotes Tree-Crop Farm Settlement (Source: Udo, 1965)

The graphic background of the map includes the coastline, the lagoon and the main river system of the country. Dark lines depicting administrative boundaries to the north and the west mainly prompted recognising the political geography of Western Nigeria in the map. These geometric lines had naturalised these administrative geographies. The solidity of the black hue on the map gave prominence viewing not only to the tree-crop farm settlement but also to other types of farm spaces concerned with plantation-type agriculture. In addition, the size of the circular symbols highlighted variation on the map. Shaded graduated symbols showing proportional acreages depicted these farm spaces. Some of these graduated circular symbols were overlapping circles. On a scale of 40 miles to the Inch, the geographical mapping at a small scale gave a summarised spatial view of the agricultural landscape.

On the map, point symbols depicted five towns. All are administrative capitals of either the region or the provinces, reinforcing the geography of political power. These geopolitical grids served as a background to draw attention to the agricultural landscape around the region. Again, the representative symbols of farm organisations did not only serve as point locations but also as point data for areal coverage of each farm organisation. A balanced picture of the landscape reflected from the shaded circles of plantations in contrast to the black circles of tree-crop farm settlements. The visualisation of two-dimensional view together with shapes and lines (Kennedy et al, 2016) created an objective, ordered agricultural scenery. This depiction of the tree-crop farm settlement scheme in black, I suggest, held particular attention for the viewer. This black symbolisation seems to suggest, as Udo contends (1965, 366), the importance of the future role of the fourth type of planation – the tree-crop farm settlement.

There was a mystification of the plantation method in agricultural development in the early post-independence period. Plantation agriculture became the foremost agricultural organisational policy of the regional governments of Nigeria in the 1950s and early 1960s (Akinola, 1995). Indeed, Udo referred to this period as the plantation decade (Udo, 1965, 364). This was also evident in Southwest Nigeria in Fig 5.1, the larger and smaller plantations located across the region. This plantation landscape reflected the continuing influence of the regional ecological pattern, cash crop cultivation, and modernist–oriented agricultural economy. One of the four types of plantations was the tree-crop farm settlement. Their representation did not only indicate the contemporary but conferred with futuristic aspirations. As Udo (1965, 366) observed that "A recent establishment which in the next decade or two is likely to play an important role in the production of tree crops under plantation methods is the tree crop farm settlement".

Indeed, as aforementioned, the solidity of its portrayal with graduated circles in black hue draws attention to the farm settlement schemes generally. Interestingly, by 1965 there were 20 farm settlements across Western Region (See Appendix 16). These included about twelve farm settlements recognised as Tree-Crop Farm Settlement. Of this number, only eight tree-crop farm settlements appeared in the southwestern area on this map. For example, although unnamed, Orin farm settlement was to the north; Ado-Odo and Coker farm settlements were to the extreme southwest; in addition Onishere and Ifon farm settlements to the east. Other tree-crop farm settlements not portrayed on the landscape include those at Ago-Iwoye, Esa-Oke, Igbogila and Ile-Oluji. These were bigger farm settlements committed to cash crop cultivation. The ideals of the

modernist, rational landscape, as I have argued in Chapter 4, conceived the settlement scheme as partially a part of the plantation system.

Hence, the mystification of plantation agriculture, ascribed also to the tree-crop farm settlements, reinforced the naturalisation of the modernist agricultural landscape. The geographer presented four reasons to support this modernist rationality. First, sustaining the leading status of world market producer of crops, which was under threat from Southeast Asia where the plantation system was producing more cash crop than Nigerian agriculture. As Udo (1965, 359) pointed out that

> It is important to observe that the history of tree crop production reveals that where quality is of primary importance, that is where the buyer is ready to pay more for products of higher quality; and where skill is required in handling the initial processing of the produce, the plantation has a great advantage over peasant production.

Therefore, having lost the position of the leading producer of oil palm in the postwar period; the fear of the loss of "market for low grade Nigerian palm oil" from a continuing peasant production "provided a strong case for establishing plantations in Southern Nigeria" (Udo, 1965, 359-360). The geographer, "through the medium of the map, its task to 'make visible'" (Cosgrove, 2008, 218), highlighted this modernist position.

Second, there was the sustaining government revenue (Udo, 1965, 362). The direct needs of the state were a particular consideration in the firm belief in ordered agriculture. The crops of the usual three-acre peasant holding held "little or no potential for state revenue" (Scott, 1998, 12). Third, there was the exploiting unused land and labour resources (Udo, 1965, 362). The rise in surplus manpower had become both a challenge and an opportunity for the state. For example, an opportunity lies in plantation work for rural areas. The represented picture conveys the logic of maximising opportunities of abundant land and surplus manpower. As Cosgrove (1989, 119) notes, "Rationality is tacitly agreed to mean economic maximisation or satisfaction". Lastly, there was the attracting overseas capital to expand modern agricultural development. For instance, Udo (*Ibid,* 359) observed, "the governments of the area are taking various steps to encourage foreign investments in plantations". As Lefebvre (1991, 10) argues, "commodities, labour, knowledge, capital itself, land - are what together constitute capitalism".

These ideologies of capitalist modernity reflected in the cartographic image (Baker, 1992). The farm settlement in the represented picture ensured a preeminent visible communication of a rationally-ordered landscape. In addition, the rationally-ordered landscape symbolised the idea of progress. As Robinson (2006, 14) contends, "it aligns this sense of progress with certain places". In this case modern agriculture exemplified by the types of plantation agriculture. Likewise, geography, as a form of communication determined and visually reinforced the type of knowledge provided to the academic and bureaucratic elite "who were too remote from the common man a better understanding of the economic and social problems" (Giraud and Charles, 2013, 4) in the post-colonial state. Thus, in Fig.5.1, modernist ideological factors framed the visualisation of the agricultural landscape to justify a particular geographical imagination.

Ecological Zones and the Implicit Landscape of School Leavers Farm Settlement 1969

Fig.5.2, a map extract, was a visualisation in a report on agriculture and rural development (Johnson et al., 1969). This report was one of the several texts that sustained the notions of modern development in the early post-independence period. The Consortium for the Study of Nigerian Rural Development (CSNRD) consists of development experts from American universities, particularly agricultural professionals from Michigan State University. The CSNRD project ran between April 1965 and May 1971. The CSNRD produced several publications including 33 papers. Fig.5.2 illustrated CSNRD paper Number 33, written by the four authors. The four co-authors were Glenn L. Johnson, Orlin J. Scoville, George K. Dike and Carl K. Eicher (*Ibid*, 1969).

The United State Aid for International Development (USAID) contracted these experts to assess the American aid effectiveness in Nigeria's rural development. Interestingly, Carl Eicher taught at the University of Nigeria, Nsukka in the early 1960s (Eicher, 2003). There were cooperating institutions in the CSNRD project, in America and Nigeria. For example, in the United States there was the US Department of Interior and the US Department of Agriculture. In Nigeria, there was the Federal Ministry of Agriculture and Natural Resources, the Federal Ministry of Economic Development, the National Universities Commission, and the Nigerian Institute of Social and Economic Research (NISER) (Johnson et al, 1969).

These experts had carried out an extensive study "in cooperation with Nigerian agencies for over two years" (Johnson et al, 1969, i). Michael Adder, the head of the USAID mission in Nigeria, in a letter attached to the report, presented it to Mr Allison Ayida, the Permanent Secretary of the

Nigerian Federal Ministry of Economic Development, "for the consideration of your government" (*Ibid*, np) in June 1969. Three thousand copies of the report, *Strategies and Recommendations for the Nigerian Rural Development 1969-1985*, went to "appropriate Nigerian agencies", the Director of the project, G.L. Johnson, informed Michael Adder (*Ibid*, np). Except for a similar map, there were no other cartographic representations of space in the report. Both maps drew attention to the ecological zones of the agricultural landscape. If these maps depicted mainly ecological zones, why are they important in the reproduction of a modernist agricultural landscape?

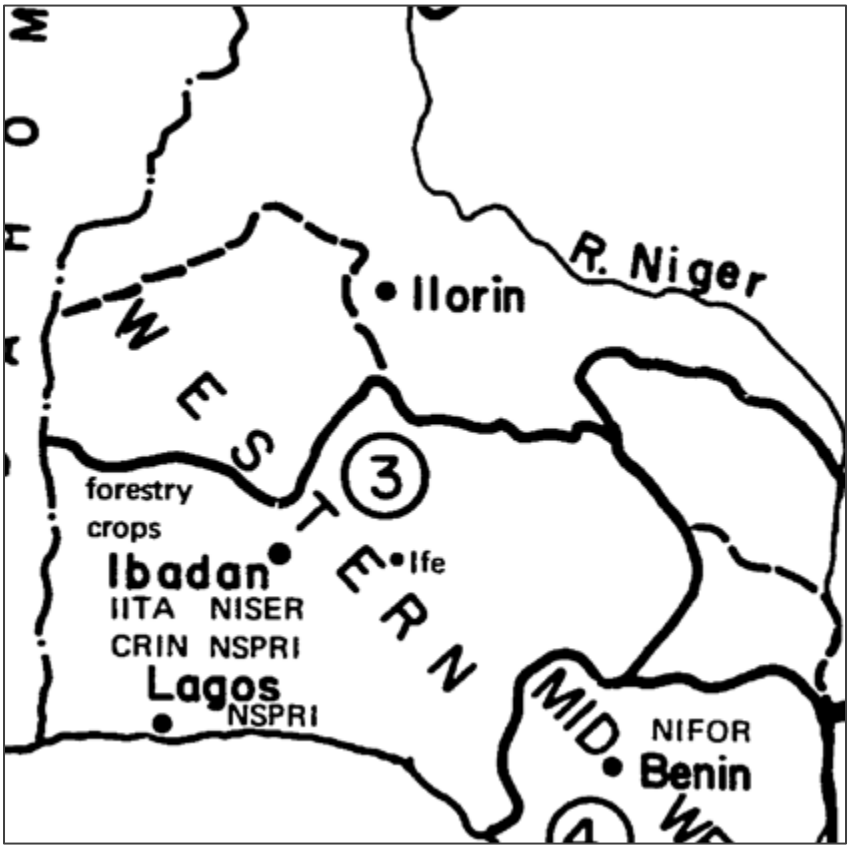


Fig.5.2 Detail - Ecological Areas, Western State of Nigeria, 1969 (Source: Johnson et al., 1969)

The graphic construction of Western Nigeria includes administrative boundaries and the oceanic coastline. Beyond an ecological demarcation, the thick-dark line at the centre of the map face represented administrative boundaries. For example, there were the boundaries of the Western State to the north and the east. The Western State, created in 1967, was essentially the old Western Region except the former colony area renamed Lagos State (See Fig.4.5). Hence, it was a reproduction of geometries of colonial political power (Massey, 1994). Similarly, the thick dash

line to the northwest and the chain line to the west in Fig.5.2 reflected the colonially created bounded space of southwest Nigeria – an impression of evolving political geography. The plain layout with minimal text created the effect of simplicity. This graphical convention of simplicity emerged from the rhetoric of purity in modernism (Kennedy et al, 2016). The graphic impression echoed the map's subtitle – an ecological zone.

On the depicted landscape are the ecological zones, the scientific research organisations and their labels. The typography of the scientific organisations was the sole distinction between the two maps (See Fig.5.2 and Fig.5.3). Visualising the natural and institutional components of the agricultural economy reflected the key recommendation of the report – a strategy of concentrating on economic crop production. This strategy had a short and long-run component. The short-run component includes, first, the need to "concentrate on opportunities to expand agricultural crops production and export earnings" (Johnson et al, 1969, 9). Second, empowering a "large number of rural people to provide the means of financing the expansion of production, to generate additional effective domestic demand for both farm and nonfarm products and to obtain a substantial improvement in the welfare of masses of her rural people" (*Ibid*, 9).

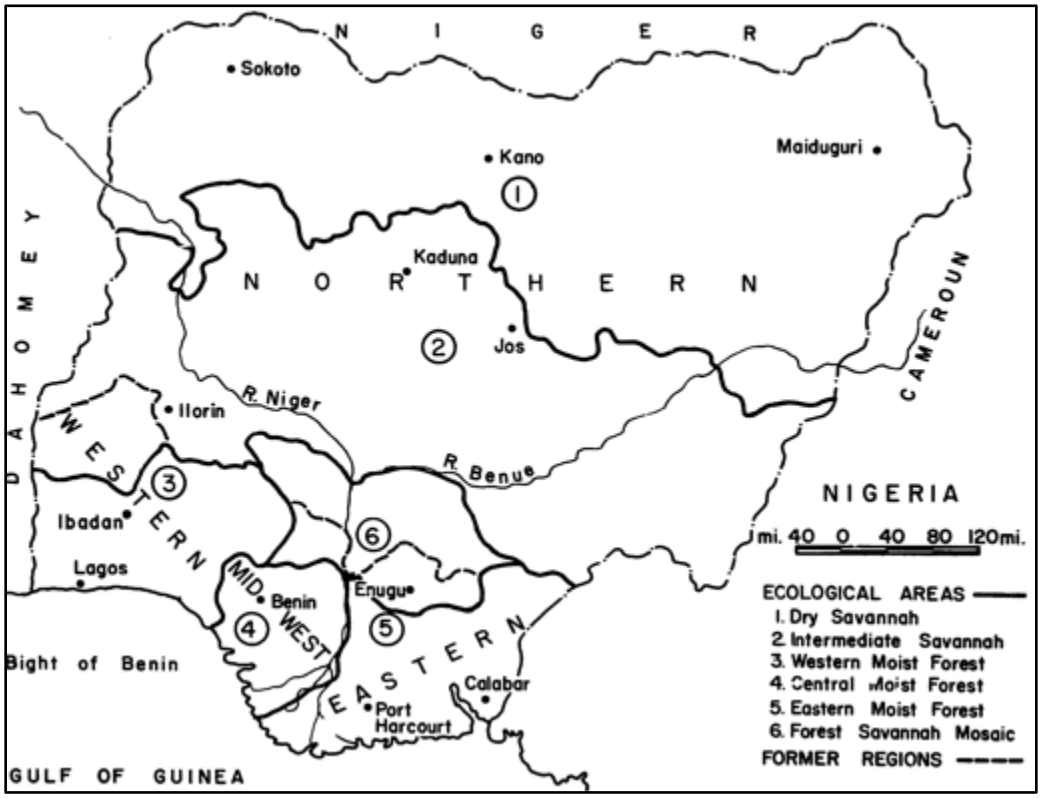


Fig.5.3 Map of Nigeria Showing Ecological Areas, 1969 (Source: Johnson et al., 1969)

Interestingly, blank spaces on the map do not only suggest "agricultural possibilities" on the agricultural landscape but also seem to draw attention to a below-expected capacity of production. Again, the cartographic blankness in Fig.5.2 suggests a largely unexploited agricultural landscape. The possibilities, expectations and unexploited embedded in the represented picture of the natural environment evokes by a pictorial statistics. The encircled Number 3 label on the map described the ecological zone of Southwestern Nigeria as a western moist forest drawing attention to an agro-economic implication of this strategy – intensify cash crop production. As an orienting symbol, this label valorised the perceived value of the natural environment in the service of human interest. Therefore, ecological zones reflected the need to intensify cash crop production. For instance, the cash crop cocoa – the highest foreign exchange earner for the central and state governments.

The agricultural strategy had a long-run component, which "involves much greater support for biological research to develop economically superior varieties of plants and animals" (*Ibid,* 9). Hence, the graphic information highlighted the direction of agricultural research for agricultural modernisation. Visualising the major agricultural research centres such as the International Institute of Tropical Agriculture (IITA), Nigerian Institute of Social Economic Research (NISER), Nigerian Stored Products Research Institute (NSPRI), and Cocoa Research Institute of Nigeria (CRIN) reinforced the modernist vision of the future. For example, CRIN was an important agency for cocoa production. Cocoa was the highest revenue earner of the post-colonial state before the rise of fossil fuel. Hence, there was the recommendation for expanding production, particularly "that southern areas should expand tree crop production" (*Ibid*, 10). Achieving this envisioned crop production expansion was through a production campaign. For example, the technical experts observed that "In the short run – the next 10 to 15 years – we visualise extensive *production campaigns* for the *export crops*, cocoa, groundnuts, rubber and oil which offer attractive prices to growers and provide packages of production resources, services and technical advice" (*Ibid*, 10, original emphasis). Thus, the mental picture held by the development experts employed Fig.5.2 to "explain, persuade, and tell stories" (Kennedy and Engebretsen, 2020, 19) of their imagination for the blank space of opportunities.

The Western State government had been trying to pursue this crop production exercise through traditional farmers, but also the government plantations and the farm settlements.

However, the technical experts explicitly discouraged in their recommendations "government-directed investment projects". For example, they did not share the optimistic stance of African policy-makers and scientists, because, "in view of the lack of success to date the policy and programmes which put Nigerian governmental agencies in the business of producing agricultural products must be questioned" (Johnson et al, 1969, 47). However, this recommendation was a contradictory view. For instance, elsewhere in the report, it was recommended that "new settlement schemes along the lines of the 'school-leavers farms' might be inaugurated" (*Ibid*, 61). As they noted that "Opponents of the smallholder system assert that plantations afford the best opportunity for modernising agriculture because all modern techniques can be brought together and operated on a scale that will give optimum results, labour can be put under supervision, quality standards can be maintained and new sources of capital mobilised" (*Ibid*, 52).

A good number of opponents of smallholder agriculture were policy-makers and bureaucrats. By this time, there were already 37 farm settlements in Western Nigeria (See Appendix 16). Although the evaluation of state-owned agricultural schemes was unimpressive, yet the technical experts could not see any other replacement. Therefore, the state could continue to create school leavers farms – which meant establishing more Type B farm settlements. The expert view was conscious of the regional politics of unemployment and its relations with the creation of the farm settlement as reflected in the statement "obviously Nigeria has to take steps to provide remunerative employment in agriculture for large numbers of persons" (*Ibid*, 30). Interestingly, the recommendations of this report projected 'modern development' beyond 1969 unto 1985. The visualised blankness, I suggest, conveys an implicit landscape of potential school-leavers' farm settlements but also the inconsistencies of the totalizing worldview of modernisation.

Farm Settlement – the Modern Agricultural Landscape 1975

Fig.5.4, a map extract, accompanied a land resources study conducted by the Ministry of Overseas Development of the United Kingdom in 1975. This relief map was part of the Western State Savanna Soil Survey conducted for the Nigerian Government by the British Government. In addition, it was an exercise carried out under a Special Commonwealth African Assistance Programme. The Cartographic Unit of the Land Resources Division of the UK Ministry of Overseas Development conducted the mapping. However, the Directorate of Overseas Survey, a branch of the UK Ordnance Survey produced the final map. This relief map, identified as D.O.S.

3159G, was part of a map series. The map series with a scale of 1:500, 000 originated from the National Topographic Map Series of 1:50,000. The cartographer was G. Murdoch. The objective of Fig.5.4 was to illustrate the relief of the area of the soil survey – the Western State of Nigeria.

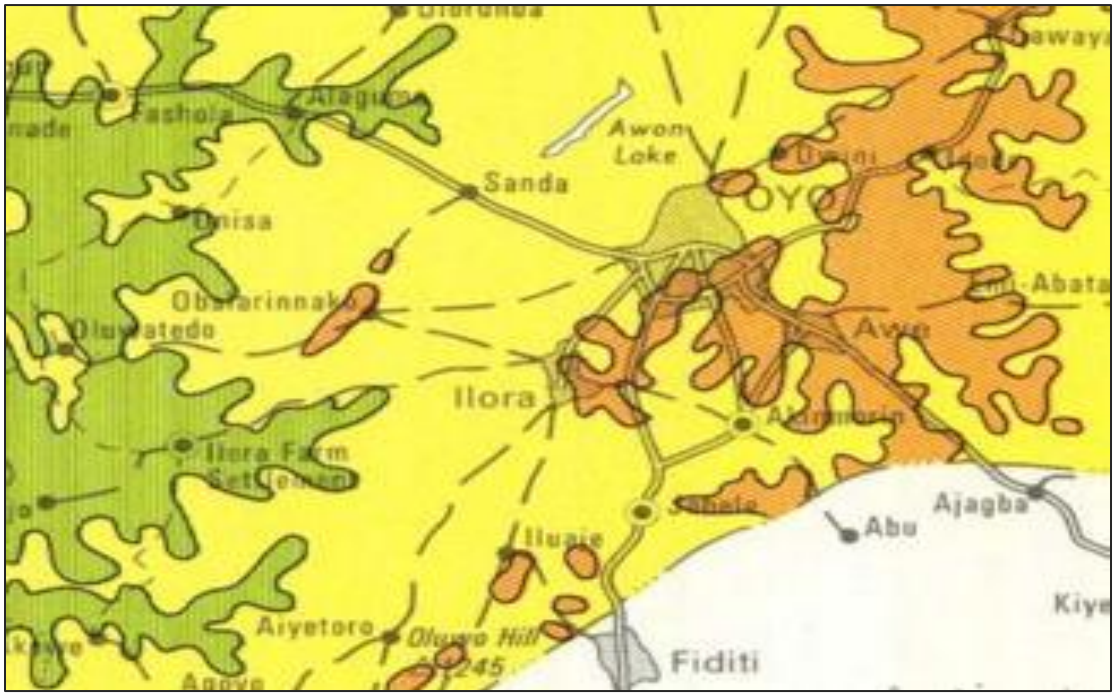


Fig.5.4 Detail of a Topographical Map of Southwest Nigeria showing Southwest Oyo District, 1975 Scale 1:500,000 Ministry of Overseas Development, UK, 1975 (Source: ISRIC, Wageningen, 1975)

The production of a topographic space of Western Nigeria was the focus of the map symbolisation. Hence, the topographic variation through seven classifications of heights employed different colours. Of these seven colours, only three topographic classes appeared in the segment in Fig.5.4: green, yellow, and light brown in ascending order. Other height makers used on the map include spot heights and trigonometric stations. For example, the triangular symbol with the 'height in feet' - 245, beneath Oluwo hill, at the foreground of the map segment. This elevation information ascribed trustworthiness to the cartographic image. Besides, the symbolisation of communication systems was prominent on the map face. Indeed, lines depicting main roads, minor roads and tracks seem to fill the space creating an impression of a well-networked coverage of the map segment. Although Fig.5.4 of this soil map series might be concerned with physical geography evidenced

in the topographic elevations, the cultural depictions equally make the map an interesting geographical space.

Cultural features abound on the map but with distinctive visibility to modern agricultural institutions. These features include settlements classified into towns, villages and even abandoned settlements. Also depicted are roads, administrative boundaries and forest reserves. This portrayal drew attention to the socio-economic feature of the mapped areas. An interesting portrayal in Fig.5.4 was Ilora Farm Settlement, located southwest of Ilora town. Remarkably, except the Upper Ogun Ranch, neither Eruwa nor Ipapo farm settlements appeared on this 1:500,000 map which geographically covered these areas on the map face. What might have informed the selectivity of farm settlements depicted on the landscape?

The Ilora Farm Settlement evoked the privileged sense. First, the farm settlement reflected the ideal image of an agricultural organisation – a large expanse of compact farmland. This depiction mirrored the colonial agricultural ideal, as I have shown in Chapter 4. Although, the 8000 acres Ilora farm settlement (See Fig.4.25) was not an areal feature in Fig.5.4 but recognising it by label reflected privileged visibility. As Wylie (2007, 60) notes that, "the landscape way of seeing which develop from perspective becomes in itself the sense of privileged".

Secondly, at a time when the WNLSS had an operational and management crisis, this farm settlement was one of the best performing farm settlements (MANR, 1975). The few performing farm settlements provided justification by bureaucrats for the continuation of the farm settlement strategy. Although Ilora farm settlement was devoted to arable crop cultivation and livestock breeding (Udo, 1970), it had tree crop and teak tree plantations. Also, in terms of farm settlers still resident on the farm settlement by 1974, there were 102 farm settlers, preceded only by Ago-Owu (165 settlers) and Onishere (113 settlers) farm settlements (MANR, 1975, 28). Based on a 1974 MANR review of the farm settlement scheme, the Ilora settlement scheme was categorised, evaluated and grouped amongst the nine high priority settlements that required "urgent provision of loans for maintenance expenditure and immediate expansion" (MANR, 1974, 2; 1975, 47). The agricultural bureaucrats explained further regarding high priority farm settlements as having

> satisfactory settlement position with respect to settler number and turn-over. The crops are right and the effective acres doing well. The existing family income based on the existing cropping pattern is high and the revised plan is equally high. The value of the assets, crops and permanent structures is high and the repayment possibility based on good management of resources is high too. There is ample scope for expansion at the instance of the settlers. Further

investments on the farm for maintenance of the crops and for expansion of arable crops in particular are quite desirable. Generally, the needed additional investment is low, and should be provided early, to gain full benefits (MANR, 1974, 25; MANR, 1975, 49)

Depicting elements of the rational agricultural landscape contribute to validating the soil survey. For example, one of the reasons adduced for the rising management crisis was that "these farm settlements were established in great haste and without prior feasibility studies" (Adegeye, 1974, 79). That visual representations had a considerable impact on shaping imagination in everyday practices was hardly questionable. Soil study would have been a fundamental component of feasibility studies to remedy the modernist agricultural crisis. On the other hand, the visual picture of a rationally-ordered agricultural landscape validated its importance in other scientific discipline (Cosgrove, 1998, 9). Visualising Ilora farm settlement on the map series of the soil survey emphasised its value to the agricultural landscape. The represented picture, excluding the backward, primitive or traditional agriculture, draws attention to the repetitive role of visibility in structuring human consciousness in the framing of modernity (Robinson, 2006). Therefore, the map series of the soil survey, associated with modern agriculture, contribute to the technical rationale for the ideologies of soil survey.

Rational Planning, Rural Migration and Farm Settlement Landscape 1978

Klaus Grenzebach, a German geographer, was part of the research program carried out by the Afrika-Kartenwerk of the German Research Society in the 1970s. The German Research Society (Deutsche Forschungsgemeinschaft) was an autonomous research organisation promoting science and the humanities established in 1951 (www.dfg.de). The Afrika-Kartenwerk carried out thematic mapping of four regions of Africa, including the West African countries of Nigeria and Cameroon. This thematic cartography resulted in a series of 1:1,000,000 scale maps that complied with the requirements of scientific geography (Luig and von Oppen, 1997). Again, it was the basis for systematic regional studies conducted by Grenzebach published in the *GeoJournal*. Yorùbáland was one of the case studies used in this regional study, accompanied by other medium and small-scale maps. He argues for the importance of visualised spatial knowledge because "bare statistical figures" cannot communicate as much "but their transformation by cartographic means forms a

fundament for area studies and hypothetical prospects for regional planning as well as for regional analysis" (Grenzenbach, 1978, 215).

Fig.5.5, a map extract, was one of ten cartographic illustrations in an academic paper on rural landscape published in 1978. The map used the choropleth method. Interestingly, there was no direct, specific reference to the farm settlement scheme in the explanatory text of the research paper. No textual comment on the depicted farm settlements related to rural migration or areas of agrarian production. Nonetheless, the visualised farm settlements offered correlations to the argument of Grenzebach for the critical map reader. However, there were allusions to land colonisation and its influence on the rural movement. Hence, why did the regional geographer depict the farm settlements on the map face?

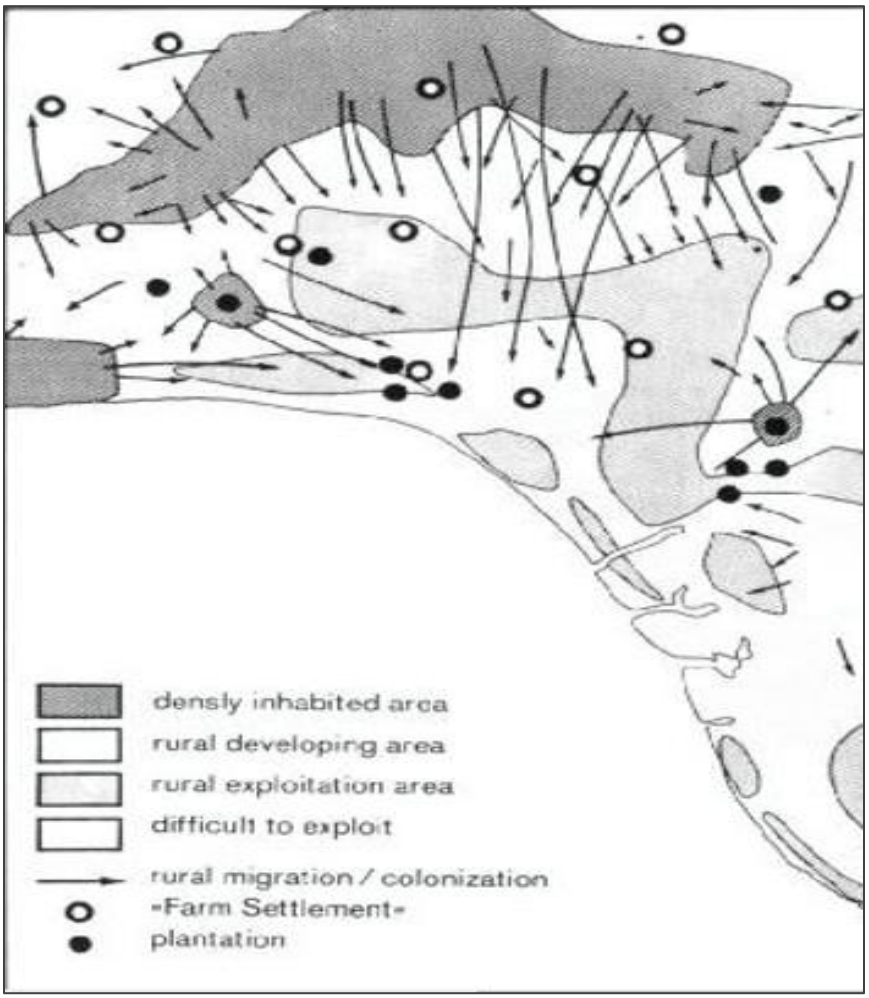


Fig.5.5 Detail - Areas of different rural density, streams of rural migration and sites of rural settlement schemes, Central and Southeastern Yorùbáland, 1978 (Source: Grenzebach, 1978)

The mapmaker employed only the coastline as background to give shape to the visual imagery of the geographical space of Southwest Nigeria. Shaded polygons introduced a classification of rural areas on the map. Also, circular symbols referring to farm settlements and plantations informed the viewer with a rural landscape concerned with agriculture. Unlike Fig.5.1, the graphic space gave a summarised knowledge of the rational landscape. The lack of indicative texts or labels on this map might be because it was one of the several maps used in this paper. Hence, the reader might let his or her geographical imagination fill the rest of the graphic space. More dominant across the depicted landscape were dynamic symbols of arrows, projecting an overall impression of action (Ware, 2008, 21).

Aimed at examining in the Yorùbá case study, differences in agricultural areas and agro-economic mobility, the map visualised rural population density, agro-economic units and the processes of rural migration. The choropleth technique depicted the areas of rural population and production. The shading pattern reveals three areas. An area with the darkest hue referring to heavy rural population was to the north and southwest. Between these areas of the dense rural population were interspaced areas categorised as 'difficult to exploit'. These in-between spaces might suggest to the viewer a light rural population. However, the geographer indicated that the area with the intermediate shading was 'developing'. This suggests to the viewer areas suitable for agricultural exploitation. Again, arrows showed the direction of movement revealing more movement from the north to the southern areas. However, there were pockets of little movement to the northwest, southeast and east. Besides, this portrayal of movement drew attention to the 'geographically distinct' agrarian units of the agro-economic landscape. However, traditional farming reflected as choropleth categories in Fig.5.5, were areal features in an accompanying map of scale 1:50,000 covering Irun-Akoko and environs. Nonetheless, the direction of many arrows in Fig.5.5 was towards the plantations and farm settlements. The depiction advocates that farm settlements were on the path and destination of the streams of rural migration.

Although there were increasing challenges to the farm settlement scheme, they retained their ideological mystification through the justification of the role of modernist agriculture in the rural landscape (Wylie, 2007, 67). For example, this rational landscape reveals an important influence on increasing rural mobility of the 1970s as the map suggest. As Udo (1965, 357) observed, "The plantation system has been one of the chief causes of labour migration". Regardless of no specific reference in the geographical article to the twelve farm settlements, their

visualisation impressed a message to the reader that these were modern agricultural units and destinations of rural migration. In addition, the direction of population towards these sites of ordered agricultural development seems to affirm the modernist perception of expanding the rational model of the agricultural landscape across the region. Indeed, after the discrediting of the subnational state foray into plantation agriculture (Johnson et al, 1969), the farm settlement scheme remained the focus of government involvement in direct farm production. The locations of several tree-crop farm settlements are towards the south, an ecological zone, as shown in Fig.5.2, most favourable to cash crop cultivation. For instance, Ibiade, Okitipupa, Onishere and Ifon farm settlements to the east were cultivating oil palms and cocoa (MANR, 1975, 26-27). These farm settlements visually symbolise modern agricultural contributions to the world economy.

The visual impression of these plantations and the farm settlements contributed to the governmental rhetoric of rational agricultural development. They were doing persuasive work for continuing international aid (Eicher, 2003). For instance, the cartographic work of Afrika-Kartenwerk was similar to the map work of Jurgen Schultz in Zambia. As Clayton and Dent (1999, np) observed, "Schultz' maps have been used extensively as base maps for rural development planning in Zambia". Although farm settlements reflected on the 1:750,000 maps of Zambia, they were not particularly visible on the 1: 1 million Afrika-Kartewerk topographic maps showing Western Nigeria. Grenzenbach analyses of Yorùbá agriculture using prose highlighted the areas of opportunities but the visible representation of farm settlements emphasised them as "privileged sites of modernity" – projecting innovation, dynamism and historical consciousness (Robinson, 2006, 20). Visualising the farm settlements continue to reproduce the need for rational agricultural planning, even as state-owned plantations fell out of official government policy. Thus, the modernist cartographic gaze of international scientific cooperation contributed to the modalities of the rational agricultural landscape.

The Farm Settlement Scheme– the Challenges of an Ordered Landscape 1979

Fig.5.6, a map extract, was an entry in the *Agricultural Atlas of Nigeria* produced in 1979 by an academic cartographer and geographer. Samuel A. Agboola (1979, 1), who produced the atlas, observed, "there is very limited appreciation of the spatial organisation of agricultural production in Nigeria". Hence, following Coppock, he sought to demonstrate through the geographer's approach the spatial characteristics of the agricultural landscape through maps. Although there was

an examination of traditional farming as part of the representation of the agricultural economy, the visualisation of the modern agricultural schemes – plantations and farm settlements were more explicit. While traditional agriculture was essentially an adjunct of the pictorial agricultural statistics, the map depicting the farm settlement schemes presented a particular feature of the agricultural landscape. Interestingly, the theoretical basis of this Agricultural Atlas was a combination of diffusion, location and systems theories that focused on land use. Applying Johannes Von Thunen's classical location model, the Atlas, affirmed the naturalisation of spatial ordering as an essential feature of scientific agriculture on the landscape.

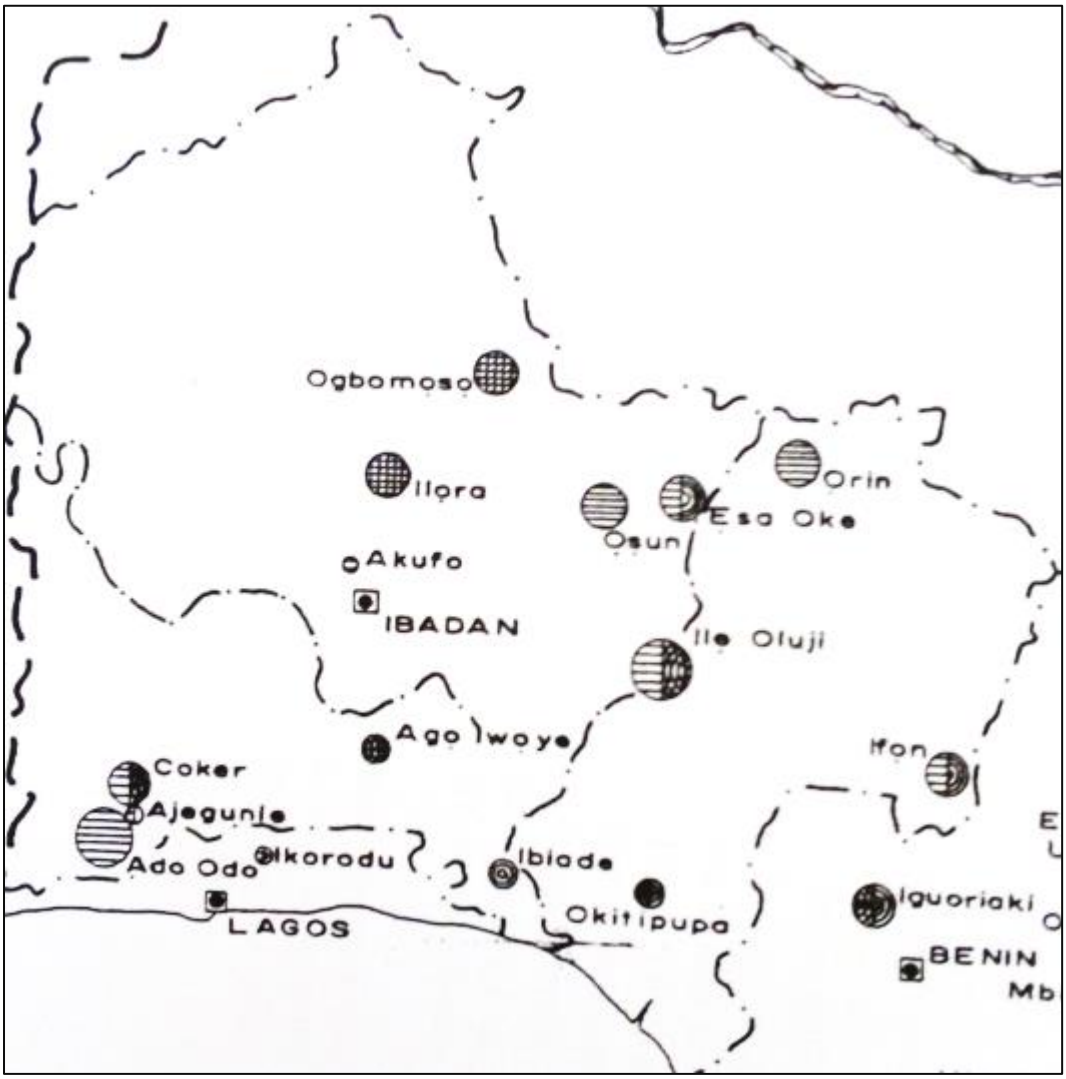


Fig.5.6 Detail - Western Nigeria Land Settlement Scheme, 1970 (Source: London: Oxford University Press, 1979)

Like previous maps, the graphic background of this map made use of coastlines, rivers and administrative boundaries. Similar to Fig.5.1, the use of graduated symbols conveyed numerical attributes of the locational information. In addition, unlike Fig.5.5, legible labels in Fig.5.6, described the circular symbols ensuring graphics that are more communicative. Although Atlas maps are often small-scale, the blank space in Fig.5.6 was thought provoking. They drew the attention of the viewer to the internal reterritorialisation taken place on the political landscape. The rebounding of space was essentially reshaping space but still within colonial administrative spatiality. Besides, this graphic impression seems to suggest and emphasise to the reader the superimposition of the agricultural theme upon political geography.

Although the map showed the farm settlement scheme as of 1970, the geopolitical landscape of southwest Nigeria consisted of a four-state structure in 1979. The portrayal of the settlement scheme as of 1970 omits several farm settlements (See Appendix 16). For instance, the explanatory text accompanying the map referred to 20 farm settlements. Why would the map author use a contemporary administrative boundary to structure past data? Why did the map omit several existing farm settlements? For example, Oyo and Ogun States have the same number of five farm settlements portrayed. The notion of selective truth (Monmonier, 2005, 216) might not be sufficient to explain the mapmaker's omissions. It seems the map author wanted to depict operationally effective farm settlements within the new political geographies as of 1979. Again, I suggest that this might also be due to the challenge of securing information concerning the farm settlement from state government bureaucracy. For example, the Oyo State MANR (1977, 1) acknowledged the lack of data on "settlers activities". Therefore, the fifteen farm settlements depicted seems to be the farm settlements with available information. Although there was a political-economic concern for the waning of the settlement scheme, the reproduction of visual images buttressed previous enthusiasm for the rationally ordered agricultural landscape.

Hence, the depicted agricultural landscape revealed an ongoing challenge to the preferred spatial order of state modernity. This visualised landscape drew attention to the historical discourse of state agricultural modernisation in the Atlas, exemplified by the farm settlement scheme. This historical background reemphasised the importance of the scheme. First, the scheme attracted massive public support as a means to solve socio-economic and socio-political problems. In particular, the employing of Western-educated school leavers, and thus diminishes "the influence of revolutionary youth dedicated to overturning the *status quo*" (Agboola, 1979, 186). Second, the

scheme was a growth pole of development, in line with the Rostow economic growth model (Rostow, 1960). Third, the employing of the Israeli Moshav model served the statist vision of expanding cash crop production (Akinola, 1995). As I have shown above, there was connection between state agricultural revenues and the development ethos of early post-independence socialist modernity. Fourth, the population densities of the areas influenced the size and shape of the farm settlements. Compactness and geometric ordering of the sites of agricultural modernity directly entwine with cultural characteristics of the previous land tenure regime. These were justifications for the sustaining the scheme.

This visualisation of the farm settlement scheme in the Agricultural Atlas created a different mood from the actual challenges of the settlement scheme (Fajana, 1978). The scheme had succeeded in producing a restricted group of 'reformed Others' that was rapidly decreasing (Sibley, 1995). For example, by 1974 only 1,334 farm settlers remained on 31 farm settlements (excluding the farm institutes and Ajara farm settlement) out of the 3,896 farm settlers planned as the total target at full development of the scheme (MANR, 1975, 52-54). Interestingly, 4,434 farm settlers, beyond the target, had partaken in the programme, but 3,010 farm settlers opted out later. This wastage amounted to 67.9% (MANR, 1975). Like several state planners and critics, Agboola (1979) acknowledged that the scheme was a capital-intensive investment. However, the perceived objectivity of the visualised landscape absorbed the wastages of either school leavers or state funds.

Secondly, there was no actual reproduction of the state settlement model amongst the indigenous agricultural populace – the rural Other – during the period (Adegboye et al, 1969; Boelens et al, 2019). Like the massive advances in Free Basic Education, the statist imagining of the rural landscape by the subnational socialist modernisers was a replication of its modernist agricultural model across the region (Oluwasanmi, 1957; Krenin, 1963). However, visual representations of agricultural organisations in the 1970s did not suggest any adoption of grid-like agrarian framework by the common populace. If such indigenous adoption of geometric ordering of farmland existed, it was also a matter of if they were visible to the society. However, there was visibility of farm settlements as sites of seasonal migration offering employment to rural residents (Familugba, 2016; Grenzenbach, 1978).

Thirdly, in terms of planned and actual cropping patterns, the envisioned was far behind reality. For example, by 1970, only 37.3% of the planned 9,747 hectares of tree crops were

achievable (Agboola, 1979, 187). Similarly, in 1974, there was cultivation of 20,956.31 acres (8,480.9 hectares) of tree crops out of 129,994.57 acres (52,608.08 hectares) (MANR, 1974; MANR, 1975, 18). Unlike the logic of subaltern agrarianism framed on everyday life, the industrial philosophies of agriculture envisioned its success on statistical returns (Thompson, 2008). Therefore, the state had not achieved much of its focus of cash crop expansion on the settlement scheme. Nevertheless, the represented picture evoked a sense of optimism and pride in previous achievement, an array of cash crops and hectares as oriented by the map legend.

Fourthly, there were challenges to the size of land granted to the state government by landowners. For instance, the MANR (1975, 22) reported, "in 1970, owing to persistent agitating by landowners, Akufo Farm Settlement was temporarily closed down". This overview of the scheme revealed its poor performance. This was the reason for the waning of the concept of farm settlements as modernising rational units. Udo argued in 1977, "given the high cost … and the rather unimpressive performance of all the farm settlements, we do not advocate the investments of public funds in such projects" (Udo, 1980, 23). Indeed, the military governor of Western State, Brigadier Oluwole Rotimi declared in 1974 that the settlement scheme was a failure (MANR, 1975, 24). The mid-1970s was the turning of the tide for the scheme, as if, affirming the earlier observation of the development experts (Johnson et al, 1969). The disparity of the number of farm settlements visualised on the map, I suggest, partly reveal the operational disorder within the rational landscape.

However, pockets of success on the rational economic landscape justified the salvaging of the modernist vision, which Fig.5.6 visually celebrates. For example, Agboola (1979, 187) noted the success of the tree-crop programme in some selected farm settlements. "The implementation of the tree-crop programme was slightly ahead of the arable one, ….over 70% of the planned cocoa area existed already in Onishere, Orin-Ekiti, Esa-Oke, and Ife [farm settlements], all of which are still important cocoa-producing areas today". Perhaps these 'isolated cash crop successes' are partly reflected in the selectivity of the farm settlements in Western Nigeria shown in Fig.5.6. Selecting the actively successful stations out of the existing 37 farm settlements (See Appendix 16) suggest an unintentional distortion of socio-economic reality.

In another sense, this visualised landscape attests to the argument of revising the modernist agricultural model rather than discarding it. This was the view held by several Yorùbá scientists,

development planners and concerned citizens. For instance, a concerned citizen, a traditional chieftain, the Jagunoshin of Ora (MANR, 1975, 83), said:

In my own view the Farm Settlement Scheme, the snags it ran into notwithstanding , it can pilot us to the green revolution for which time is now most opportune indeed…..for that and only that will encourage the people who very willingly offered the land in the interest of great things they expected must follow.

The enlightenment mentality, *Olaju*, upon which the scheme rode in the 1960s, was still much at its beckon for reviving the scheme (Peel, 1984). The idea of the scheme was not only a modernist agricultural philosophy held by policy-makers but it was also rooted in the expectations of modernity of the indigenous populace (Ferguson, 1999; 2006). The unfulfilled imagination of the subaltern was already stimulating the core element of modernity – dynamism and innovation. As Robinson (2006, 21) observes, "Even a choice to defend tradition could be understood as a contemporary adaptation to the present - a modernity". In defending the 'tradition' of settlement scheme, subaltern reinterpretations were gradually emerging in oral practices (Osuntogun, 1980).

Nonetheless, visualising the 1970 data in the light of the operational challenges and opportunities of the scheme in the late 1970s suggests its continued relevance. For instance, visualising crop specialisation and their associated farm settlements, through multivariate mapping, emphasised the continued role of cash cropping in scientific, development and official thinking of the rational agricultural landscape. As Teriba (1980, 15) observed in 1978 that "development….is seen and measured by our policy-makers, planners and administrators in terms of concrete structures and infrastructural facilities". One way of seeing, knowing – indeed conceptualising this material development was through the visually appealing pictorial space (Olwig, 2009). Therefore, there was a continued support for spatial ordering on the agricultural landscape through the disciplinary knowledge of the sciences while it facilitated the continued hiddenness of the subaltern agricultural geographies.

5.2.2 *Cartographic Representation and the Neoliberal Landscape*

I argue that the visual discourse of state maps in social and institutional processes contributed to inculcating a shared identity of a rational agricultural landscape. The visual depiction of the agricultural settlement scheme as a laudable development strategy almost ceased in the 1980s and

1990s, a time when there was also a general decline in map production (Ufuah, 2003). This decline in admiration for the scheme was influenced by, first, the negative effect of the oil boom on the Nigerian agricultural industry (Lewis, 2006; Teriba, 1980). Second, there were unresolved technical and managerial problems with the farm settlement schemes, which dosed the enthusiasm for the scheme (MANR, 1975). Thirdly, the centrist-oriented government of authoritarian rule was not interested in advancing the settlement scheme, which was treated as a regional economic policy. Finally, the era of neoliberal economic reforms began, exemplified in the structural adjustment programme (SAP) (Harvey, 2005a; FMAWRRD, 1988). Hence, the settlement scheme suffered willful neglect, which reverberated in its lack of depiction. Nevertheless, individuals, institutions and even the state reprinted the previous visualisations of the agricultural settlement schemes in the 1980s, 1990s and 2000s to serve several purposes. Although outdated visualisations, they continued to express the ideas of modern agriculture. This was evident in the uses of the National Topographical Map (NTM).

Although surveying and mapping suffered a decline during the nascent economic liberalisation period of the late 1980s-1990s (Ayoola, 2007; Ufuah, 2003), the reproduction of the NTMs continued to naturalise the rational agricultural landscape. For instance, this was evident in the 1964 National Topographic Map (NTM) Mahin Sheet 296 NE displaying the rectangular-like Oil Palm Plantation (Scale:1/50,000). Similarly, the 1966 National Topographic Map (NTM) Badagri Sheet 278 / 278A portrayed the polygonal-shaped Ado-Odo Farm Settlement (Scale: 1/100,000). The continual sales, distribution and reprinting of the hard-copy sheets of the National Topographic Map in the 2000s continue to impact map users in state-oriented social processes (Akinyemi, 2003; Dada, 2012).

Indeed, these state institutional processes sought to discipline the spatial thought of the western-educated population towards such a rational landscape. As Harley (1990, 2) posits that, “maps structure consciousness”. For example, this was evident in the structuring of spatial consciousness through formal education in geography and cartographic literacy. Olwig (2009, 238) observes that “Geography – as both a school and university subject – has long played a central role in educating people to see the world in terms of given world pictures”. In these educational discourses, the visualised landscape contributed to the veil of the debilitating results of the emerging West Central African version of neoliberal capitalist agriculture (Hall et al, 2015; Wylie, 2007; Williams, 2021).

Farm Settlement Landscape and School Cartography

Fig. 5.7, a map extract, reprinted in 2000 for an educational purpose was a 1966 Federal Surveys publication. The West African Examinations Council (WAEC) used the map extract for the November/December West African senior school certificate examination in Geography in 2000. One prominent feature on this reproduced NTM Series Lagos Sheet NW279 (Scale: 1/50,000), showing Southwestern Abeokuta Province (currently Ogun State), was the Coker Farm Settlement. Although an outdated topographic information – it was 38 years old (1962-2000) – the reproduction of the sheet meant a reproduction of the modernist way of framing the rural area and agricultural landscape. As critical scholars have argued, the educational system is a prime means of producing subjects (Crampton, 2010; Harley, 1988a; Pickles, 2004).

School cartography has a long history in the education sector of Southwest Nigeria. Most maps embedded in school books were essentially small-scale maps. However, medium and large-scale topographical maps as illustrations and teaching material in geography books began in the late 1960s. For example, the use of a topographic map of Lagos (Sheet 279 SW) in the regional studies exercises of *The New Africa* by Glady Hickman (1973, 72). Similarly, some geography textbooks by Nigerian authors employed topographical maps as teaching material. For instance, *Senior Secondary Geography Series* by Abegunde et al (1990) employed NTM Ilesa sheet 243 in its map work section. Besides, several geography lessons in the textbook series included maps to aid topics on agriculture and practical farm studies. Maps are integral to map work section of the geography curricula in high schools. Map reproduction for schoolwork remained crucial to the state cartographic industry. Fig.5.7 was an example of topographic cartography in service of state educational purposes in 2000.

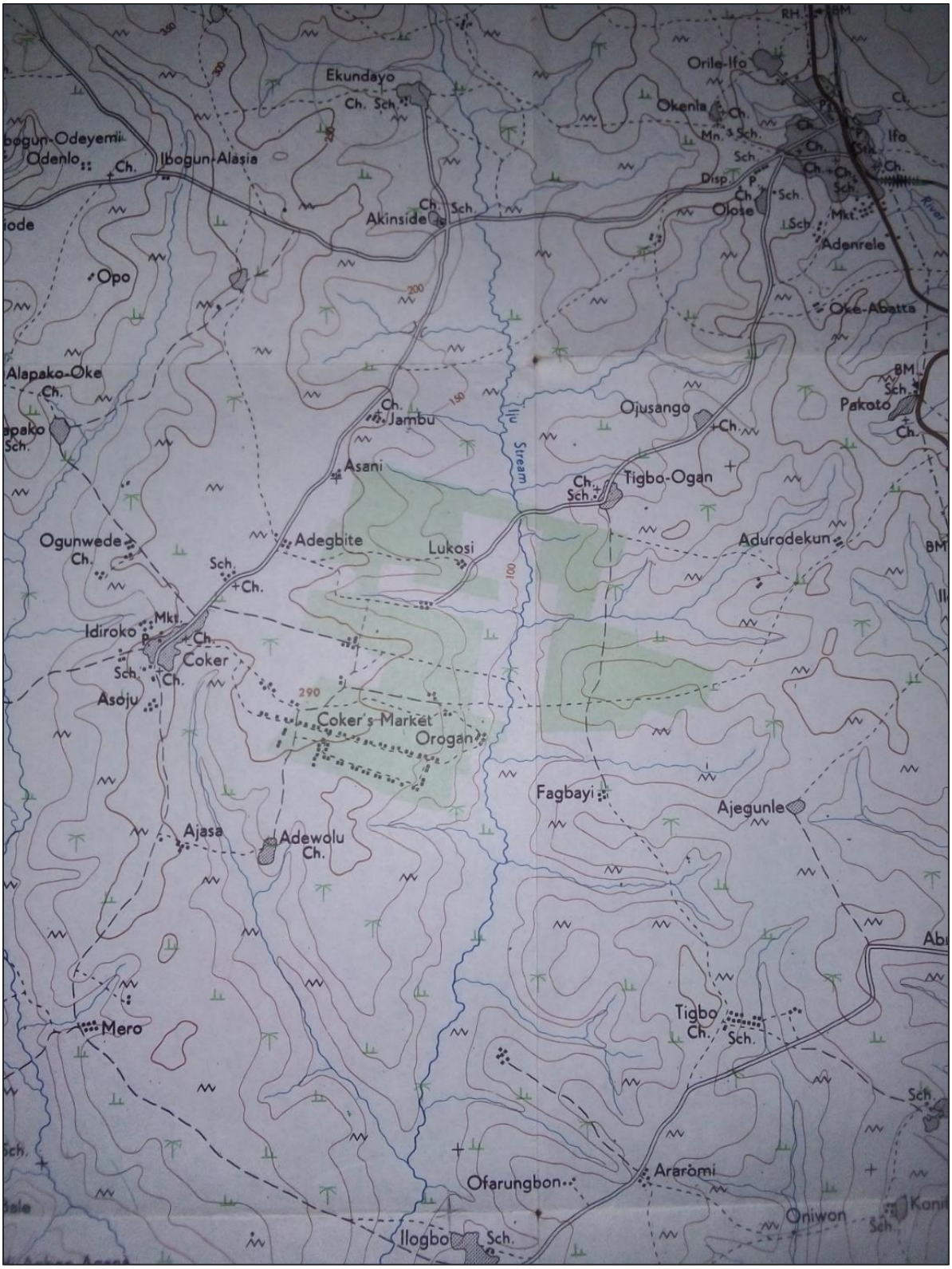


Fig.5.7 Coker Farm Settlement on the Topographical Map of Southwestern Abeokuta Province, 1966, Scale 1:50,000 Source: Federal Surveys, Nigeria, 1966. Reprinted 2000 (Lagos: Topographic Map Sheet Lagos 279NW).

The reproduced topographic landscape reflected a map-making convention that ascribed a level of trustworthiness to the map through objectivity, sense of order, clarity and transparency (Kennedy et al, 2016). There are several cartographic conventions at work in the visualisation of rural topography. First, the vertical, two-dimensional perspective provided a wholeness of the terrain. This wholesome perspective ascribed objectivity to the synoptic view of the landscape presented to the viewer. Second, the contour lines forming varied geometric shapes to represent the lay of the topography seem to capture the realistic character of nature. This recreation of physiographic nature created a sense of order. Third, the varied typography and the widely spaced vegetation and cultural symbols contributed to the distinctive map layout. This focus on the topography with a minimal feature representation creates an aura of clarity and simplicity. Fourth, in spite of lack of full data sources owing to the map purpose, but the few marginal information ascribed transparency to the map. The graphic imagery impressed a rural but equally ordered landscape.

The natural and cultural features of the rural landscape drew attention to the portrayed farmland at the centre of the topographical sheet. Coker Farm Settlement, located in Ogun State (created in 1976, formerly Abeokuta and Ijebu Provinces, See Fig.4.24), was portrayed showing its spatial extent on the landscape. There were considerable changes in the agricultural landscape at the time of its reproduction on the map, though it was still the authoritative knowledge of the post-colonial state. For example, there was a rapid lateral expansion of several rural settlements portrayed on the map. The aerial data of 1962 (Adebekun, 1986), which the depiction reflected, was no longer relevant in the late 1990s. Indeed, the lateral growth of the Greater Lagos metropolitan area was towards the direction of the Coker Farm Settlement. Hence, local land grabbing was gradually making its way towards the alienated government farmland (Akinfenwa, 2016). Nonetheless, this pictorial representation of modern agriculture served the purpose of educating generations of students.

Although the topographic sheet served high school geography map work, there was connection to the agricultural studies curricula. Over the decades, a general topic in high school subjects of geography and agriculture was the role of government in agricultural development. One of the particular topics in the school syllabus was the farm settlement scheme. The depicted farm settlement was a projective technique of educating students regarding rational agricultural

landscape, compact farmland and modern identity of farm settlers. Cartographic conventions evoked this rational landscape. For example, as aforementioned, the objectivity of two-dimensional view and the sense of order invoked through the geometrical shape of the farm settlement. The value of compact farmland had always been a point of note in economic geography and agricultural science syllabuses.

The depicted farmland gave a concrete form to this picturing of modern agriculture. For example, these educational discourses reinforced the state narratives of full occupation of allotments on the farm settlements. The Ogun State government used this narrative concerning the 1,472 hectares (3,680 acres) Coker Farm Settlement in the early 2000s. The sizes of farm allotments were another theme of this type of modern agriculture in educational discourses. For example, there was the allocation of 15-20 acres (6-8 hectares) of land to each individual farm-settler. Also, there was the theme of provision of production incentives like inputs, machinery and marketing facilities. The syllabuses had topics on problems of modern agriculture but no school cartography aided the visualising of economic decline on the state agricultural landscape. Hence, each generation of students was cognitively structured to 'see' and 'belief' the rational model of modern agriculture as the normative (Harley, 1988a). Perhaps, if revised NTMs were available, the educational system could have avoided this ideological mystification but the use of outdated NTMs remain evoking rational spaces within the rural landscape.

In contrast to this rational agricultural landscape was traditional agriculture. The depiction of the agricultural settlement scheme within the Othered landscape of traditional villages served the visual discourse of backwardness (Bellone et al, 2020). The spatial extent of the villages as small-sized squares and small-sized built-up areas reflected the continuing difference of the reformed Other and rural Other in the 2000s (Sibley, 1995). For instance, the representations of Coker village and nearby Idiroko and Asoju villages contrasted the rectangular-like representation of buildings inside the green-coloured farm settlement. Also, the isolated buildings reproduced the narrative of peasant agriculture and patchy cultivation (Floyd, 1969; Oluwasanmi, 1966). For example, across the depicted landscape are tiny black squares representing buildings. Some of these buildings are farm villages and hamlets reflecting traditional agriculture. However, their re-presentation, same as late colonial and early post-colonial mapping, (See Fig.4.16), was as isolated buildings in the original sheet.

This evokes a static and backward sense ascribed to the rural landscape. The portrayal of scattered cultivation re-presented subaltern agriculture as the Other of the rational model (Sibley, 1995; Thompson, 2008). For example, all across the NTM sheet 279 NW was the wavy symbols representing traditional farms. Unsuspecting teachers and general map users are unaware that "the information has been adapted to the message [that modernist enthusiasts] wants to convey" (Ormeling, 2014, 342). This symbolisation advocates the irrational, disordered, fragmented cultivation as scientific discourses of agriculture impressed the "distant world of tradition and primitivity to the rational practices" (Robinson, 2006, 21) of settlement schemes. This was a graphic advocate used to the political-economic advantage of the governing class to secure political support amongst the citizenry. Although this educational indoctrination using maps have not always had emotional impact on all students (Blacksell, 2006), it has influenced other students who had become adherents of the modernising ideologies of economic ordering. In cultivating cartographic literacy in the minds of geography students, there was a reestablishing of the occlusion of subaltern agriculture and the normalisation of the rational agricultural landscape.

In the 2000s, the real landscape represented by NTM 279 NW was changing even though educational discourses were still inculcating cognitive pictures of the past. A particular challenge to this state rationality of the farm settlement has been the rise of local land grab through elite conspiracy and government complicity. These are the allegations that arose in the protest by farm settlers at Coker Farm Settlement. Elite conspiracy, the settlers claimed, have led to land encroachment and land speculation that was rapidly changing the actual geography of the farm settlement. For example, the Farm Settlers Association (FSA) announced: "at a press conference held at Akinside village, disclosing that land grabbers and sand diggers have taken over larger part" of the Coker farm settlement (*City-voice*, 8 August 2016). Hence, land grabs was threatening the farm settlement's existence. "According to them", *The Punch* (Ojoye, 2016) reported, "several plots of land have been carved out of the settlement in the last few years and sold to developers for housing development and other construction activities". The execution of this land encroachment was "not only by other communities but by individuals, including traditional rulers and families" (*Ibid*, 2016).

Another allegation for the ongoing challenge on the landscape was government complicity. For example, the Chairman of the Coker FSA "said the encroachment began about three years ago and that the matter had been reported to the state government through the Ministry of Agriculture,

but all efforts had remained futile" (Ojoye, 2016). Again, the Secretary of the Coker Farm Settlement and the Secretary of Ogun State Farm Settlers Association "alleged that the invaders connived with government officials" (Awoyinfa, 2016). The Secretaries argued, "the same is the situation with other seven settlements across the state" (Ojoye, 2016). The fixed, static representation of 1966 only reproduced geometric order not human conduct within the state-space. Those acquainted with the actual terrain in everyday life were cognitively reproducing this landscape in the light of current events.

The everyday struggles of these farm settlers disputed the truthfulness of the two-dimensional, geometrical shape of the farm settlement on the NTM. The settlement scheme was sharing in the encroachment realities of the traditional agrarian villages. Nonetheless, the nostalgia of the early post-independence farm settlement culture influences the current re-envisioning of the future. For example, the State secretary noted that "the purposes for the establishment of the settlements" was "to provide food for the populace and raw materials for industrial growth" (Awoyinfa, 2016). However, he alleged that these purposes "were being defeated by the non-challant attitude of the state government' (*Ibid*, 2016). He explained that the farm settlements were the backbone "for agro-based industries in the old Western Region" (*Ibid*, 2016). This narrative of socialist modernity seems to empower the landscape pictures of the NTM regardless of its outdatedness. Nevertheless, these farm-settlers in Coker Farm Settlement in Ifo Local Government Area appealed to the Ogun State Government. They appealed for state intervention "to save the area from further encroachment as well as preserve it for the original purpose for why it was created" (*Ibid*, 2016).

While the APC-led administration in Ogun State subtly ignored the Old Farm Settlement Scheme, it has been busy repositioning 'agriculture' according to neoliberal economic ideologies. For example, the special adviser to the state governor argued, "In order to attract graduates of Agriculture and allied disciplines to farming and reduce unemployment, a model Farm Estate in Owowo, complete with modern social amenities, has been developed. The plan is to replicate this across the State" (Durojaiye, 2017). Ironically, the neoliberal models often embed the old scheme. The adviser noted, "the Owowo Model Farm Estate is modelled after Farm Settlement Schemes of the old Western Region. It has been built to create a modern farming community for youths to engage in integrated and sustainable agriculture – producing crops, livestock [and] applying best practices to ensure optimum returns" (*Ibid*, 2017). The contradictory

imaginary of neoliberal capitalism was evident as its adherents in southwest Nigeria seeks to undo the earlier socialist logic but still wanted to utilise the past developmental strive for present political-economic legitimacy. Regardless of the rise of economic liberalisation and neoliberal models, the idea of *Agbe Oko da Oko* [farm settlement scheme] continued, amongst the Yorùbá populace, a means of envisioning a modern agricultural landscape, which the governing classes intensively exploit in their promotional politics.

5.2.3 *Cartographic Representations and the Post-Neoliberal Landscape*

State maps plays a fundamental role in the structuring rhetoric of state-backed large-scale capitalist agriculture in the post-neoliberal period (Castellanet and Diepart, 2015; Jessop and Sum, 2001). I argue there has been an increasing deployment of cartographic technologies in Oyo State in the active construction of popular consent to neoliberal agricultural imaginary. Although a resurgence of the metanarrative of spatial ordering of the landscape, it seeks to displace the long-held ideas of a state-centric socialist form of farm settlement scheme with the neoliberal model (Hubbard et al, 2002; Williams, 2021). Hence, the metanarrative of modernisation and transforming the old farm settlement scheme into farm estates through public-private partnerships. These representations that blur reality and fictional pictures take on an objective perspective presented to the citizenry as representative of the entire subnational agricultural landscape (Hubbard et al, 2002).

However, these representations do not reflect the reality within the government alienated farmlands. As Pickles (2004, 35) point out "this easy tendency to see maps as naive representations of reality has also meant that the map has been easily adaptable to nationalistic and propagandistic purposes". Thence, state-oriented visual narratives of neoliberal vision indirectly misinform and intentionally encourage disinformation amongst the citizenry about the state agricultural settlement scheme. Again, the state cartographic imagery was indicative of the capitalist imaginaries of the governing class and their international partners. Rather than present this neoliberal model as a partial way of organising the world, the visualising projective technique mirrored an inevitable truth (Crampton, 2010). Therefore, this "cartographic fantasy of the powerful" (Gregory, 1994, 67) instils a moralising judgement as to the only right frame or way of seeing and thinking about the agricultural landscape.

Resource Maps and the Potential Agricultural Landscape 2017

The visualisation of the state-owned agricultural landscape did not feature in the earlier effort at revamping the farm settlement scheme after the return of civil rule in 1999. However, there was still a popularisation of this revamping narrative in the image construction of the state agricultural landscape through other official communication. For example, the state government established the 5,780 hectares Ijaye Farm Settlement in 2000 in fulfilment of an electoral promise (MANRRD, 2001, 10). The statist vision of modern agriculture evoked a stronger geographical imagination in its written publications. To demonstrate, in 2002, the state government budgeted for the "establishment of sixteen new farm settlements" (Oyo State Government, 2002). Likewise, in 2007, the state government proposed the "establishment of six new farm settlements" (*Ibid*, 2007). In addition, in 2010 and 2011 the state approved funding for the "upgrading of Ijaye, Akufo, Ipapo-Iseyin and Ilora farm settlements" (*Ibid*, 2012). However, this state rhetoric imbued in elaborately publicised budgets and development plans to infuse a popular geographic imagination of the agricultural landscape did not materialise.

Although the farm settlement scheme was an important state policy and generated immense public discourse during earlier regimes in Oyo State, the All People Congress (APC) regime in recent times took depicting agriculture seriously. Indeed, the APC–led administration in Oyo State gave the impression of improving the geospatial services in the state. However, there were challenges in providing this geospatial information. For instance, a state government surveyor remarked, "the government of Oyo State contracted a private consultant to provide a GIS [aerial photographic] facility for the state. The flight operations are ongoing, but [its operational continuance] is a function of annual funding released for the project" (State Surveyor, Personal Communication, 2019). Similarly, the idea of an Oyo State Agricultural Information Management Scheme (OSAMIS), which has a geospatial component, has not progressed because of a lack of funds. Nevertheless, the state government chose to vigorously fund small-scale promotional economic maps rather than persist in investing in medium and large-scale mapping.

In recent times, the state government has adopted a neoliberal agricultural imaginary to revive not only the settlement scheme but also all aspects of agricultural development in Oyo State. There were two components of this neoliberal agricultural imaginary introduced by the state government. These are the privatisation of potential farmland and the revamping of the state-owned agricultural landscape. The introduction of the Zero Tolerance-To-Idle Land Policy in late 2017 encouraged rural landowners to privatise their land to ensure the material development of the rural areas

(Atoyebi, 2018). Conversely, the revamping of the state-owned agricultural landscape involved the introduction of a new agricultural modernisation programme. In September 2017, the APC-led government launched the Oyo State Pacesetter Integrated Organic Farming Model at Aba Oniwasu, Aawe, near Oyo town (OYSG, 2017) (See Fig.5.8). The adherents of the neoliberal transformation in the governor's office oversaw this programme.



Fig.5.8 The Inauguration of the Pacesetter Model, Aawe, 2017 (Source: OYSG, 2020)

By contrast, the state bureaucrats at the Ministry of Agriculture, Natural Resources and Rural Development (MANRRD) sympathetic to the neoliberal developmental model also translated the state agricultural imaginary into spatial practices. Hence, there was the introduction of the Ajumose Model Farm at Ajeja, near Ijaye (See Fig.5.9). The Oyo State Agricultural Development Agency (OYSADEP), the extension arm of the MANRRD, supervised the model farm. Their objective: make agricultural entrepreneurs, transform agriculture from vocation to business, and achieve maximum productivity on the farms (Interview, November 2020). This was an effort to intensify economic liberalisation in the state, which had officially commenced during the structural adjustment programme (SAP) period (1986-1992) in the country. The Nigerian

Government (FMAWRRD, 1988, 37) stated, “The philosophy of government is that agriculture is essentially a private-sector activity with the government playing largely support roles and providing facilitating services”. The revised national agricultural policy in 2003 (Ayoola, 2007), affirmed this notion of economic liberalisation but equally emphasised state intervention in the agricultural economy (Huggins, 2017).

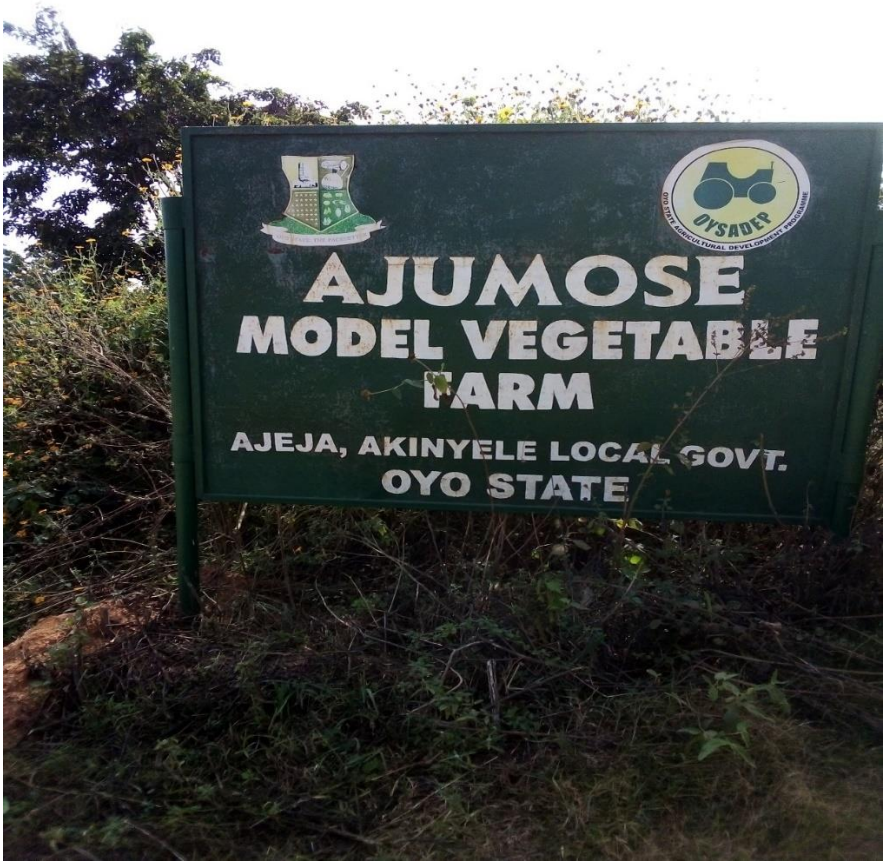


Fig.5.9 Signpost and Entrance to the Ajumose Model Farm, Ajeja, 2020 (Source: Author, 2020)

In addition, the ‘neoliberal narrative’ in agriculture was spreading in Yorùbáland. For example, the Lagos State Government had begun a drive towards this neoliberal agricultural ideology with the assistance of the World Bank in 2013. State-sanctioned neoliberal agricultural narratives deployed cartographic discourses to envision state reform at Aiyedoto and Araga Farm Settlements (LASG, 2013a; 2013b). I suggest that the incentive for this neoliberal drive in Oyo State came from the Lagos model of capitalist development (Roelofs, 2019). However, the visualisation of the agricultural narrative used in Oyo State was more elaborate. Another impetus

to move towards private investor-driven agriculture was the 'successes' of the White Zimbabwean farmers in the neighbouring Kwara State of Nigeria (Ariyo and Mortimore, 2011). Hence, the Oyo State Government vigorously set out to neoliberalise the state agricultural landscape through land policy and state institutional reforms.

Fig.5.10 was a cartographic production of the Oyo State Government in 2017 during the state agricultural programmes tagged Ajumose Agriculture (OYSG, 2017). The 'Ajumose Agriculture' was a state government programme that set out to modernise agriculture through a series of projects in the context of neoliberal capitalist modernity. This capitalist modernity from the perspective of a 21st-century notion of *Olaju* or enlightenment development echoes an elite engagement with the modern private sector (Roelofs, 2019). This engagement with the private sector meant acknowledging the neoliberal or market principles of running the state administration, which included advertising the economic and commercial potentials of the Oyo State. One such economic potential was the availability of potential farmland to woo private investors in the agricultural sector. The Office of the Special Adviser on Agriculture, attached to the Governor's office, implemented this programme. Hence, that 'advisory office' was responsible for contracting the map production. That Fig.5.10 was not a product of the state surveying and mapping agency was apparent. The graphical character of the map distinguished it as an art of the emergent private mapping industry.

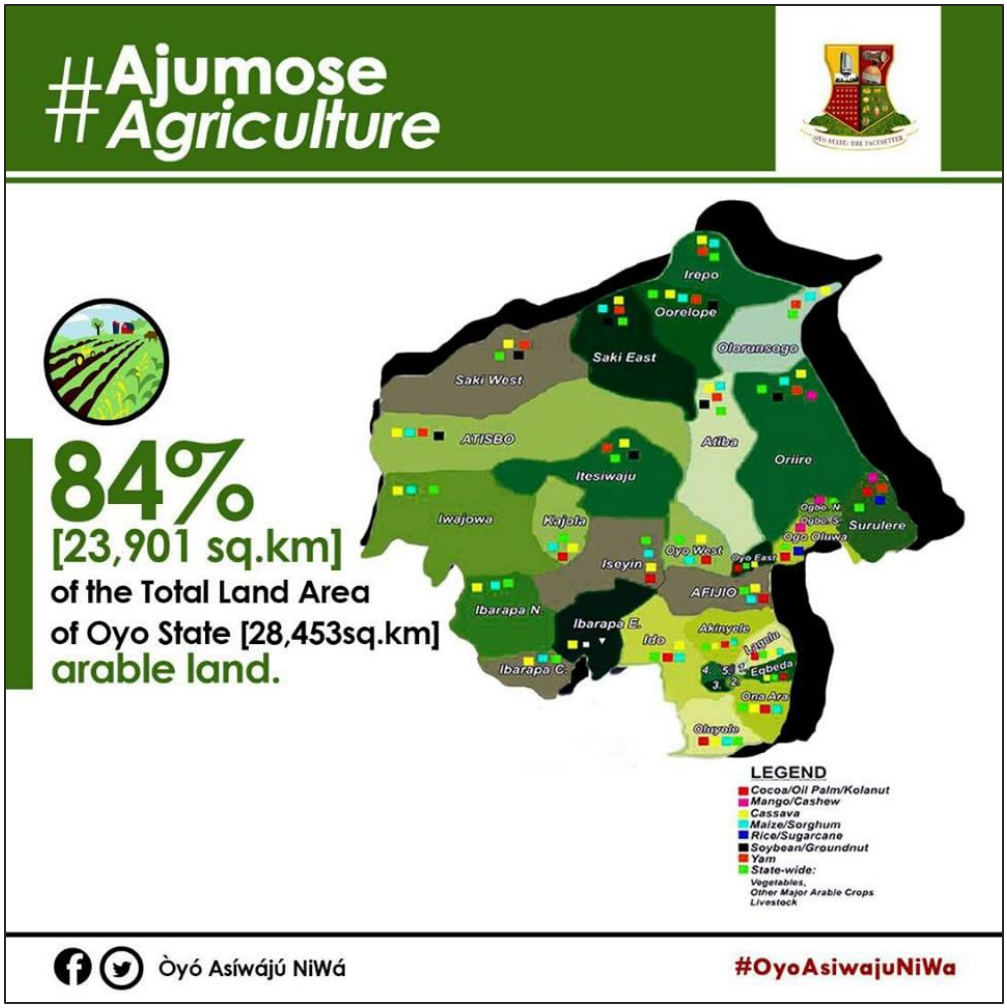


Fig.5.10 Ajumose Agriculture: Oyo State Arable Land, 2017 (Source: OYSG, 2017)

The graphic construction of the state territory employed symbols, text and colours. The map frame included symbolisations of authority. For example, the hashtag sign and the logo/emblem of Oyo State created the impression of authoritative knowledge that guided the viewer's attention into the map face. On the map face, several polygonal shapes reflected the differentiation of colours. For example, the green hue represents agriculture according to cartographic conventions. Also, the green hue had differing values used to create a balance of colour weight between the far right and far left of the map face. Therefore, the mapmakers employed graduated shading and contrasting of the polygons to draw the viewer's attention to the edges and centre of the map. Besides, the pictorial depth of the state graphic outline created an effect of solidity and active visual movement. In addition, there was also a figurative pictogram of field cultivation included on the map face. Furthermore, the indicative text provided statistical information concerning

'arable land' in the state. These combinations of graphics and statistics created an emotive engagement with the visualised geographical space. This engagement evokes the notion of active vision that seeks to enhance and extend human perception through continual visual thinking (Ware, 2007)

The emotive life of the map reflected cultural, political and local geographies framing the subjects of visual thought for the map viewer. Nonetheless, the depicted landscape was a reproduction of past geographical thought. The cultural landscape was a reflection of colonial agricultural maps. For example, the 1935 *Agricultural Map* framed the Yorùbá agricultural landscape with cash and food crops with a loud, red colour showing the cash crops. Similarly, the aforementioned 1940 *Agricultural Map* visually structured the agricultural landscape from the perspective of economic and financial value to the colonial state. Also, this spatial structuring was evident in the 1955 *Map of Nigeria: Agricultural Products* (See Fig.1.1) that was devoted to the cash crop landscape. Again, the 1960 *Map of Western Nigeria* visualising the economic landscape reflected primarily cash crop production. As Ware (2007, 126) observes, "A visual object is a momentary nexus of meaning binding a set of visual features from the outside world together with stuff we already know". Therefore, state maps reduced the complexity of crop production on the agricultural landscape to the frame of state revenue.

The political landscape was essentially a reproduction of colonial administrative geographies. For example, the territorial outline of Oyo State in Fig.5.10 was easily recognizable from Fig.4.8 produced in 1939. The local geographies of Oyo State – the 33 Local Government Areas (LGAs) – represented in Fig.5.10 was concerned with the agricultural potential of the subnational space. For example, Atisbo LGA situated to the west informed the viewer that cassava, maize, sorghum, yam, soya bean and groundnut were grown there. The legend provided explanations of these coloured symbols, which ascribed multiple agricultural potentials to each LGA. One crop depicted in all the LGA, except Ibarapa East LGA, was cassava. Although framed through administrative geography Fig.5.10 was an agricultural map concerned with diverse agricultural opportunities. The administrative landscape as I have shown in Chapter 4 "has been seen to be a central agent of modern development" (Olwig, 2009, 241).

The depicted landscape drew attention to the pursuit of the neoliberal agricultural imaginary and promotional politics. The neoliberal agricultural imaginary emphasised the value of land, the notion of comparative advantage in cassava production and the changing of the social welfarist

mindset of the citizenry. The depicted landscape affirmed the possession of a crucial factor of economic production – land. This representation of land potentiality in Fig.5.10 was reflected through statistics, potential crop and spatial order. For example, the spatial statistics – 84% – visually empowered the discourses of potential farmland. The influence of neoliberal globalisation and subnational geopolitics was evident in this state land policy (Harvey, 2005a). The policy was a response to the growing neoliberal persuasion of international financial and development institutions. For example, the African Development Bank had been crucial in the spread and support of the neoliberal model of agriculture in sub-Saharan Africa as exemplified in the Zambian Farm Blocks (Middelberg et al, 2020). Likewise, as aforementioned, the ascription of modernity to Lagos State administration also influenced the desire in Oyo State to become modern in a neoliberal fashion (Roelofs, 2016).

The agricultural content of the depicted landscape implicitly emphasised the cassava crop. Each LGA in the map was presented as a haven of agricultural crop opportunities – the several crops depicted within the areas being the evidence for the supposed private investor. However, the yellow-coloured symbol of the cassava crop present in all the LGAs highlighted the continued state intervention in cassava production. One of the Presidential Initiatives in Agriculture was large-scale cassava production in the subnational states through private sector investment (Ayoola, 2007, 42). This affirmed the influence of the notion of comparative advantage of the crop in the statist vision of agricultural development. The pictorial space of Ajumose Agriculture was promoting private profit using the citizens' commons – land. However, it reflected the contradictory features of economic liberalisation and state intervention, which characterise recent African developmental strategies (Huggins, 2017).

There was a concern to shift the thinking of the populace from the old mindset of the state-managed agricultural landscape. Hence, the APC-led government began its campaign of semi-privatisation to resuscitate and transform state agro-institutions (Gbenga-Ogundare, 2017). This was an idea of agricultural modernisation without state government culpability. Again, the suggested spatial order of the figurative pictogram reproduced the discourse of a rationally-ordered and harmonious agricultural landscape. This figurative pictogram recalled the embedded logic of spatial ordering that permeated development thinking in the postwar period that I examined in Chapter 4. Nonetheless, the securing of this portrayed agricultural vision was not by state capitalism or state socialism but through a neoliberal capitalist agricultural system. "They", as

Pickles (2004, 37) point out "may seek to manipulate relationships in order to persuade people about a particular claim to truth".

Again, there was a strong concern about using these visible achievements as tools of partisan promotional politics. The depicted landscape was included in the governor's evidential arsenal of good governance. This visual information targeted the youthful population to secure their loyalty for the next political election and the popularity of the APC regime. Hence, there was the mass distribution of this genre of maps through different media and at different events. For example, this deployment was through several media channels – television, newspapers, and social media platforms. It was evident in Fig.5.10 the use of Facebook and Twitter to reach the younger generations. Likewise, in events such as Fig.5.8, the propaganda of the governor's success was a key part of the programme. Fig.5.10, together with other state maps of this genre, promoted this neoliberal model of the agricultural landscape to stir up its acceptance by the citizenry.

These cartographic discourses of the Ajumose Agriculture Programme succinctly visualised the broad meta-narrative of the neoliberal model (Castellanet and Diepart, 2015). First, the attraction of foreign direct investment (FDI) was indispensable for efficient crop production and modernising agriculture. Secondly, since unused land was plentiful, well-ordered, large-scale agriculture was the inevitable path to rational economic development. This narrative recalls the colonial government's report of 1898 I referred to in Chapter 4. Thirdly, to achieve this modern, well-ordered agricultural system of efficient crop production, there was the need for landowners to embrace privatising their land to secure investment and increase agricultural productivity. As Robinson (2016, 21) noted, modernity was double-faced, it was "intertwined with a counterpoint, the idea of the primitive". In neoliberal thinking, only primitive agriculture will not maximise the land potential for profit. Although the stated or particular concern of the Oyo state government was the creation of farm blocks, on supposedly privatised lands, it also commenced a neoliberal reform of the Old Agricultural Settlement Scheme. State maps also mediated these concerns.

Farm Settlement Scheme and Rational Landscape 2017

The genre of state promotional maps and infographics equally aimed to inform the citizenry of the transitions of the Old Settlement Scheme from the old modern to a new modern experience. There have often been challenges amongst the citizenry to identify correctly the number of farm settlements in the state. In Oyo State, there are eight farm settlements inherited from the WNLSS

(Adebulu, 2019; Interview, December 2020). Only the Ijaye farm settlement was created during the Alliance for Democracy (AD)-led regime (1999-2003). However, several MANRRD demonstration farms are sometimes included in the list of farm settlements (Interview, December 2020). This was a reflection of the lack of sufficient information on the farm settlement scheme amongst the citizenry. In southwest Nigeria, farm settlement schemes usually come to the limelight during electoral politics when they often become a visible subject of political debate (Adebulu, 2019; Olukoya et al, 2011). Recently, the state government has been trying to absorb the settlement scheme into the neoliberal agricultural imagination.

Fig.5.11 belongs to the genres of Oyo State promotional infographics produced during the APC regime (2011-2019). The creation of the perception of an enlightened leadership was a concern of the regime. Therefore, visualised agricultural imaginaries of the state maps serve the purposes of promotional politics. Fig 5.11 embeds the spatial discourses of state development unleashed through several media outlet during the APC regime (2011-2019) – in newspapers, as wall posters, on television programmes and as flyers. It was a pedagogical device of mass education on the value of neoliberal agricultural vision. As Garoian and Gaudelius (2004, 299) observes it was "a ubiquitous form of representation, which constitutes the pedagogical objectives of mass-mediated culture and corporate capitalism to manufacture our desires and determine our choice".

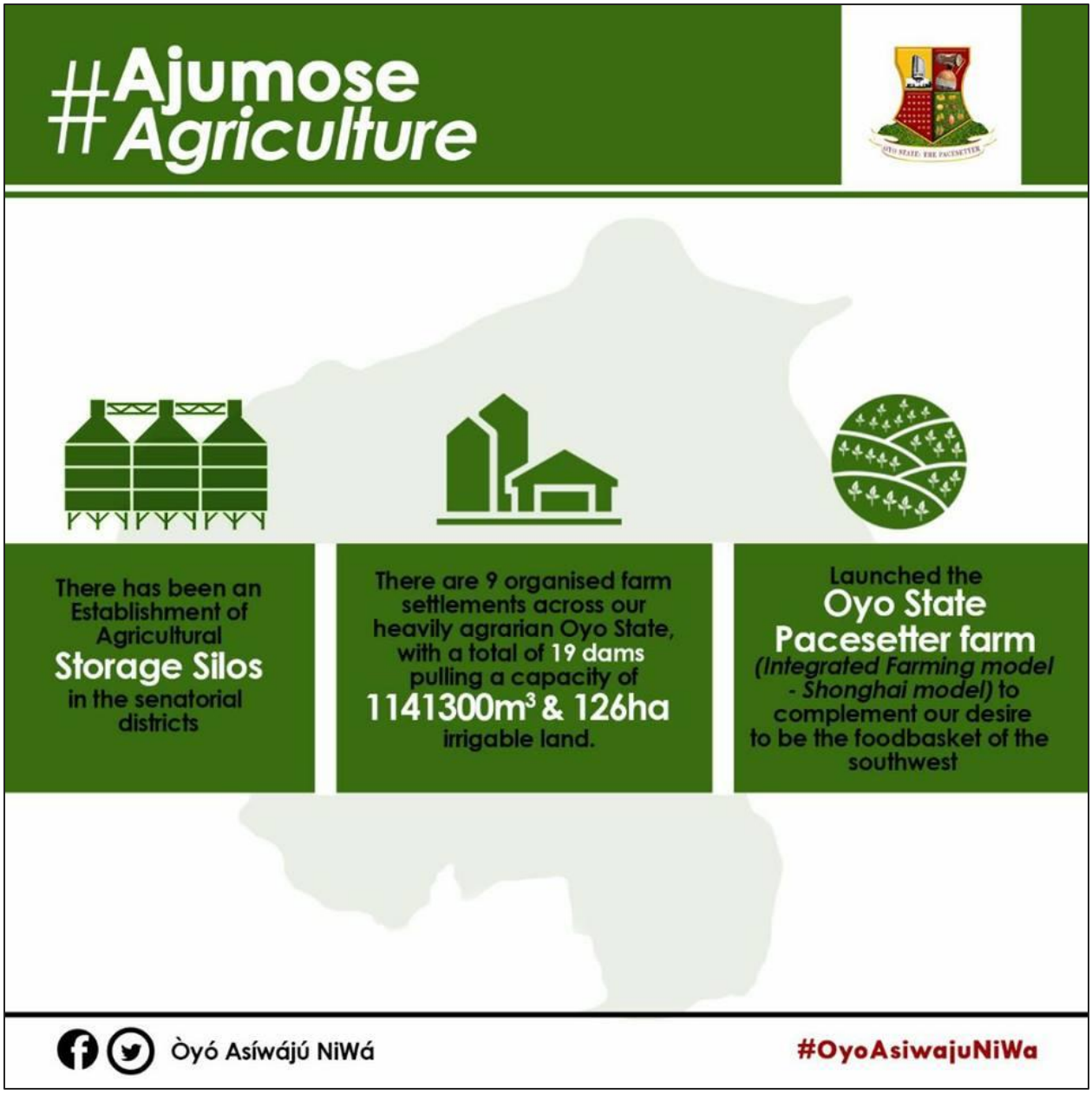


Fig.5.11 Ajumose Agriculture: Oyo State Agricultural Industry, 2017 (Source: OYSG, 2020)

On the infographic face, the territorial space of the Oyo State itself was a figurative depth stimulating the viewer with the impression that the textual information concerned the entire subnational space. Like in Fig.5.10, the infographic frame included a symbol of state authority. At the foreground on the infographic face are three pictorial diagrams and three corresponding boxes beneath them. The designing of these pictograms and boxes reflected the fundamental principles of visual hierarchy – strong colours, large shapes and bold text. This visual hierarchy organises

space and conveys a political-economic idea to sustain the visual thought of the citizenry. As Ware (2007, 3) observes, “visual thinking is a process that has the allocation of attention as its essence”.

These strategic placements of the figurative pictograms and information boxes sought the consistent attention of the infographic viewer. At the top of the infographic, with a receding state territorial outline as background, these figurations emphasised the normalising judgement of state agricultural rationality. This visual impression, encapsulated in text and pictograms, communicated the state agricultural imaginary to its citizens and residents. For example, the artistic pictogram in Fig.5.11 initiates a visual thought of rational agricultural space similar to the figurative pictogram in Fig.5.10. In addition, the square boxes gave further textual information concerning the pictures above them to answer the visual queries of the viewer. The impression created, and which the viewer ought to arrive at cognitively, was that of a striving agricultural landscape. The infographic did not only rely on its lines and graphic forms but also on pictures, words and numbers to challenge cognitively the visual imagination of the average citizen in constructing an agricultural landscape. Also, this displayed agricultural infrastructure was visually related to the key elements of the state narrative of neoliberal agricultural reform. These emotive geographies of state visualisations distorted the actual agricultural landscape. This was disinformation through intentional visual distortions. This visuality conveyed a different reality.

The infographic impressed a rational agricultural landscape and the importance of the Old Settlement Scheme. The infographic evoked a rationally ordered state-owned agricultural landscape. This was evident in the deployment of visual thinking suggesting the state’s achievement in agriculture. However, the evoked landscape was a distortion of the realities of state agricultural infrastructure. This was evident in the actual conditions of storage, farm settlements, and dams. The role of agricultural storage in the state agricultural institutions was largely unknown. For example, there were several government storage facilities – warehouses, silos, and cribs – scattered across the state. Their service efficiency was unknown to the public. In addition, some of these storage facilities were already on lease to private operators (MANRRD, 2001, 27) or neglected inside farm settlements. Yet they suggest a concern with farmers and agriculture progress in the state. Conversely, the farm settlement scheme remains the primary focus of securing public consent by the state (Gregory, 1994; Harvey, 2005b, 39). This centre of interest to the citizenry – a post-colonial socialist vision has become a burden for the current neoliberal capitalist model (Harvey, 2005a).

The order of graphical arrangement reflected the continued importance of the Old Settlement Scheme. The Settlement Scheme was preceded by the agricultural storage facility and it preceded the new face of agricultural modernisation, the Pacesetter Farm. This positioning of the scheme highlighted its continued relevance in the agricultural politics of the state, its re-envisioning and promotional politics. As aforementioned, the Ijaiye Farm Settlement materialised because of electoral promises (See Fig.5.12). This continued engagement with the previous agricultural landscape provided added legitimacy to the successive administrations in Oyo State since 1999 (Agbaje, 2014). This engagement empowered the political narrative of continuing the welfarist developmental ethos of the early post-independence nationalists. However, the character of the state-endorsed neoliberal imaginary evident in spatial practices of the farm settlement landscape revealed contradictions.



Fig.5.12 Signpost of Ijaye Farm Settlement, 2020 (Source: Author, 2020)

On one hand, there was the use of the new neoliberal model to re-envision the old scheme. Hence, the state sought and preferred private sector investors to cultivate the land rather than any mass organisation and allocation of farm holdings to a youthful population on the farm settlement landscape. The state envisions producing or attracting profit-oriented agricultural entrepreneurs. This state's imagination to revamp the state-owned agricultural landscape encountered challenges attached to the social welfarist development ethos (Agbaje, 2014; Woods, 2011). This was evident in the social attachment of nearby communities to specific farm settlement landscapes. For

example, the Lalupon Farm Settlement Scheme began as a CD pilot farm project in 1961 with much input from the Lalupon community before transforming into a farm settlement in 1964. Hence, the Lalupon community still had some interest in its operation (Interview, December 2020). This communal attachment does not encourage full-blown privatising. Besides, the years of neglect of the settlement scheme had made it difficult to absorb effectively into the neoliberal commodified model. The subnational state insists on revamping the settlement scheme in line with the interest of nearby communities, but in its socio-spatial practices, the willful neglect continues. Hence, there was deliberate viewing of the old scheme through the visualisations of the neoliberal model without corresponding reality.

On the other hand, there was a state discourse of breaking away from the past – the social welfarist model (Woods, 2011). This involved discarding the socialist notion of peasant development that aims to produce modern subjects (Foucault, 1988). For example, there was an abandonment of the idea of a cooperative village to mould farm-settlers since the 1980s. Thus, the abandoning of the notion of *Agbe-Oko d'Oko* led to the era of a non-residential farm settlement scheme in a new farm settlement such as Ijaiye (Field Observation, 2020; Interview, March 2019). The emphasis was to reduce state activity in the farm settlements to regulatory control (Harvey, 2005a). In other words, the state essentially had a rentier position (Anugwom, 2020; Pierce, 2016), whereby the farm settlement landscape was a means of generating revenue from farmers and farm-settlers. Indeed, the statistical character of the infographic embedded in the ongoing neoliberal reforms reinforced the farm settlement landscape as essentially rent collection centres.

I suggest that these visualisations, maps, infographics and stylized advertisements, also drew attention to the new scheme and its use in re-envisioning the old farm landscape as a part of promotional politics. The neoliberalising adherents of the governing class took the practical translation of the neoliberal agricultural imaginary seriously for promotional purposes. These visible achievements are ascribed to the personality of the executive governor of the state. For example, the nascent neoliberal bureaucracy in the Governor's Office, responsible for map and infographic production, knew the visualisation of the landscape served combined political-economic purposes as public opposition to the APC regime and programmes, branded as *Ajirebi*, [enforcer of hunger] emerged. As Mogues and Rosarios (2016, 26-27) noted that:

one of the important features of goods and infrastructure is the extent to which public expenditures incurred in creating them can in fact be attributed to the policymakers who are responsible for these investments. Such attribution matters to policymakers because the success with which they can rally citizens' support depends on the citizens' perception of politicians' performance in service provision and public goods delivery. This perception, in turn, is driven not only by actual performance along this metric, but also by citizens' knowledge about the actual links between the goods and services on the one hand, and politicians' efforts and decisions on the other.

In addition, these visual images aided governmental rhetoric of transiting from unsustainable agricultural practices and providing employment. They visibly reinforced the party manifesto. Indeed, the Governor argued at the inauguration of the Pacesetter Farm at Aawe (Fig.5.8) that:

Today, we have seen that the peace and socio-economic development we put in place in 2011 will be sustained with abundant food through this system and it is therefore, pertinent for our youths to see this project as their own and embrace it for the dream of a greater Oyo State to be actualized. "We are pleased to introduce the integrated organic farming, which is focused on employment generation, employment value and change innovation. The scheme is set to employ over 2 million youths and it will also provide the modern technology to sustain the project (Adeyemi, 2017).

Nonetheless, there are silences in the state visualisations that characterise the actual conditions of the farm settlement scheme. The farm settlement scheme that forms the central element in the state agricultural landscape had different levels of functionality and operational problems. These levels of functionality of the agricultural settlement scheme revealed the challenges of economic ideologies and the transitions of capitalist modernity (Lawson, 2007). The farm settlements are in various states of underutilisation, abandoned or had become moribund. For example, only seven out of the nine farm settlements are functioning in Oyo State (See Table 5.1). Noticeably, the distance of a farm settlement to the 'state government secretariat' seems to influence the level of functionality. For instance, the Lalupon farm settlement, the closest to the state government secretariat, seems more functionally occupied than other farm settlements.

Table 5.1 Government Farm Settlements in Oyo State, Southwest Nigeria.

Farm Settlement	Year Established	Current Status	Distance from Agodi, Ibadan (km)	Acreage/ Hectarage	Local Government Area

Ogbomoso	1960	Functional	106	6060/2,428	Ogbomoso
Ilora	1960	Functional	65	8009/3,203	Afijio
Akufo	1962	Underutilised	26	2200/820.33	Ido
Eruwa	1964	Underutilised	77	7668/3,067	Ibarapa
Iresadu	1964	Underutilised	163	1656/662.40	Surulere
Iseyin-Ipapo	1964	Underutilised	107	6525/2,460	Itesiwaju
Ilero	1964	Moribund	135	4392/1756	Iseyin
Lalupon	1961	Functional	25	29.57/ 12.4	Lagelu
Ijaye	2001	Functional	50	14, 320/5,728	Akinyele

Source: MANR, 1975; MANR, 2001; Field Observation and Interviews, 2020

The farm settlement landscape reflects several operational challenges, including infrastructural decay, climate change, and transportation. Several agricultural infrastructural facilities on the farm settlement are derelict. For example, Fig.5.13 revealed the storehouse at the Ilora farm settlement was overgrown with weeds. Although as the awareness of climate change increases, there was the employment of adaption strategies to problems of climate change (Borokini et al, 2014), a critical challenge for farm-settlers has been the distance between their residence and the farmland. This was an issue not hinted at in the visualised agricultural space of state promotional visualisations. The problem of transportation was obvious in the non-residential farm settlements. Indeed, a Lady Settlement Officer of the agricultural bureaucracy and the Permanent Secretary of the Ministry of Agriculture, Natural Resources and Rural Development (MANRRD) acknowledged that the foremost challenge of the farm settlements were roads and transportation (Akinselure, 2018; Field Observation, 2019; Interview, November 2020). For example, Fig.5.14 showed a road leading into the Ilora farm settlement attesting to the deplorable condition of the roads in the farm settlements. Hence, the state agricultural landscape "is littered with former spaces of economic agglomeration and robust capital accumulation that were subsequently devalued by economic restructuring and that are today spaces of deep poverty and social exclusion" (Lawson, 2010, 354).



Fig.5.13 Dilapidated agricultural input supply store, Ilora Farm Settlement, 2017 (Source: Roger Blench, 2017).



Fig.5.14 A Truck carrying logs on the Untarred Road linking Ilora Farm Settlement with Ilora Town, 2019. (Source: Adebulu, 2019)

Confronted with the inquiry about farm settlements that "they are no longer performing the functions they were intended for", the state commissioner of agriculture replied that "The verdict that they are not fully optimised at this time is somewhat contestable because every farm settlement as of today is fully occupied" (Atoyebi, 2018). Although, he conceded to "the issue of infrastructure, which is essentially the bane of farm settlements across the state, particularly access

roads, where farmers need to access their farms and to be able to move their crops from the farms to the markets". He was quick to state, "The state government is working very hard to ameliorate that problem". Thus, the headline, which formed part of the spatial discourses to which state maps and infographics sought to visualise, forges a revamping representation, "We'll construct 50km access roads in Oyo farm settlements – Commissioner" (*Ibid,* 2018). Thereafter, the spatial discourse of the state-owned farm settlement landscape became intensified amongst the governing class. For instance, not to be outdone by the state executive in their concern for agriculture, the state legislature passed a motion which:

> identified challenges hindering the optimum performance of farm settlements such as lack of good road in and around the settlements, lack of essential facilities like water, rural electrification health centres and schools. Also, up for consideration of the House Committee on Agriculture is the need for the establishment of Oyo State Farm Settlement Board to continuously oversee farm settlements and address the challenges facing the settlements in the state (Akinselure, 2017a).

Although the drive towards neoliberal agriculture during the APC regime (2011-2019) yielded no result in terms of 'massive' FDI, there was some success in local private investment. For instance, in 2015, a private investor established a 'modern' farm in the Akufo Farm Settlement (Interview, January 2021) (See Fig.5.15). This has encouraged the continued advertisement of potential landmass through cartographic discourses. Hence, in state-sponsored news outlets, the visualisation of state-spaces reflected the private agricultural company at the Akufo farm settlement. These aided the reinforcement of governmental truth, through the pictorial impressions, of a re-modernised agricultural landscape throughout the state - misleading and disinformation. This "restless remaking of space, or, more precisely, the spatial conditions of capitalist accumulation, challenges ideas that all people and places ultimately benefit" from this neoliberal agrarian reform (Lawson, 2010, 354). Nevertheless, the larger part of the old farm settlement scheme remained spaces of neglect, while new spaces of capitalist agriculture were visualised as the state's showpiece of neoliberal development (Harvey, 2005a; Radcliffe, 2012).



Fig.5.15 Private agricultural company at Akufo Farm Settlement, Akufo (Source: Author, 2020)

Agricultural Investment Landscape 2020

The conditions of the farm settlement scheme remained a point of electorate debate in 2018-2019. The People's Democratic Party (PDP), which contested and won the gubernatorial election in Oyo State in 2019, argued for a more vigorous transformation of the state-owned farm settlement landscape. The PDP-led administration took decisions that ameliorated the existing structures. For instance, the Zero Tolerance-To-Idle Land Policy ended. Similarly, there was the rebranding of the Pacesetter Model farm with a new bureaucratic image. In other words, it reverted to the control of the MANRRD (Interview, December 2020). This was a feature of African politics, the non-continuation of previous development projects by an opposing party once in government.

Rather the PDP-led administration introduced its form of modernising agriculture through the neoliberal imagination (Fabricant, 2012). There were several dimensions to this new partisan neoliberal model. First, there was an administrative dimension. For example, there was the creation of the Oyo State Investment and Public-Private Partnership Agency (OYSIPA) and the Oyo State Agribusiness Development Agency (OYSADA) (OYSG Website, 2020). Second, there were the new agribusiness programmes of the state-sanctioned neoliberal imaginary, which had three main components. The state introduced the idea of Agribusiness Park, agribusiness education programmes and the transformation of the old farm settlements into farm estates.

The creation of an administrative machinery in 2020 to neoliberalise the economic landscape revealed a drive to intensify the process. The OYSIPA was one of the new state agencies created

by the PDP regime to implement the neoliberal transition in the state economy. Although the OYSADA was responsible for the neoliberal transformation of agriculture in the new regime, the OYSIPA was the operator of the private investment drive. The statist vision of the agricultural development emphasised that developing the rural areas was achievable only through neoliberal logic. For example, the state government argued, "Agro-industries provide the basis for creating wealth within local communities and help bring socio-economic development to rural people" (OYSG Website, 2020). The PDP-led state administration announced that "The Oyo State Agribusiness Park Programme will establish an 'Agribusiness Park' in all 33 LGAs of Oyo State as a means of meeting this challenge" (*Ibid*, 2020). Llbery (1986, 25) defined agribusiness "as agriculture organised around scientific, rational and industrial business principles". It emphasised a strong relationship between agricultural production, supply and processing. These neoliberal visions become concrete and visible through the visualisations that accompany them.

There was an Agribusiness Education Programme integral to the neoliberal imagination of the state agricultural landscape (OYSG Website, 2020). There were several programmes to inculcate Agribusiness in the youthful population for agricultural employment. For example, the State Government keyed itself into the International Institute of Tropical Agriculture (IITA)'s Start Them Early Programme (STEP). The STEP's agribusiness model operates currently in Nigeria, Democratic Republic of Congo and Kenya (IITA Website, 2021). This programme focused on the high school system, but it also had a component in the higher schools of learning. The Executive Adviser to the Governor on Agribusiness noted, "our grandfathers and grandmothers have done their best in a way that we know agriculture should be done. But now, there are modern approaches that need to be adopted in agricultural practices" (OYSG Website, 2020). The STEP objective was "to steer younger generations towards agriculture and agribusiness as a career path" (OYSADA, 2021). STEP commenced in three secondary schools in 2020 but increased in 2022 to seven schools across the state (OYASADA Website, 2021).

Part of the agribusiness indoctrination was the importance of land. Harvey (2005a, 65) observed that neoliberal advocates considered "the absence of clear private property rights" a fundamental "institutional barrier to economic development". Despite the cancellation of the previous Zero Tolerance-To Idle Land Policy, the state visual discourse of the PDP-led administration implicitly affirmed the land potentiality of the neoliberal agricultural imaginary. Fig. 5.16 was an illustration in an Oyo State Government publication – *Invest in Oyo*. OYSIPA

published the investment document. This publication of the OYSIPA aimed to inform investors about economic opportunities in Oyo State.

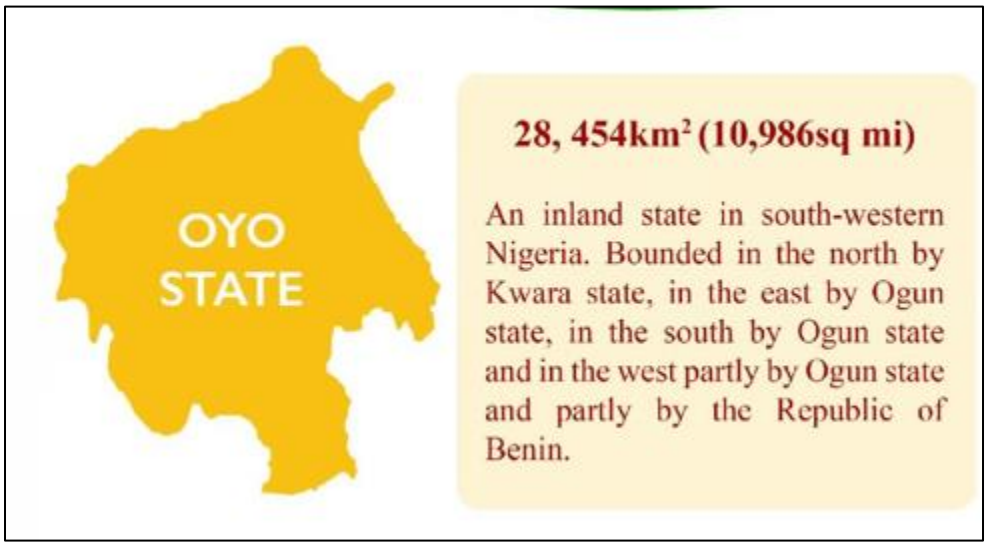


Fig.5.16 Map of Oyo State, *Invest in Oyo*, 2020 (Source: OYSIPA, 2020).

Fig.5.16 was a simple map of the territorial space of Oyo State, which was equally an infographic. The vertical perspective embeds a label that infused the space with meaning. The subnational space abstracted out the reader but simultaneously re-included the viewer as an observer (Casti, 2000, 48). Beside the graphic of the subnational space, was a piece of textual information in a box. The most prominent text in the brown-coloured box was the statistic "28, 454km2". As Edney (2019, 37, 53) contends that, the map is usually not a stand-alone cultural product but integrated within a web of cultural meaning. The representation of the territorial space was as a bounded, blank space, but curiously positioned at the top of the page. This cartographical impression complements the introductory written text, 'Oyo State at a Glance'.

The depicted administrative geography of the state reproduces colonial rendering of territorial space as an economic imaginary. The visualised space reflected more than the political geography of the state. There was the provision of basic information about the state using statistics and descriptive text. The accompanying statistical text – the state landmass "28, 454km", was significantly an economic discourse integrated with another graphic box. This box, placed beneath the map, had the title "Economic Indicator showing the Gross State Product (GSP) of Oyo State Government" (OYSIPA, 2020). The data visualisation presented the rational economy of the state using a statistical chart. Of the seven items on the 3D column, the preceding and highest column

was “Cash Crops (Cassava, Oil Palm and Staple)”. Hence, the blank territorial space embeds this array of state statistics that drew attention to available land, potential crop and the rational order of the economy.

Fig.5.16 was part of the visual forms of the spatial discourses of neoliberal development in Oyo State. The PDP-led state government proceeded in 2019 to strengthen this neoliberal vision. For instance, at a retreat facilitated through the IITA, “the Governor has pledged to transform the narrative of agriculture with the view to making it the pillar of the state’s economic development” (*IITA News*, 4 September 2019). Achieving this transformation relied on attracting “more private investment to agriculture by providing an enabling environment… [that]…would ensure agribusiness-friendly policies that would boost investor confidence” (*IITA News*, 4 September 2019). In addition, the agricultural director of the African Development Bank (AfDB) at the meeting added that “For Oyo State to move forward in agriculture, you must treat agriculture as a business” (*IITA News*, 26-30 August 2019, 2). As aforementioned, the AfDB was active in expanding the neoliberal agricultural agenda. To pursue this agenda the state marshalled diverse visualisations as part of its promotional politics. This subnational space, the accompanying visualised data and other visualisations gave meaning to the blankness of territorial space in Fig 5.16 – a potential space for agricultural capital to invest. This knowledge brand of capitalist development rationalises the subnational landscape through the ideological views of investment climate, potential farmlands, normative agricultural landscape and political class power.

One of the spatial practices of state power has been the deployment of visualisation in its quest to create an investment climate (Harvey, 2005a, 70). State power has sought to entrench the idea of neoliberal futures to secure public empathy using several conventional and online publications. For example, the visualised subnational space appeared thrice in the 44-page document titled ‘*Invest in Oyo*’. On the first page, it visualised the investment space. There was intimation for the supposed private investor of an investment-friendly state. Fig.5.16 on the sixth page drew attention to the notion of potential land (*Ibid*, 101). The data visualisations while promoting an “understanding and engagement” with economic development, was intensely doing an “ideological work, privileging certain views of the world” (Kennedy and Engebretsen, 2020, 20).

On the subsequent page, a question was raised, “Why Oyo?” Directly beneath it were the answers (OYSIPA, 2020, np). This was a list of economic registers matched with a set of economic

opportunities for the supposed investor. For instance, "vast landmass suitable for various economic activities" matched with the opportunities in the "Special Economic Zones and Manufacturing" (*Ibid*, np). Also, the register "favourable sociological and climatic conditions for agricultural production" was matched with the opportunities in "Agriculture and agro-allied industries" (*Ibid*, np). Hence, the narrative of vast landmass and efficient agricultural production together with the foremost indicator of GSP – cassava - in the 3D column reflects the continuation of the neoliberal vision of the agricultural landscape. Finally, the visualised state-space on the twelfth page aided the notion of 'New Oyo Opportunity'. Therefore, visualisation was crucial in aiding the creation of the investment landscape.

A fundamental part of this investment landscape was the notion of potential farmland (Castellanet and Diepart, 2015). As aforementioned, a core aspect of the state's visual advertisement of neoliberal agricultural imaginary was land potential. These visualisations advocating potential farmland are key to the narrative of solving the problems of underutilisation of land, agricultural production, provision of employment and the means to poverty reduction. For example, the state government website announced that "The state has untapped and available arable land suitable for large-scale farming with a cultivable size of about 2,710,793 Ha" (OYSG Website, 2020; OYSIPA, 2020). Unlike Fig.5.10, there was no display of arable land, but the intended message in Fig.5.16 was similar, there was potential land for neoliberal agricultural investment. The spatial discourse of potential land for private investors becomes a taken-for-granted commonsense knowledge (Harvey, 2005a, 116).

Transforming the potential farmland was also reflecting through the visualised normative landscape. The visualised normative landscape mirrored the neoliberal discourses of competitiveness, scientific agriculture and entrepreneurship. The discourse on competitiveness reproduced the norm of cash crop cultivation. Hence, "although a lot of agricultural commodities are produced in Oyo State …. our government will prioritize the conditions for the investments in those commodities that the state has comparative advantage producing, in line with the Agricultural Transformation Agenda (ATA). This ATA is aimed at growing food, providing employment and creating wealth" (SMCO, 2018, 19). The agenda was about agribusiness, with the rhetoric of food production being a secondary addition, reminiscing the colonial agricultural policy rhetoric of the late 1950s.

Similarly, the potential landscape embeds the idea of cassava as the foremost crop production of interest to the subnational state. This PDP regime had envisioned in its *Oyo State Road Map for Accelerated Development* the agricultural landscape with that particular concern – the production of cassava. This primary agricultural commodity, cassava, was a staple food crop, but its implicit comparative advantage was in the production of "fuel ethanol and alcohol" (SMCO, 2018, 19). Therefore, cassava had taken the place of oil palm of the nineteenth century and cocoa of the twentieth century in Yorùbá agriculture. Carter et al (1992: Figure 12, 32) in *An Atlas of Cassava in Africa* observed the increase in the cultivation of this crop closer to urban locations in southern Yorùbáland. They "confirmed that all farms in south-west Nigeria had a larger area in cassava than they had twenty years ago" (1992, 42). Neoliberal vision conceived that this subaltern agricultural aptitude needed efficient productivity through scientific methods to achieve its maximum potential.

The notion of scientific agriculture reflects the spatial order envisioned in the neoliberal agricultural imaginary (Hopkins, 2020, 327; Luig and von Oppen, 1997, 10). For example, in the state publication "*Invest in Oyo*" was a figurative pictogram – that mirrors the textual narrative pictorially through symbolic drawings of sunshine, a tractor, a plant, a farmworker with a shovel and a drop of water (See Fig.5.17). As Pickles (2004, 38) observes, "the map is only part of a collage of images". The symbolic pictogram embeds the spatial narrative depicted in Fig.5.10 and Fig.5.11. These symbolic drawings were at the foreground of a pictorial background of a rationally-ordered farmland. The figurative pictogram communicated the state imagination of the agricultural landscape. This was a reproduction of an ordered space of the high modernism of the late colonial period (Scott, 1998). As Pickles (2004, 32) argues "these are not mere representations of reality but come to represent objects whose existence is in part conditioned and produced by their representations". The envisioning of ordered farmland across the 'vast landmass' depicted in the map partly conditioned the PDP version of the agro-investment production model. Therefore, the state representational practices were doing the visible work of capitalist ideologies.



Fig.5.17 Figurative Pictogram envisioning aesthetically pleasing, well-ordered farmland, *Invest in Oyo* (Source: OYSIPA, 2020).

A key element of the neoliberal imagination is the notion of entrepreneurship (Harvey, 2005a, 23; Woods, 2011, 131). A fundamental challenge in southwest Nigeria is youth employment. More challenging was the increasing view of the youthful population about agriculture. This condescending view, partly generated by the willful neglect of agriculture, inattention to rural development and denigration of the traditional agricultural system, has become a concern to the state. For instance, the conception of STEP in Oyo State includes addressing this growing psyche. Hence, OYSADA (Website, 2021) aimed to "rid young secondary school students of counterproductive mindsets about agriculture". Again, the neoliberal economic logic provided the state with the framework to shift socio-economic responsibility to the individual (Harvey, 2005a, 181). This is a view that is gradually taking effect among some urban citizens. An objective of the state-sanctioned neoliberal imagination is a youthful farming population whose land-holding allocations in the farm settlement landscape reflected self-employed agribusiness. By adopting the trendy and fancy term, agripreneurs, there are efforts to popularise this new neoliberal agricultural imaginary amongst the younger generations (*Ibid*, 2021). Indeed, there has been visualisation of this devotion to developing the next generation of modern farmers to familiarise the citizenry with the progress made by OYASADA (See Fig.5.18).

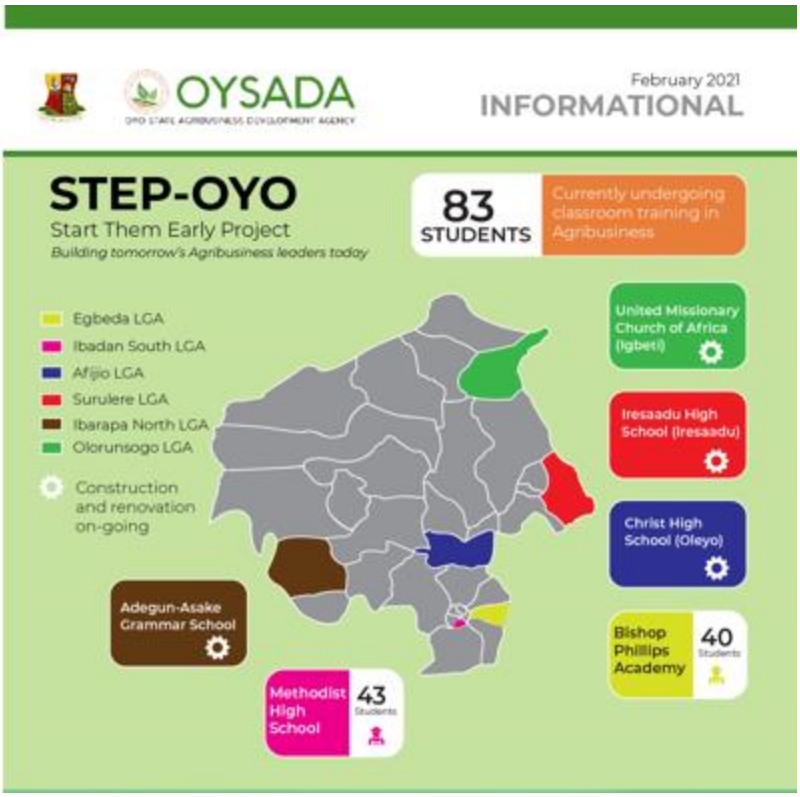


Fig.5.18 STEP Infographic, Oyo State, 2021 (Source: OYSADA, 2021)

This ideological rationalisation for adopting neoliberal economic policies permeates the governing class (Harvey, 2005a, 179). The drive towards establishing a neoliberal capitalist agricultural space was across the political parties. For example, during the first PDP regime (2003-2007), there was an effort to attract Chinese and Israeli investors into the agricultural sector (Ogunyemi, 2005). Hence, the deployment of visualisation to aid the neoliberal model of agriculture in Oyo State was not an APC affair but a whole-heart thrust of the governing class. Similarly, the new PDP regime, inaugurated in May 2019, has begun advertising a neoliberal agricultural landscape prior to its inauguration. Therefore, these visualised spaces were a continuation of the spatial narrative of arable land for investors as in the previous APC regime (See Fig.5.10). The PDP framed the spatial discourse within the ATA. The ATA, an agribusiness ideology, was the West Central African version of transforming the traditional agrarian economy into a neoliberal agricultural landscape. This neoliberal transformation agenda intensified, several years earlier, during the tenure of the federal Minister of Agriculture, Adewumi Adesina. Dr Adesina, who was a former Vice-President of Alliance for a Green Revolution in Africa (AGRA) and later head of African Development Bank (AfDB), argued that:

We were not looking at agriculture through the right lens. We were looking at agriculture as a developmental activity, like a social sector in which you manage poor people in rural areas. But agriculture is not a social sector. Agriculture is a business. Seed is a business, fertiliser is a business, storage, value added, logistics and transport – it is all about business (cited in Green, 2013).

Economic Maps, Spatial Ordering and the Legacy of the Othered Landscape 2021

The neoliberal logic informed the state-owned farm settlement reforms (Harvey, 2005a). The issue of farm settlement reform has been a fundamental topic during and after elections since the return of civil rule in 1999. For instance, envisioning the transformation of the farm settlement scheme into a neoliberal agricultural landscape was in the *Oyo State Road Map* document of the PDP while it sought electoral victory. In 2018, the PDP suggested, "Upgrading of all the agricultural farm settlements to attract youths to agricultural practices" (SMCO, 2018, 23). Some months after its inauguration in office, the PDP-led government advanced the narrative of revamping the farm settlement landscape through print and electronic media. Several headlines in July 2019 heralded these representations of the agricultural space. For instance, the news discourse indicated this as "Makinde to resuscitate old farm settlements" (Adebulu, 2019) or "Makinde to revive 9 farm settlements established by Awolowo" (*InsideOyo*, 21 July 2019). Making this narrative visible provides a pictorial space to engage the thinking of the citizenry.

There was the strengthening of this image of reviving the farm settlement scheme as the governor's press secretary discussed a Central Bank of Nigeria (CBN) credit facility. The governor's pressman explained that "He [governor] has, therefore, come to the inspired decision to devote the said loan to the reconstruction and standardization of the Farm Settlements in Eruwa and Akufo areas of Ibadan" (*Vanguard,* 12 October 2019). Besides, these image constructions of specific spaces took on broader geography of the agricultural landscape. For example, the governor's spokesperson said, "it is expected that when the two Farm Estates fully come on stream, the output therefrom would easily offset the loan secured while also providing the seed money for the reconstruction of the remaining seven Farm Settlements (*Ibid,* 2019)".

Consequently, the state government introduced its Private-Public Development Partnership (PPDP) meant to transform the 'farm settlements' into 'farm estates' (OYSG Website, 2019). This PPDP Farm Estates, the state government promised, would commence as a pilot scheme with two farm settlements, at Akufo and Eruwa in October 2019 (See Fig.5.19 and Fig.5.20). The task of

OYSADA was to transform the old social welfarist farm settlements into capitalist-oriented farm estates. OYSADA reported, “The 820 hectares Akufo farm settlement which has courted the attention of Oyo State Government for facelift” through agribusiness would cultivate “farm crops … using modern agricultural practices” (OYSADA, 2021, 3, 5). The only difference between the notion of the old farm settlement and the new farm estate, I suggest, is its new neoliberal character of the governmental space. Hence, cartographic mappings employed to visualise the farm settlement discourse has been doing the work of political propaganda for capitalist modernity.



Fig.5.19 Old residential buildings of Farm Settlers, Akufo Farm Settlement, Akufo, Ido LGA (Source: Author, 2020)



Fig.5.20 Signpost of the Eruwa Farm Settlement, Oyo State (Source: Author, 2020)

Fig.5.21 depicts Akufo Farm Settlement in Ido Local Government Area (LGA), and a locator map, of Oyo State. These maps accompanied the report of an environmental and social impact assessment (ESIA) made available to the African Development Bank (AfDB). The AfDB was one of the international partners of the Oyo State Government in its drive to make Oyo State the "hub of agribusiness" in Nigeria (*IITA News*, 26-30 August 2019, 1). The ESIA (OYSADA, 2021, 2) was conducted because the

> Oyo State Agribusiness Development Agency (OYSADA), recognizes the importance of comprehensive Environmental Planning and Management to the success of any project and is committed to the necessary studies to understand the environmental system of the proposed project area in order to address areas where significant negative environmental impacts (natural, physical and social) may occur, with a view to addressing them, adequately.

Hence, the map production reflects the elusive rhetoric of environmental sustainability from the governing class. Nonetheless, it emerged from the neoliberal implementation mandate of OYSADA. The construction of the main map, depicting the location of the farm settlement, employed an online base map. There was a credit to Open Street Map in the map legend as the map source. Nonetheless, the source of the spatial extent of the depicted settlement scheme must be from the MANRRD. The visualisation seems amateurish in appearance; apparently, produced with little adherence to technical cartographic convention (Dent et al, 2009, 18). This probably reflects another dimension in the character of profit-oriented neoliberal cartography.

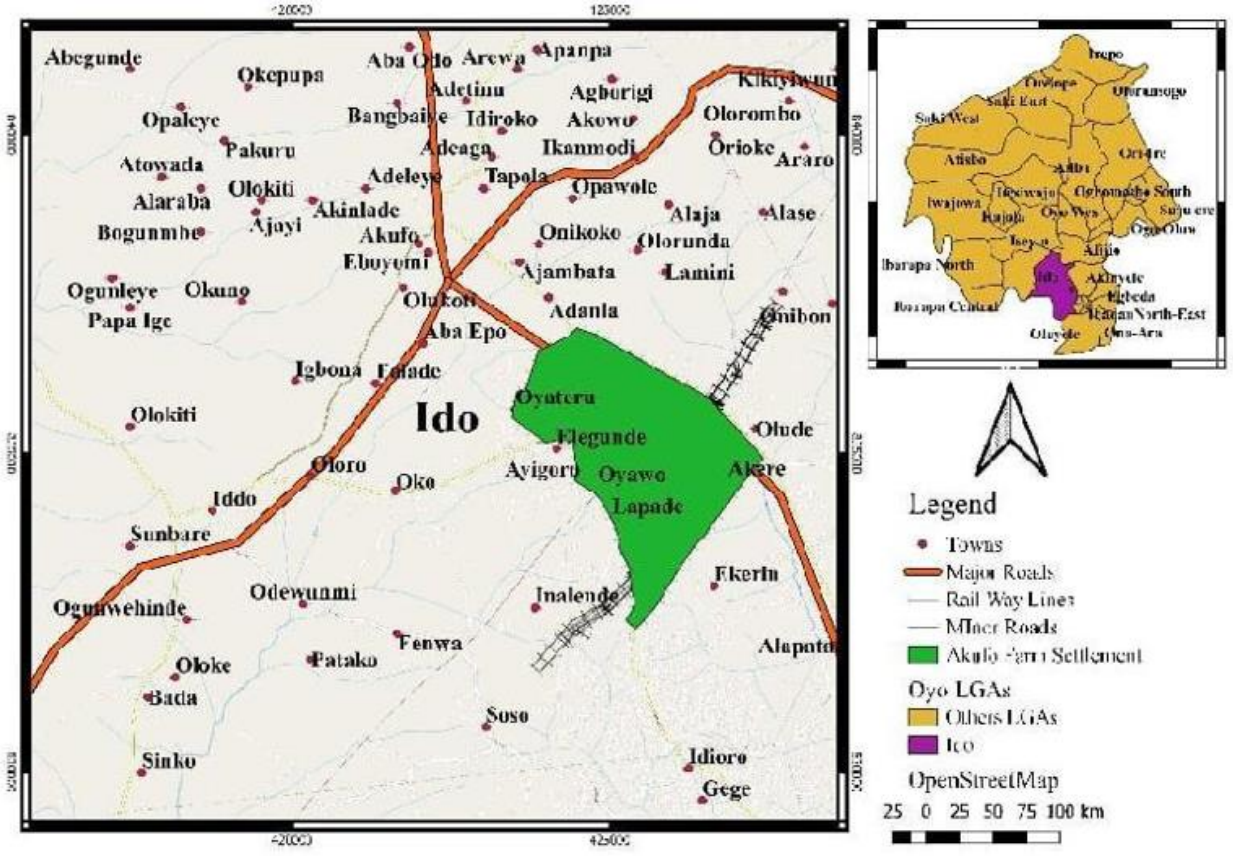


Fig.5.21 Map Showing the Location of Akufo Farm Settlement [with a Locator Map of Oyo State], OYSADA, 2021 (Source: African Development Bank, 2021).

The graphic production employed geometric tools to display the governmental space. For example, the polygonal shape, dominating the visualised space, reflected some features of visual hierarchy. There was a placing of the governmental space over the basic geographic information of the online base map. The map reader can infer from the map symbolisation that the mapmaker(s)

were concerned with the location and extent of the governmental space rather than an integrated picture of the rural area. Hence, the amateurish impression of the graphics lacks visual balance. Likewise, the brown-coloured linear symbol with its rough edges reinforced the focus on the green-coloured shape. Again, there was a contrast between the depicted state-space and the scattered black dots of other rural settlements. The graphic impression was of rural geography dominated by the impressively coloured agricultural space.

The map's purpose was the Akufo farm settlement; therefore, information on the surrounding rural hinterland might be suppressed (Wiebel and Dutton, 2005). However, the visualisation suggests several topographic features that contrast the actual physical reality. For example, the depicted road from the west linking the road junction towards the old Akufo village was not a major road as stated in the map legend. The road shown in Fig. 5.15 above revealed a narrow road towards Akufo village passing through the front of the private agricultural company at Akufo farm settlement. Although, the road was undergoing reconstruction, as a major road from Awotan towards the farm settlement owing to the neoliberal vision (Harvey, 2005a), the general state of roads in Northwestern Ibadan hinterland was not different from the rest of the subnational space. Again, the railway was not a discontinuous feature but a continuous entity across the landscape of Ido LGA. Besides, the symbolisation of the railway on the map face does not match its depiction in the map legend. Geographical information about the myriad of towns and villages might not be necessary, but the visualised villages reflect the geographical Othering of rural settlements. The visualisation continues a representational practice that normalises the modernist landscape while contrasting the Development's Other (Kippler, 2014).

Fig.5.21 was part of the ongoing visual dimension of the spatial practice seeking to transform the agricultural landscape. This envisioning of an agricultural landscape in maps and other visualisations has a considerable impact on the social practices of farm settlement schemes. These practices are evident in transportation infrastructure and the wider spatial discourses of neoliberal development about subaltern agriculture in peri-urban areas and the rural hinterland. As aforementioned, the state bureaucracy acknowledged that the fundamental challenge of the farm settlement was roads. For example, the state government pushing ahead its imaginary began the (re)construction of the Awotan-Akufo road. The road was hurriedly built to meet up with the neoliberal vision of transforming Akufo farm settlement into a full-fledged agribusiness farm estate.

There was a projection of this visual envisioning of the state-sanctioned neoliberal imaginary from the state-spaces to the general agricultural landscape. This visualised imaginary reflected misinformation about the state agricultural spaces, the inevitability of the neoliberal development path and the neoliberal challenge to subaltern agriculture in rural areas. The neoliberal imaginary consistently represented efficient state-spaces of agricultural production as part of the investment advertising of the subnational space. For example, the public consumption of the genre of state economic maps, exemplified by Fig.5.10 and Fig.5.11, "has become everything, their relation to real or authentic referents no longer an issue" (Hubbard et al, 2002, 143) This aesthetically pleasing sight – a hyperreality – feigns the actualities of everyday landscape privileging the 'trendy views' of neoliberal agents in the governor's office. It is deliberate disinformation, which these visualised landscapes, are perpetuating. As I have shown above, the deplorable conditions of the settlement scheme revealed that visual statements of these state maps do not match the actual spatial practices of the state in the subnational space.

The state-sanctioned agricultural imaginary emphasised the neoliberal agenda as an inevitable development path (Williams, 2021). This vision strives to displace and replace the social welfarist ideologies of the early post-independence period. By so doing, it condemns the traditional economic solidarity that was similar to the social welfarist model (Ayoade, 1985; Fabricant, 2012). Hence, the governing class has reworked the notion of *Olaju* to create and embody a version suitable for free-market ideology (Peel, 1984; Roelofs, 2016). This imagination is becoming commonsense knowledge and a spreading socio-economic thought amongst the citizenry without explicitly publicising the motive of private profit (Harvey, 2005a). For example, this neoliberal vision is becoming the subject of discussion amongst the citizenry in print media outlets in Ibadan. Therefore, as a device of persuasion, these varied types of small-scale state economic maps contribute to manipulating the citizenry to enhance the case for a neoliberal agricultural landscape. Enhancing the case for the neoliberal vision meant re-creating '*Development's Other*' (Kippler, 2014). The cycle of capitalist modernity's reproduction of space in its image continues, employing maps to do its sequential work of political-economic propaganda.

These representational practices of capitalist modernity have implications for subaltern agriculture in the rural hinterlands (Lawson, 2010; Wylie, 2007). The metanarrative of agricultural modernisation continues with visualisations giving concrete forms to the neoliberal imaginary. For instance, the visualised farm settlement in Fig.5.21 contrasts the 'Other' villages that lacked road

communication and other social facilities. Like its colonial legacy, these geographical visualisations are small-scale maps with its obvious suppressed information (Crampton, 2010). Deployed in the narrative of modernising the landscape they seem to reinforce the only problem of the subnational state - traditional smallholder agriculture. For instance, the PDP-led administration used the well-rehearsed rhetoric of high modernism in pushing ahead its preference for neoliberal agriculture (Scott, 1998): "some of the challenges that make Oyo State lag behind other states include: subsistence agriculture which accounts for about 70% of total employment' (SMCO, 2018, 7). These 'neoliberal' governments did not consider their lack of decisive action in rural development as part of the problem of the rural landscape; rather they reinvented a space of difference (McEwan, 2019).

Again, in criticising the APC regime, the PDP campaigners retorted, "despite the existence of high potentials for market-oriented agricultural production, farming activities in the state has been locked down mainly for subsistence by the present administration. It has therefore been very difficult for the sector to play its expected role in the economic growth of the country" (SMCO, 13). Hence, the neoliberal imaginary has continually denigrated subsistence farming. These anti-political economic imaginations whip up sentiments for accepting the neoliberal vision (Walters, 2010; Williams, 2021). In public forms and dialogues, traditionally primitive and subaltern agriculture, remains the challenge. The statist vision recast land grabs as a necessary approach to economic growth. The cartographic discourses aiding this agro-economic propaganda continue to fill the eyes and minds of citizens with the impression of a neoliberal large-scale agricultural landscape (Blacksell, 2006; Thompson, 2014). There was a complete erasure of traditional farming in these cartographic fantasies of agricultural opportunities (Gregory, 1994).

This obvious absence of traditional agriculture can partly explain the continuous poor or almost non-existing government agricultural extension services to traditional farmers in rural areas in the contemporary period. Although government propaganda claims support for traditional farmers, farmers in Northeastern Ibadan hinterland contest this government claim. For example, farmers at Edun village explained that there was no presence of the government agricultural extension service around the remote villages of northeastern Ibadan hinterland (Interview, December 2020). Throughout the early post-independence WNLSS programme, farm-settlers numbered in their thousands, but there were millions of farmers in Southwest Nigeria. Similarly, the numbers of participants in the current neoliberal agricultural programmes are in their tens of

thousands. However, the entire farming population of Oyo State numbers in their hundreds of thousands. For example, the state government informed readers of its investment publications: "Oyo State has a population of 415,030 farm families (2007 Crop enumeration Exercise)" (OYSIPA, 2020). The vast majority of the farmers are of the subaltern classes. How do these subaltern farmers think, perceive and know - envision the agricultural landscape? How has the agricultural settlement scheme been re-interpreted by the subaltern?

5.3 Subaltern Representations of the Agricultural Landscapes of Ibadan Hinterland

Verbal representations are the fundamental medium of indigenous and subaltern geographical sense-making, but they have adaptive mechanisms in moments of cultural encounter. Therefore, I argue that the discursive configurations of indigenous and subaltern agricultural geographies had structuring effects that differ from modernist framing of the same physical landscape. The landscape configuration that evolved through this practice, as Olwig (2009, 245) contend, "focused ….upon landscape as the historically constituted place of a polity and society". Cognitive and performative mappings are part of cultural practices in the everyday geographical sense-making of the agricultural landscape (Holloway and Hubbard, 2001; Rigg, 2007). For instance, mental images of satellite farm villages were a central part of spatial thought of the urbanised cultural landscape of precolonial Yorùbáland.

This verbal representation reflected the continued reworking of the idea of an outlying production centre in Yorùbáland. Conceptualised as *Agbe Oko d'Oko* [Living and working on the outlying farm], I contend that this agrarian spatial thought has been undergoing adaptations in different historical economic periods. As Hopkins (2020, 75) posits, "Agricultural history in the pre-colonial period is a story of innovation rather than stagnation". This innovation continually informs agrarian spatial thought in colonial and post-independence periods. These cognitive and social mappings were responsive to encounters with colonial rule and capitalist modernity (Loomba, 2005, 64; Scott, 1985). For instance, there was the adaption of verbal and visual communication by subaltern farmers, in the process of social reproduction, non-capitalist commercial agricultural production and engagement with the colonial state. There is a rethought of this spatial practice in the post-neoliberal period in the hybrid logic of the CFS. Hence, subaltern groups are using verbalisation of space and written representations to innovate modifications and to contest neoliberal designs and visions upon the post-colonial agricultural landscape.

Although incorporated as toponyms into the cartographic map of 1860 drawn by John Arrowsmith based on Daniel May's 1858 fieldwork, how was a farm village spatially represented in indigenous knowledge? As Austin (1998) noted several individuals within a culture do share similar place cognition. Hence, what conceptual images constitute the customary map of an indigenous farmer in precolonial Yorùbáland? What do the 163 villages reported by Alvan Millson (1891) mean in indigenous knowledge to his Yorùbá informants? Unlike the modernist and Othering representations of the 1960 Plan of Ilora Farm Settlement (Chapter 4), how do subalterns visualise agricultural spaces during moments of cultural economic encounter? What adaptive mechanisms reflect in subaltern geographies as they reinterpret the settlement scheme? In what ways was the economic landscape represented and communicated?

5.3.1 *Mapping the Satellite Farm Village – Indigenous Geographies of the Pre-Colonial Agricultural Landscape*

The cognitive maps of agricultural spaces in indigenous geographical knowledge are usually verbal representations. This was evident in the notion of the farm village during the precolonial period. I argue that the spatial perception of the agricultural landscape shared by indigenous farmers embeds not only economic character but also a sense of belonging and identity. The Yorùbá ethnic group in the pre-colonial period was essentially town-dwellers, every peasant being a townsman (Fadipe, 1970[1939], 158; Mabogunje, 1974). The ethnic group had attained a high level of territorial organisation before the eighteenth century (Hinderer, 1872, 59-60; Oyeleye, 2001, 406). Indeed, scholars highlight evidence of the Yorùbá town system by the 1500s (Wheatley, 1970, 397). Most of the town population worked in agricultural and related occupations (Fadipe, 1939; 167; Usman and Falola, 2019).

Atanda (1980, 24) contends that by 1800, agriculture as the basis of economic development in Yorùbáland had been well established. The development of the farm village practice evolved together with the urban culture. As towns grew laterally, farming hamlets were located further away from the agglomerated population. This agricultural practice, probably, became a fundamental part of the Yorùbá spatial thought by the late fifteenth century (Morgan, 1959a, 52). Therefore, the outlying production centres, which were integral to urban sustenance, I suggest must have originated before or around the 1500s and by the 1800s the spatial shape of the farm-village had become everyday knowledge of the populace. The mental constructs of these centres of

primary production were crucial in the socio-cultural development of the people. The mental image of agrarian spatial organisation in precolonial Yorùbáland, between the 1500s and 1800s, involves three agrarian spatial practices. These are the *Oko- Etilé*, the nearby farm, *Oko-Òdàn/Oko-Arin*, middle farm, and *Oko-Egàn*, the far-away farm (Adeoye, 1979, 105-116; Johnson, 1921, 118; Ojo, 1970, 466).

The nearby farms were often located either within the town walls or just outside the town walls. The location of the middle farm was between the nearby and far-away farm. In contrast to the first two farm-types, the far-away farms were farther from the town. These farm-away farms had villages attached to them. These farm villages were different from the usually larger, residential villages with a farming community. Rather, farm villages are essentially farming spaces. They were the location of large-scale cultivation of crops and animal rearing for commercial purposes. Again, these farm villages as "places of work and temporary residence" were satellites of the urban settlement (Fadipe, 1939, 147; Goddard, 1965). Hence, the farm village practice was an integral part of the urban culture.

The perceptual map of the farm village, *Oko*, consists of two landmarks or spatial configurations: *Abúlé*, the village layout and *Oko*, the actual farm layout. The village layout consisted of the buildings and the farmlands. The layout had an identical geometric plan with the urban plan at a smaller scale or size (Johnson, 1921, 90). Indigenous geometry of the village and farm layout was often irregular. The two main types of buildings in the farm village were the *Ahéré*, farmhouse and the *Àká*, the barn (CMS, 1913). The farmhouse, a key material structure of the farm-village, loomed large in the mental image of the farming landscape. As a Yorùbá proverb attests that *Ahéré ni yio kehin oko, atta ni yio kehin ilé* (The farmhouse remains to the last, [upon the ground], and the ridge of the roof completes the building) (Burton, 1865, 227). In contrast, the barn was relatively smaller in the spatial imagery of the village.

The farmlands, located around the village, interspaced with forestland, scrub or parkland. Sometimes these scattered fields seem like a rough radial pattern around the village. The indigenous concept of cardinal points, employing analogy with the human body parts, framed the directions and distances of spatial objects in the village and farm layouts. The use of human analogy was common in these farming spaces. As Fadipe (1939, 57) notes, "the names of such parts of the body as the head (*Orí*), ear (*Etí*), mouth (*Ẹnu*), side (*Ẹgbẹ*), buttocks (*Ìdí*), foot (*Ẹsẹ*), stomach (*Inú*), back (*Ẹhín*), eye (*Ojú*) has been extended by analogy to refer to various parts of

spatial objects". The notion of *Abúlé* was a general topographic descriptor, but other terms distinguish its activity, size and general reference. For example, the satellite farm village often began as *Abà* – a small size farming hamlet (CMS, 1913). This concept of hamlet indicated an agrarian settlement usually of a smaller spatial extent. Similarly, there was reference to the entire farm village, as aforementioned, as *Oko,* farm, in contradistinction to the actual farmlands.

Specifically, the *Oko* referred to the total farmlands and the individual cultivated fields near the farm village. Since the farm village represented a production unit – the lineage compound in the urban settlement, the cultivated fields belonged to lineage members. Besides, there were other farm villages around. Therefore, there was the need for boundaries where farmlands were adjoining one another, as "many persons resided on their own separate farms" (Tucker, 1855, 13). Although *Ona,* paths or roads, sometimes served as boundaries (Clarke, 1972, 260), there are other methods of spatial demarcation and identification for boundary purposes when farmlands of different individuals are close to one another. Indeed, visibly these farmlands seem indistinguishable. However, farmers, beside 'small paths', used natural features as *Àala,* boundary. Such natural features included streams, rock outcrops, trees and even deliberately planted trees, such as the *Peregun* (CMS, 1913, 194). The type of crop production usually determined the organisation of the farm layout. The farm layout had zero-tillage or soil tillage patterns. A common tillage pattern made use of *Ebè,* heaps. As Burton (1863, 62) observed in outlying farms "the land is carefully prepared with the hoe, and dwarf heaps, in whose summit a hole is drilled receive the seed". Either zero-tillage or heaped tillage, the farm pattern often reflected a subjective geometry of planting certain crops.

Distance and direction on the farmland involve simple methods. The heaps serve as a measure of size and distance within the micro-geography of individual farmland (Atteh, 1980). The notion of direction on farmland, as aforementioned, employed a microcosm of human analogy. For instance, farmers usually commence the locational comprehension of their farmlands from the *Eréko,* the north or upper part of the farm. This spatial concept *eréko* (*Orí-Oko*) originate from the analogous relationship between the head and the top or upper part of a spatial feature (Fadipe, 1939, 58). Also, several lone-standing trees became cartographic labels used on the farming landscape. Toponyms, as Uluocha (2015, 181) observed, "serve as cartographic labels that can be used for orientation, navigation, recreation, and reference points". For instance, toponyms associated with trees serve to describe locations and explain field patterns. Hence, descriptions

like *Ìdí-Ope*, or *Ìdí-Oro*, were used regarding particular locations on the individual farmlands. Besides, these trees could serve as landmarks in the farm village. The descriptive text or linguistic label, *Ìdí* refers to the particular location of the tree known as *Opẹ, or Oro.* It was also an analogous relation between the sitting buttocks and location. This notion of the embodied world represents one of the fundamental elements of spatial patterning of everyday life.

The contextual positioning of farm villages contributed to the mental picture evoked. The environmental systems, agronomic practices and social institutions all contribute to the imagining or spatial picture of the farm village. Environmental factors, primarily weather, had an important impact on the mental image of the farm village. Seasonal cycles governed agriculture in either nearby urban farms or far-away farm villages. As Hopkins (2020, 72) observed concerning the pre-colonial West African agricultural economy, "Rainfall is particularly important in this context". For example, during the early rains, the state of vegetal growth on the forest, fallows and farmlands in and around the village creates a different geographical imagination from the season of the latter rains. Hence, *Aṣerọ Òjo* – the first rains, meant a tilled farming space as the planting of crops begins. At height of the rains between June and July, usually referred to as *Ọ̀wãrà Òjo* – heavy downpour, the weeding of the farm intensifies. These were the months of the most demanding farm work, as the vegetation was at its peak. After a brief dry season, occurring in August-September, the crop of the second harvest was ready as the *Arọ̀kúrò-Òjo* – latter rains approach. The rhythm of the seasons governed largely the conceptual image of individual farming spaces as well as that of the whole farm village

Agronomic practices such as intercropping, agroforestry, and types of soil influence the spatial images of the farm village. An intercropped field conjures a different image from a cultivated land of monoculture. For instance, Burton (1863, 62) observed on his approach to Abeokuta that "here…. the people are fond of planting together several (crops), especially beans, maize and manioc (cassava)". Also, agroforestry contributes to the mental comprehension of the physical layout. As aforementioned, trees served as cartographic labels on the farmland and the village. For example, there was retention on the farmlands trees such as *Opẹ, Bujẹ, Akòko* and *Epin* for these locational reasons. As Delany (1861, 32) noted "All through the Yoruba country the palm tree [*Opẹ*] is cultivated, being regularly trimmed and pruned, though never cut

down in clearing a farm, except when from age the tree has ceased to bear". Environmental cognition was one of the "vast, complex, and negotiated social uses of the forest" (Scott 1998, 13).

Types of soils might dictate positions of crops and method of tillage, which also contribute to the mental task of spatial comprehension of the micro-agricultural space. Again, the practice of soil care through natural regeneration determined the uses of space on individual farms and the whole farm village. For instance, Alvan Millson (1891, 584-585) gave an insight into organic fertiliser used by Yorùbá farmers in the 1890s, when he noted that:

> In the dry season …The whole surface of the ground among the grass is seen to be covered by serried ranks of cylindrical worm casts. These worms casts vary in height from a quarter of an inch to three inches, and exist in astonishing numbers. …. For scores of square miles they crowd the land, closely packed, upright, and burnt by the sun into rigid rolls of hardened clay. There they stand until the rains break them down into a fine powder, rich in plant food, and lending itself easily to the hoe of the farmer….This work goes on unceasingly; year after year…. Where the worms do not work, the Yoruba knows that it is useless to make his farm.

Social practices such as work rules, urban-rural migration and multifunctional purpose of the farm village inform the imagery of the agricultural workplace. Since the household was the basic economic unit, the estimated size of a household does influence the form of mental picture associated with their farm village. For example, the extent of obligatory labour (*Ộwệ*) and the reciprocal labour (*Ãró*) employed on the individual farms might determine the spatial extent of a farm (Atanda, 1980; Fadipe, 1939). The rhythm of migration also impacted the spatial comprehension of the farming landscape (Ojo, 1970). For example, the Rev. Bowen observed in 1851 that:

> To acquaint myself with the language, intellect, feelings, and every-day life of the natives, I used to visit them on their farms, ten or fifteen miles from town; and remain two or three days. In the spring of 1851, 1 went with Sam and Shumoi, the cook, to the most distant farms up the Ogun river, whence it is not far to the Yoruba line. …..Here we found one or two hundred men, women and children, in long open shanties, surrounded by goats and chickens. They lived in Abbeokuta, but were in the habit of *coming and going* as occasion required. (Bowen, 1857, 135-136, emphasis added)

These urban-rural migrations involved distances that were relatively similar in most towns. For instance, in Eastern Yorùbáland, D. J. May observed in 1858 that: "I left my quarters in Ilesha,

accompanied by a chief's messenger, and travelled north-westerly 4 ½ miles over a fair but rugged road to a farm village – numerous roads branching to farms indicating much cultivation in the Vicinity" (May, 1860, 219). On the other hand, in Western Yorùbáland, the same English traveller noticed "the next day's journey was to a farmstead, Obagba…a farm to Iwo, which… I found to be but about 5 miles distant" (*Ibid*, 213-214). Hence, the farm-villages serving Iwo and Ilesa were 6.4 to 8 kilometres (4 to 5 miles) away from the towns respectively. However, some farm villages are farther, between 16 and 12.8 kilometres (10 and 8 miles) from the town, as Thomas B. Freeman encountered in 1843 when travelling to Abeokuta (Tucker, 1855, 50-51).

In addition, the multifunctional purpose of the village beyond subsistence and commercial interest influenced the conceptual image of the farm village. Some farm villages served as guest-house to long-distance travellers. Here water and food provisions were available for the passing traveller "at exceedingly low prices" (Millson, 1891, 582). For example, the Afro-American traveller, Robert Campbell (1861, 97), during his journey with Dr Delany to Ilorin from Ogbomoso, sought "to find a place at which we could sojourn for the night, and fortunately found a small farm village about four miles further on". Similarly, Millson (1891, 582) observed that: "There is indeed a custom among the Yorùbás of the interior that the passing traveller may stop at any farm or field and cook sufficient food from the standing crops for one meal, but it is considered a very heinous offence for him to carry any away with him". Hence, diverse positioning including the rhythm of ecological systems, social practices but primarily individual agency were significant in giving socio-environmental context to cognitive representations of the indigenous farm village.

The communication of these spatial perceptions was through performance and verbalisation (Olatunji, 1982; Perkins, 2003). The transmission of these perceptual maps was usually by verbal communication (Gollmer, 1889, 199). Everyday living involves verbal descriptive geographies that communicate spatial relations of the physical environment and the farm village as a single spatial unit. The spatial discourse of the farm-village occurs on the farm, in the town and along routes to the town or the village. For example, the communication of this spatial discourse of the farm village was obvious in proverbs, folktale, songs and stories. Folktale was part of the "Why-stories since they answer most of the questions that agitate children's minds about themselves and

their environment" (Majasan 1969, 48). Stories and tales, often aimed at moral education, embed geographical knowledge that stimulates mental maps of farm villages.

This verbalisation also involves performance maps that transmitted the knowledge of the agricultural space using gestural and ephemeral maps (Edney, 2019; Olatunji, 1982). Oftentimes, these communication modes overlapped. The uses of performative and verbal media often become simultaneous. This usually occurs when farm-villages are landmarks in wayfinding and navigation around the urban–hinterland landscape. For example, Rev. Bowen in 1851 (1857, 136-137) observed that:

> Some months after this I visited, the frontier farms northwest of Abbeokuta. ….. Ogunbonna and others were going out the same time to look after their farms. …. After crossing the river, Ogunbonna began to point out the farms and forests to one of the party, who it seems was a stranger to that place. "That", said he, pointing to a forest, "belongs to such a one" This farm is such a one's and finally, "This is mine". Here we stopped.

Thus, the oral mapping of Ogunbona provided rich descriptive geography of the farm villages in northwest Egbaland. This combined gestural and verbalised mapping provides a 'lay of the land' for the stranger – a 'geographical knowledge constituting of cognitive elements of the farm villages'. The sources of these perceptual maps were direct or vicarious. From inquires, indirect knowledge of the world-pictures of the geographical space does emerge (Olwig, 2009). As Burton (1863, 67) noted at Abeokuta that "if you ask for the farms, you are told that they are distant five to twenty miles". These verbal maps, the spoken discourse of the farm village, later became part of the written discourses in the accounts of literate indigenes and European travellers. Therefore, the perceptual maps of the agricultural space constructed and communicated reflected a plural logic that gave the individual agency the paramount opportunities for decision-making and action-taking in everyday spatial behaviour.

5.3.2 *Mapping the Indigenous Agricultural Landscape: Urban-Hinterland Agrarian Practice in Nineteenth Century Ibadan*

The farm villages, as reflected in pre-colonial representations of the agrarian landscape, were evident in the agricultural economy, political identity and territoriality of Ibadan. I argue that the environmental cognition of the agrarian landscape of Ibadan citizens embeds collective agency, social organisation and territorial consciousness. The farm village was a visible, physical "object

at one spatial scale" but becoming "an attribute at another" (Down and Stea, 1973, 315). At a larger geographic scale, the agrarian notion of farm village became a way of framing or conceptualising the wider agricultural landscape. Notably, the basic features of the satellite farm village described in Section 5.3.1 are subject to variations. The ecological differences in different geographical areas of Yorùbáland led to these variations.

These variations were evident in the material practices of several Yorùbá sub-ethnic groups. For instance, farm village practices in the dry savanna in northern Yorùbáland had some dissimilarities from the same outlying farming practices in the moist forestland of the southern Yorùbás. Again, at a larger spatial scale, the farm village practice framed the cultural values on the mostly urbanised landscape. The practice of satellite farm villages that best reflects the urban-rural hinterland economic relations of the Yorùbá in the nineteenth century existed near the biggest towns. Examples include the towns of Abeokuta, Ijebu-Ode, Ilesa, Ondo, Oyo, Ilorin and Ibadan. Ibadan, situated between the two ecological zones, was the largest city in the pre-colonial period and had a highly developed practise of satellite farm-village culture. Ibadan was founded about the first decade of the nineteenth century (Akinyele, 1980[1911]; Awe, 1965).

The Ibadan agricultural landscape constituted several farm villages. In the outskirt of Ibadan, every major compound in the town, like in other Yorùbá towns (Akinyele, 1911; Goddard, 1965), had a farm-village(s). Owing to the impact of high population density, emerging opportunities for external trade and political-economic influence, there were modifications to the satellite village practice from the simple ancient lineage-based farm village practice. Hence, the satellite farm village in Ibadan territory became a village layout of several buildings, with surrounding farmlands of a separate field of crops employing between hundreds to thousands of workers. As Awe (1973, 69-70) observed:

> This . . . type of farm was colonised by a labour force made up of women, children and slaves. The average size of the farm is not known, but the fact that some *oko egan* could boast of as many as six hundred or more slaves indicates that each of these distant farms must have covered a fairly large area.

These farm villages were landmarks on the agricultural landscape. For instance, the satellite farm-villages were topographic descriptors. Together with other geographical features such as rocks, trees, stretch of jungles or savanna, they served as relative positioning in the descriptive geographies of the hinterland. These cultural and natural features had specific toponyms that

served as imaginary cartographic frames of reference. However, the toponyms of farm-villages were the foremost descriptors of the landscape. Hence, identifying the farm villages were by their toponyms or place names. The usual place name of farm villages in the Ibadan hinterland was the name of the founder of a compound or lineage. Therefore, several farm villages on the Ibadan agrarian landscape in the nineteenth century had the same names as that of the residential compound in the town. However, other types of place names identified farm villages. Example includes civil rank, military titles, events, animals, and the occupation of the founder of the village. Hence, these place names are distinguished landmarks at this larger spatial scale and were attributes of the landscape (Downs and Stea, 1973; Kitchin, 1994). Indeed, as landmarks, the farm village was a mental construct sewed upon the biophysical landscape.

Oko Ìbàdàn (Ibadan farms), was the collective cognitive representation of the agricultural landscape. This collective image of the farm villages reflected locational and attributes information. The comprehension of the locational knowledge of the agricultural landscape employed several concepts of direction and distance. As Scott (1998, 25) notes, "Non-state forms of measurement grew from the logic of local practice". Three ways spatially comprehended the direction of the satellite farm villages that constitute the outer agrarian landscape. First, there was direction from the town walls or gate. Hence, directional information regarding farm villages was encoded and recalled through association with the direction of the town walls. For example, the description of a farm-village or farm-villages involve differentiation has – along, near/close or far from the direction of Inalende or Iwo town gates. Secondly, there was the incorporation of the previous kind of relative direction in the broader, abstract concept of cardinal points: *Ariwa* (north), *Gũsù* (south), *Ìla-Õrún* (east), and *Ìwo-Õrún* (west) (CMS, 1913). Thirdly, a relative direction relied on the direction of neighbouring sub-ethnic groups. For instance, there was the description of a farm village as nearer the Egba frontier or Ijebu border. Although the use of cardinal points was well understood and used, the first and third cartographic lexicon permeated everyday descriptive geographies of the farming landscape.

There were two ways of employing the notion of distance; a relative measure of length and the reference to the number of day's journey. A relative measurement of distance was the notion of *Ìbusọ*, a term of the relative length based on distance between stopping places (CMS, 1913). However, this length was by no means the same for every farmer or traveller. The broader human scale of reference was the day's journey, usually meant for longer distances. Through these popular

indigenous measures, the distance of a satellite farm village constitutes an important element of the geographical imagery of the farming landscape. For example, as two or three *Ìbusọ* for nearer farm villages and two or three days' journey for farther farm villages.

The conceptual image of the agricultural landscape derived by Alvan Millson (1891) from indigenous informants reflected a multifunctional context of political-economic development. As Kitchin (1994, 2) observes cognitive maps "are in effect 'representations of objects and their association' involving generic and motivational information". The mental framing of the agricultural landscape revealed the functional and purposiveness of local spatial knowledge. This was evident in the agricultural economy, political identity and territorial state formation. The conceptual picture of the 163 villages constituting the agricultural landscape emerged from its function of urban food supply. As a military state Ibadan was often under a state of emergency, this made large-scale agricultural production for domestic survival in the farm villages crucial to state policy and the peoples' geographical imagination. For instance, Johnson (1921, 325) noted that "These extensive plantations not only support their huge [household] establishments but also supply the markets, so that a military state though Ibadan was, food was actually cheaper there than in many other towns".

Similarly, the conceptual picture of the agricultural landscape evokes from its function as a frame of identity to the citizenry. The place names of the 163 villages were a symbolic representation of Ibadan politics (Millson, 1891). For example, the mention of a farm village conjured not just an attribute of the larger rural landscape but also an identity of those persons associated with the household that owns the village. While it reveals a form of indigenous othering, it also emphasises the social agency of the basic organisation of the city – the household (Watson, 1999). A vast majority of the citizenry framed their sense of identity through their compound and its farm villages.

In addition, farm villages were landmarks that defined the territorial space of the Ibadan state. As specific farmlands used roads, trees, rocks as boundaries, the farm villages served as boundary landmarks on the cultural landscape at a larger spatial scale. For example, Hinderer in 1851, coming from Egbaland, sought to "reach some of the Ibadan farms before night-fall" (Tucker, 1855, 234). Thus, the 163 farm villages served as the visible mark of the frontier of Ibadan state. They were also landmarks in the mental construction of the physical landscape of Ibadan. For instance, an Ibadan saying states that *Lalupon ni ilú ti bẹrẹ* (It is from Lalupon that the Ibadan

territorial space commences). As Stone (1899, 144) in 1861 observed Lalupon to be "twenty miles distant…. This is a wayside village protected by a stockade and placed in the midst of a dense forest". Thus, Lalupon, one of these 163 villages, was an important landmark in the layers of territorial boundaries of the physical space. This revealed the farm-village as a landmark in the everyday cognitive maps and mapping. The agricultural landscape did not only function to provide livelihoods but also reflected the multiple layers of identity and territoriality. Therefore, the agricultural economy, political identity and territorial consciousness were amongst attributes that gave broader context to the cognitive map of the larger agricultural landscape.

The communication of the mental imagery of this larger agricultural landscape was a well-known practice. Although the mode of communication involved gestural and ephemeral maps, verbal communication was the principal semiotic mode of transferring this picture of space. Gestural maps were often part of verbal discourses of the wider agricultural landscape to show directions of specific farm villages. In addition, ephemeral maps in verbal discussions gave an impression of the local geographies of farm villages. Again, there were different forms of indigenous visualisations, involving material objects, used in describing the landscape. For instance, Rev. C.A. Gollmer (1889, 200) observes,

> African symbolic language consists of messages, which the natives in the Yoruba country, West Africa, in the absence of writing, and as a substitute for the same, send to one another in order to indicate and communicate their mind. This is effected by means of a variety of tangible objects, such as shells, feathers, pepper, corn, stone, coal, sticks, powder, shot, razor, etc., by which they convey their ideas.

Hence, farm villages, as attributes of the agricultural landscape through different forms of material visualisations could convey these indigenous spatialities. To demonstrate, 163 sticks could represent each farm village in discussions of the agrarian economy in the Ibadan council. The sources of this local spatial knowledge were both direct and vicarious. For instance, there was often an exchange of direct knowledge of the farming landscape amongst ordinary citizens, traders and chieftains. Similarly, there were communications of the farming landscape between the citizenry and foreigners. For example, Alvan Millson, the British colonial officer, apparently did not visit the 163 farm villages on the Ibadan agrarian landscape he reported (Millson, 1891, 583).

This was a second-hand acquisition of geographic information from indigenous informants. Hence, there was a reflection of collective agency and social organisation in everyday spatial behaviour in the cognitive maps of the larger agricultural landscape.

5.3.3 *Subaltern Cartography of an Indigenous Farm Village in Late Colonial Ibadan Hinterland*

Cultural contact with Europeans in Yorùbáland increased in the mid-nineteenth century but intensified in the early colonial period (Atanda, 1980). This cultural encounter did not immediately result in any extensive change to the traditional social system including the farm village practice. As Crowder (1966) noted in the early years of the colonial experience, "with the exception of the missionaries they [British administration] had neither deliberately nor unconsciously attempted to alter [the] native society". For example, in 1928, Mr R.F. Butler-Cole, the Acting Conservator of Forest observed near the newly declared Ola Hills Forest Reserve the springing up of small farm villages. He noted several farm villages including Iro farm village, where the Oniro, the village headman, "himself farms a large area, and has six men under him all farming to the north. Their farms are extensive and continuous [in spatial extent] from the boundary to the foot of the hill" (Butler-Cole, 1928). However, innovations and adaptations in the farm village practice became necessary after the Second World War (1939-1945), as Webster and Boahen (1980, 236) noted, "the war brought revolutionary changes to West Africa". By way of example, farm villages rapidly expanded in the immediate Ibadan hinterland (Akinola, 1963; Oyeleye, 2001).

Fig.5.22 was a mental map of a Yorùbá farmer at one of the several farm-villages on Ogbere hill in Ibadan hinterland in the mid-1950s. I contend that in moments of cultural encounter with the modern political state and capitalist modernity, the adaptive mechanisms of subaltern knowledge production are evident in their contestation and negotiation of meaning on the agricultural landscape. Fig.5.22 was one of several sketch maps made by a farmer in events relating to agrarian issues at Oke-Ogbere (currently the Iwo Road area of Ibadan). These agrarian issues reinforced the role of individual agency and social organisation as associated with cognitive maps of the farm village. Ogbere hill, a lightly forested elevation, was located on the northeastern part of Ibadan (See Fig. 4.10). The mapmaker, a Western-educated farmer, employed his drawing skill in the spatial comprehension of his farm village. As Kitchin (1994, 3) observes, "These knowledge structures develop with age and education, thus increasing the information held". Looking at Fig.5.22 the farm-village landscape on Ogbere hill reflected, the aforementioned, fundamental

conceptualisation of indigenous agricultural space, consisting of the village centre and the surrounding farmlands.

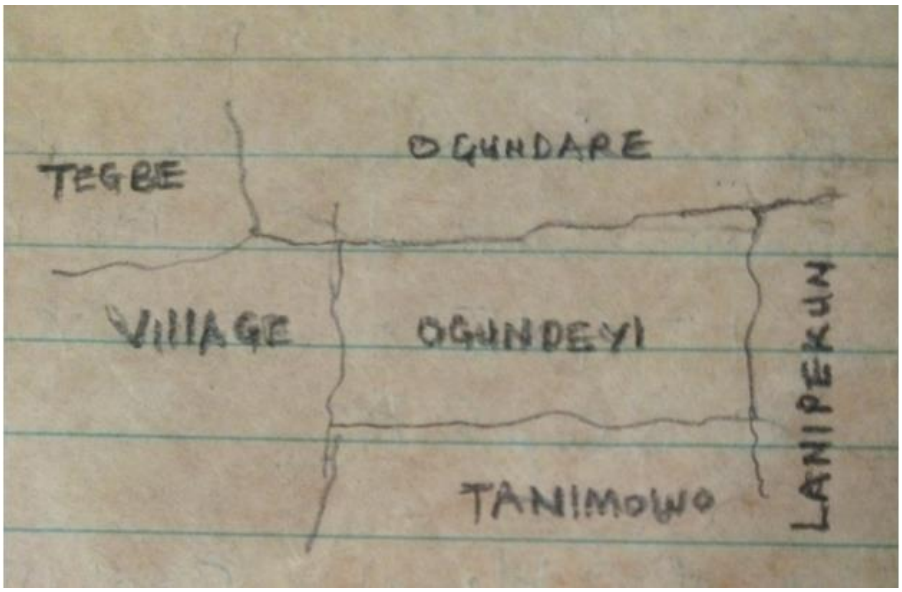


Fig.5.22 A Mental Sketch Map of a traditional farm-village layout on the Ogbere Hill, along Ogbere-Iwo Road, c. 1955 (Source: Redrawn from the Original Sketch and Description, Private Archive, Ibadan, 2020).

This simple sketch map was adapted as a visual image to aid the cognitive representation of the farm village. This visualisation of space externalised the spatial properties of form and pattern. The graphic construction consists of lines and lettering. The lines produced polygons that had rough rectangular shapes. The lettering indicates two types of labels, those ascribing identity to the rectangular shapes and another showing a village common ground. These graphic signs had the impression of a rough land-related cadastral. As an aid to spatial memory, this visualisation of space gave additional insight into discursive practices that occurred at the time. Although the mapmaker was literate, his audiences in several instances of the map use were illiterates. The graphic reflected customary land tenure regime, exemplified in a plan-view of the land subdivision of the farm village.

This visual representation of the Ogbere farm village reflected the concern with village organisation, farmland, cooperative agriculture, urbanisation and collective protest. The visualised geography of the farm village comprises the village centre, place names, farmland and boundaries. The centre of the farm village, west of the map, was the centre of the farming landscape. Place

names are topographic descriptors of this village landscape. For example, the place names indicated the owners of the farmlands. This use of different place names served as locational frames on the landscape. The village farmlands are contiguous to one another. This drew attention to the increasing changes in indigenous agriculture in the late colonial period. For example, there was a reduction in the spaces devoted to forest and fallow, unlike in the pre-colonial farm village. However, the impact of social organisation was still evident. For example, these place names referred to individuals who initially farmed these lands in the mid and late nineteenth century, but in the 1950s, it referred not directly to these individuals but their descendants – extended families. Thus, each block held kindred cultivated fields. As the Colonial Government noted in 1954 "The system of family or group ownership still existed generally throughout the [Western] Region" (CO, 1958a, 43).

The boundaries of the contiguous farmlands reflected the subdivisions of land. However, there were also further subdivisions within each farmland. The map audience understood these spatial demarcations without further visual inscription on the map. For instance, the mapmaker and his siblings, both male and female, farmed the farmland labelled Ogundeyi. This reveals the increasing challenge of population increase and land fragmentation. The Colonial Government noted in 1954, "in cocoa, palm oil and kola producing areas…there were now continual disputes and widespread fragmentation. It was clear that the traditional system of tenure would eventually be abandoned in these areas and also in the urban areas where the individual was becoming increasingly aware of the need for clear title to well-defined plots" (CO, 1958a, 43). Although there were some changes in the notion of individual agency on the agricultural landscape but not a complete abandonment of the social-spatial organisation. There was an indigenous notion of the individual property but not in the atomistic sense of modernist economic conception (Ayandele, 1974; Quintana et al, 1998). Indigenous agricultural spaces such as Fig.5.22 continue to pose challenges to modernising agriculture in the late colonial state.

The visualised agricultural space also reflected the subaltern practices of land subdivision and cropping system influenced by colonial and indigenous agricultural knowledge systems. These knowledge practices involved individual farming, cropping patterns and the art of heap-making. Although cultivated fields drew attention to the notion of individual property, yet indigenous social organisation influenced the visual mappings. For example, there are only references to the basic outlines of the farmlands ascribed to the extended families rather than a detailed coverage of

individual farms. Cropping patterns on these farms revealed a hybrid agronomic scheme influenced by colonial-oriented agriculture and indigenous food production practices. The agronomic practices involved crop farming and agroforestry on the cultivated fields. These cultivated fields focused on food crop production. In 1955, the farmer/mapmaker cultivated staple crops such as beans and yams on his farmland. Also, there was the production of cash crops. In 1956 on the farmland depicted as Ogundeyi in Fig.5.22 the farmer/mapmaker recorded 114 tree crops on his farm, of which cocoa trees were 80 per cent of all the trees (See Table 5.2). By contrast, on the same farmland identified in Fig.5.22 as Ogundeyi, a relative of the mapmaker/farmer had 216 trees on his farm, of which cocoa and palm trees were 73 per cent of all the trees. Farmers availed themselves of the monetary returns of the 'economic trees' to partake in the colonial economy. Nonetheless, food production was their prime concern.

An idea of the subaltern farm size that reflects indigenous forms of field measurement embedded the art of heap-making. In 1955, the mapmaker/farmer at the Ogbere hill farm-village observed that the heaps made by the farm-labourer for yam planting were "a little over 800 heaps" while he sought to have "up to 1000" heaps. Some agricultural experts in Western Nigeria observed, "a rough assessment can be made by converting the number of heaps at a rate of 3,000 heaps to 1 acre" (Takés, 1964, 442). Hence, the customary mental map of the farmer for his yam farm was roughly one-third of an acre.

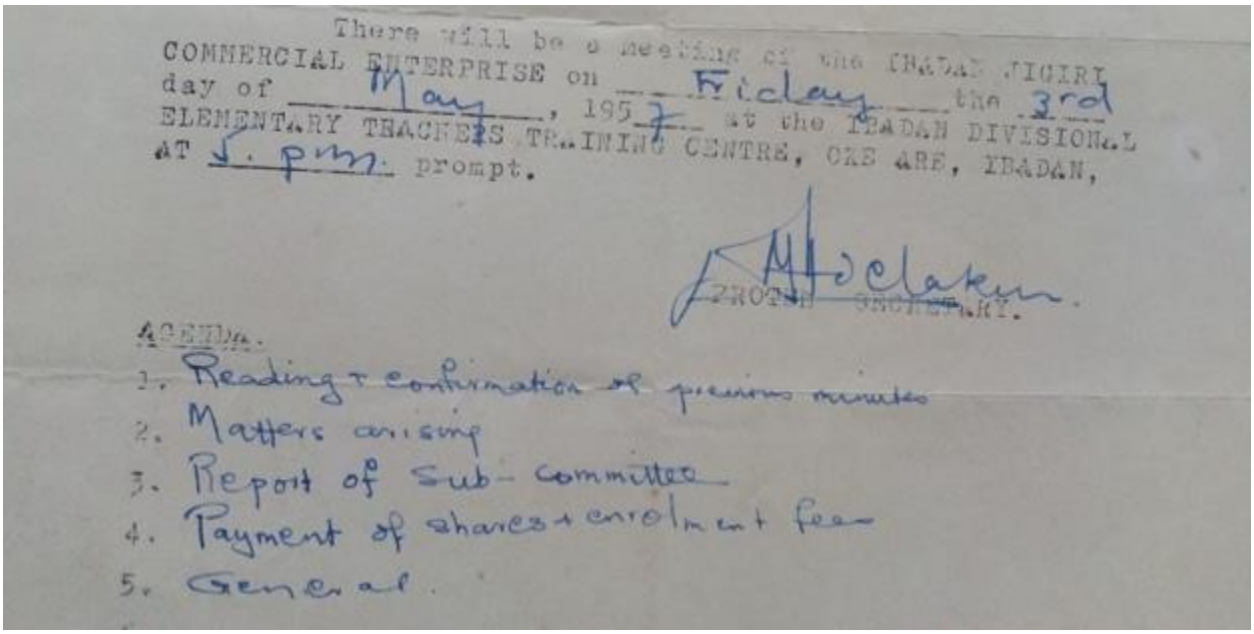
Regardless of interest in food and cash crops, as Table 5.2 reveals, agroforestry covered a substantial part of the farmland. As Scott (1998, 12) point out that "each species of tree …had its unique properties and uses" to the people's livelihood. Several trees useful for household socio-economic sustenance were an integral part of the cultivated fields. For instance, there was use of the *Amùja* trees for medicinal care. Likewise, there was the use of the *Akòko* tree for ceremonial and medicinal purposes as well as rope-making (RBG, 1891, 218). In addition, the *Bujẹ* tree produces a kind of colour for tattooing. The trees, as above-mentioned, also served the purpose of environmental care. Similar features would have characterised the four other farmland of the extended families that comprise the farm village. Therefore, the mental image of late colonial farmland was not a narrow frame of reference like that of colonial agricultural policies. This sketch maps aided the understanding of subaltern agricultural landscape of the late colonial period. Its production and use contested the totalizing colonial logic of economic plants as naturalised in state representations of the agricultural landscape (See Fig.1.1).

Table 5.2 Trees on a farmland, Ogbere hill farm-village, 1956

S/N	Yorùbá Name of Trees	English Names or Equivalent	Farmer 01 Number of Trees	Farmer 02 Number of Trees
1	Kòkó	Cocoa	92	150
2	Obì	Kola	4	6
3	Akòko	-	6	6
4	Ẹpin	-	3	4
5	Awẹ	-	3	4
6	Bujẹ	Shrub	4	-
7	Ayunrẹ	-	2	5
8	Ãka	-	-	1
9	Asa	-	-	4
10	Sapo	-	-	3
11	Irẹ	Rubber	-	5
12	Ito	Melon Specie	-	2
13	Opoto	Fig	-	1
14	Opẹ	Oil Palm	-	8
15	Ẽsìn	Nettle Specie	-	2
16	Amùja	-	-	1
17	Ìyeyè	Yellow Plum	-	11
18	Ọsàn	Orange	-	1
19	Oro	White Pear	-	2
Total			114	216

Source: Private Archive, Ibadan, 2020

In the immediate post-Second World War period, as I have mentioned in Chapter 4, there was a global food shortage (Steel, 1948). This shortage was partly a result of the commitment to war production during the early 1940s. Also, it was partly a consequence of colonial restructuring of the agricultural economy towards the exportation of cash crops and the neglect of food crop production (Webster and Boahen, 1980, 229). There were responses in the postwar period to this food crisis from subaltern groups through bottom-up initiatives. They founded several agricultural cooperatives devoted to food production. Some agricultural co-operatives sought to establish enclave-type farms. For example, in 1957, the Ibadan Jigiri Progressive Society (IJPS) sought to create a form of ‘farm settlement’ – the Ibadan Jigiri Commercial Enterprise (See Fig.5.23).


There will be a meeting of the IBADAN JIGIRI
COMMERCIAL ENTERPRISE on Friday the 3rd
day of May, 1957 at the IBADAN DIVISIONAL
ELEMENTARY TEACHERS TRAINING CENTRE, OKE ARE, IBADAN,
AT 5. p.m. prompt.

PROTEM SECRETARY.

AGENDA.
1. Reading & confirmation of previous minutes
2. Matters arising
3. Report of Sub-committee
4. Payment of shares & enrolment fee
5. General.

Fig.5.23 Circular Notice on the Jigiri Commercial Enterprise, 1957 (Source: Private Archive, 2020).

Other agricultural co-operatives involved collective improvement schemes in existing indigenous farm villages. For instance, there was the organisation of the Foodstuffs Producers and Marketing Association (FPMA) in July 1954 in Ibadan District. The FPMA sought to organise food production villages across different districts and provinces of the Western Region. On Ogbere hill, the mapmaker/farmer actively organised farm villages to join the FPMA. This agricultural cooperative sought 'giving more land to food production' to counter the problem of capitalist-oriented native agriculture. However, the FPMA was not only concerned with awakening age-long principles of agrarian production but was also interested in 'modernising' indigenous farming practices. New crops introduced, distributed, and experimented occurred in the farm villages through the assistance of the FPMA. For example, farmers experimented cultivating 'Brazilian Yam' for sales in the local Ibadan market.

There was rapid urbanisation in the late 1950s in the city of Ibadan as the capital of the Regional Government. Infrastructural development led to urban encroachment on farmlands. For example, the extension of the telegraph line along the Ibadan-Iwo road by the Post and Telegraph Department led to land acquisition. This public infrastructure affected some farmlands in several farm villages on Ogbere hill. There were prolonged delays to farmers' requests for compensation for their losses of trees destroyed. Hence, this led to a subtle protest in 1958 by twenty-two farmers,

including four women, concerning government negligence. Although the expanding city was gradually obliterating indigenous farm villages in its immediate vicinity, there were still concerns for food production amongst farmers on Ogbere hill farm villages. Consequently, there was the relocation of farm villages farther from the city's outskirts. Some of the farmers on Ogbere hill shifted their farming activities towards remoter parts of the Northeastern Ibadan hinterland.

According to Lefebvre (1991), everyday life is the very heart of social practice and the very source of any form of social reasoning. Changing land tenure regime, food crisis and urbanisation were some reasons in late colonial Ibadan that required the spatial representations of the farm village landscape through verbal and visual communication. As Cordwell (1983, 56) observed in the late colonial period that "nothing was adapted that could not be used in an old pattern, but with greater efficiency or meaning. The Yoruba yearn for… achievement is not earned without dignity, nor is change accepted without careful contemplation". These sketch maps, accompanied by several written description of the farmlands, emerged during these overlapping events at Ogbere hill. The adaptation of visualising the geographic image of this farm village aided verbal communication in rising cases of land disputes, cooperative activities, local agrarian activism and land encroachment. Different perceptions of the landscape emerged in each of these events dictating the selection, organisation and representation of space.

During these processes of adapting to challenges of colonial modernity, the farmer-mapmaker drew attention to the adaptive skills of subaltern knowledges to alternative ways of improving farm plans and farming operations at the farm villages as part of the ongoing process of *Olajú*. Some of these agrarian activities required detailed examination of the agricultural spaces which oral practices could not provide the needed tangibility. Fig.5.22 belongs to this genre of processual maps that made concrete the hidden spaces of subaltern agriculture in late colonial period. Therefore, the visual and discursive discourses communicated the adaptive mechanisms of subaltern knowledge production to cultural encounters with late colonial capitalist modernity.

5.3.4 *Araromi Community Farm Settlement Scheme, Ado-Awaye: Representational Strategies in the Upper-Ogun Area in Post-Neoliberal Era*

In Nigeria, the socio-economic conditions of the late colonial period do reflect similar features in the post-neoliberal era. There was an economic crisis in the late 1940s manifested in food shortages (Crowder, 1966, 275; Steel, 1948, 29). However, there was the popularised notion of self-help by

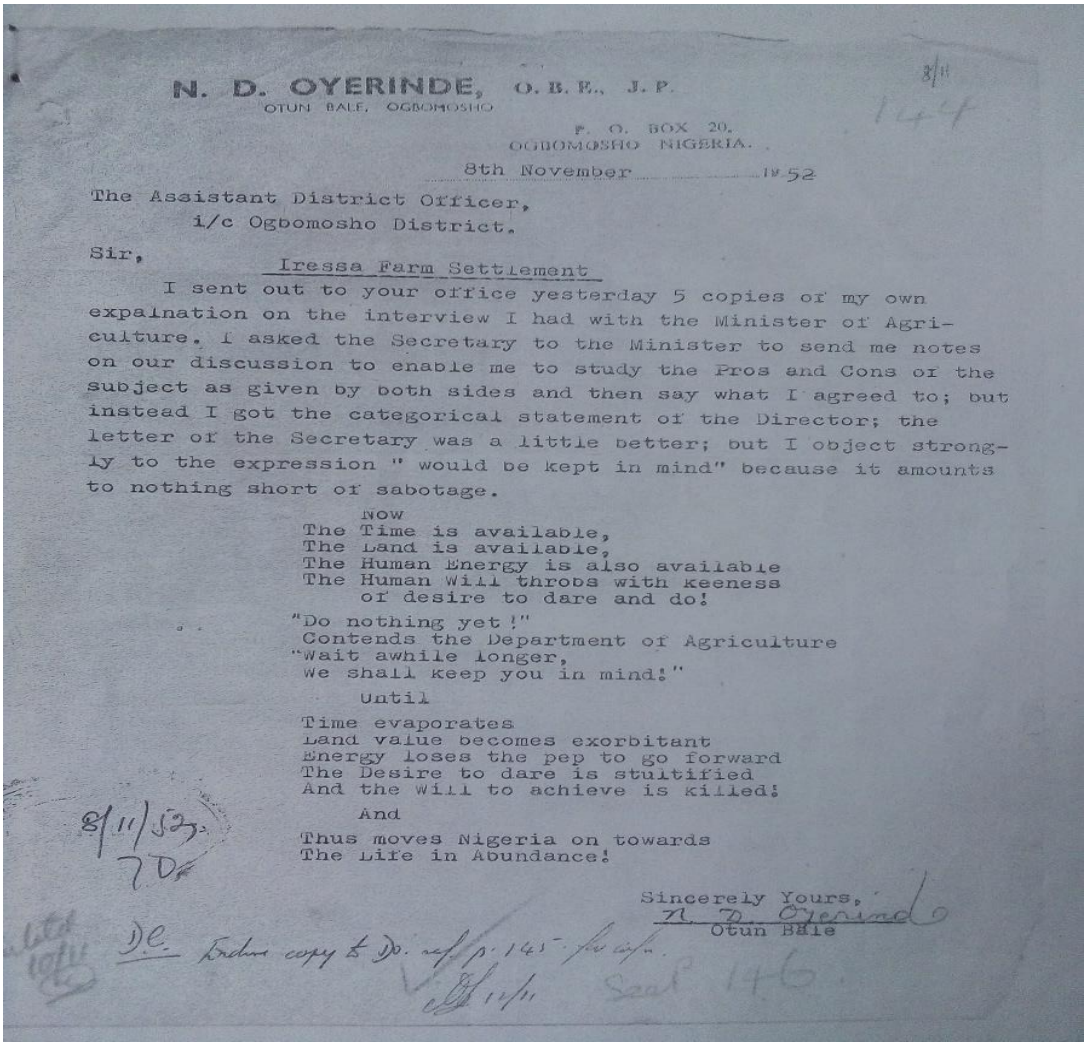
the colonial state (WNG, 1951), which the colonial subject responded to with innovations and adaptions to cultural practices, including the farm village practice. In the post-neoliberal era, economic stagnation in Nigeria, which intensified after 2007, has meant rethinking development from below (Potter et al, 2012, 69; Lewis, 2006, 85; Anugwom, 2020). Consequently, the state-sanctioned neoliberal idea of shifting socio-economic responsibility to individuals meant a renewed look at re-interpreting material development through collective effort (Harvey, 2005a, 76; Williams, 2021). Therefore, the willful neglect of state-owned farm settlement schemes has prompted the need for rethinking and re-interpreting traditional outlying agricultural production through the lens of alternative modernity (Ashcroft, 2009). One manifestation of this alternative agrarian modernity was the emergence of the CFS.

Adaptive mechanisms operating in the late colonial period are still evident in the landscape representational strategies of social struggles in post-neoliberal period. At Ado-Awaye, the monarch and the Ado-Awaye Community Development Association (CDA) responded to state-sanctioned neoliberal agricultural imaginary through media discourse that revealed a subtle subaltern resistance. I argue that there are discursive imaginings of alternative agricultural space deployed in subaltern geographies to contest neoliberal logic of agriculture but an absence of graphic visualisation of space still creates a sense of vagueness concerning these alternative visions. The idea of the Araromi Community Farm Settlement Scheme was the workings of the monarch of the town and the Ado-Awaye CDA (Akinselure, 2018). Ado-Awaye is a town in the Oke-Ogun region, northwest of Ibadan greater hinterland. This locally defined development, exemplified in the Community Farm Settlement Scheme, emerged in the cultural encounter with state-sanctioned neoliberal development (Loomba, 2005, 64; Lawson, 2007; Williams, 2021). The community deployed media representation to give publicity to their narrative. This publicity was a subaltern strategy to resist and rework the state government's Zero-Tolerance-for-Idle Land Policy. So, how did individual agency and social organisation reflect in the adaptive mechanisms of subalterns' reinterpretation of the agricultural settlement scheme?

There was a cognitive representation of the spatial imagination of the Ado-Awaye Community Farm Settlement Scheme. The geographic image of the settlement scheme was 5000 hectares of contiguous land (*AgroNigeria*, 2018). The locational character of the settlement scheme was rooted in the physical landscape of Ado-Awaye and the environs of the Oke-Ogun area of Oyo State. For instance, the location of the potential land was between the villages and

towns of Ado-Awaye, Aagba, Ayide, Osoogun, Ogbolasa, Sagbo Ile, Akinwumi, and Wasinmi. The mental image of a spatial form became verbal symbolism, transmitted through media discourse. Hence, the community-based initiative appropriates the notion of compact farmland as a key element of this farm settlement scheme. Again, "the land will be divided into smaller units of five to ten hectares" (Akinselure, 2018). The imagery of spatial arrangement drew attention to a collaborative use of space. This conceptual image projected the assimilation of modernist logic of rational farming sizes. Similarly, there were "measures to curtail cattle invasion include erecting…..signposts on the farm estates" (*Ibid*, 2018). This was a form of spatial practice of enclosure. In addition, there were discussions on specific spaces for potential farmers on the settlement scheme. For instance, "The farm estate, which will be mechanised, will major on cassava and maize production, with youths and women to be given priority" (*Ibid*, 2018). This agrarian imagination reflected a hybridised practice of food and cash crop production.

This agrarian spatial imaginary emerged within the context of alternative logic of the agricultural settlement scheme, calls for revamping the settlement scheme and subaltern response to the neoliberal imaginary. An alternative logic of the agricultural settlement scheme emerged during the late colonial period. For example, Nathaniel Oyerinde, an American trained schoolmaster, influenced by the ideas of Booker T. Washington, suggested the creation of a large-scale agricultural scheme by the Ogbomoso Native Administration in the 1940s. In March 1948, Oyerinde sent a *Memorandum on Economic Development of Ogbomoso*, to the colonial administration regarding his agro-economic imaginary, described as 'my alternative to the plantation system'. This agricultural imaginary was a spatial construct of 4 miles squares, organised as a form of large-scale agricultural settlement. Although this Oyerinde's spatial imaginary of 16 square miles or 10, 240 acres (4,144.07 hectares) seems unrealistic at that time, considering colonial and indigenous viewpoints on land tenure and agriculture. Nonetheless, the idea of an agricultural settlement scheme had emerged amongst the people reflecting their spatial economic reasoning. Indeed, the establishment and experiment of the Ogbomoso N.A. Farm School in 1951 and the Iressa Farm Settlement in the early 1950s were partly a response to Oyerinde's consistent criticism of the colonial government neglect of 'modernising' agriculture (See Fig.5.24).



N. D. OYERINDE, O.B.E., J.P.
OTUN BALE, OGBOMOSHO

P. O. BOX 20,
OGBOMOSHO NIGERIA.

8th November 1952

The Assistant District Officer,
i/c Ogbomosho District.

Sir,

Iressa Farm Settlement

I sent out to your office yesterday 5 copies of my own expalnation on the interview I had with the Minister of Agriculture. I asked the Secretary to the Minister to send me notes on our discussion to enable me to study the Pros and Cons of the subject as given by both sides and then say what I agreed to; but instead I got the categorical statement of the Director; the letter of the Secretary was a little better; but I object strongly to the expression " would be kept in mind" because it amounts to nothing short of sabotage.

Now
The Time is available,
The Land is available,
The Human Energy is also available
The Human Will throbs with keeness
of desire to dare and do!

"Do nothing yet!"
Contends the Department of Agriculture
"Wait awhile longer,
We shall keep you in mind!"

Until

Time evaporates
Land value becomes exorbitant
Energy loses the pep to go forward
The Desire to dare is stultified
And the Will to achieve is killed!

And

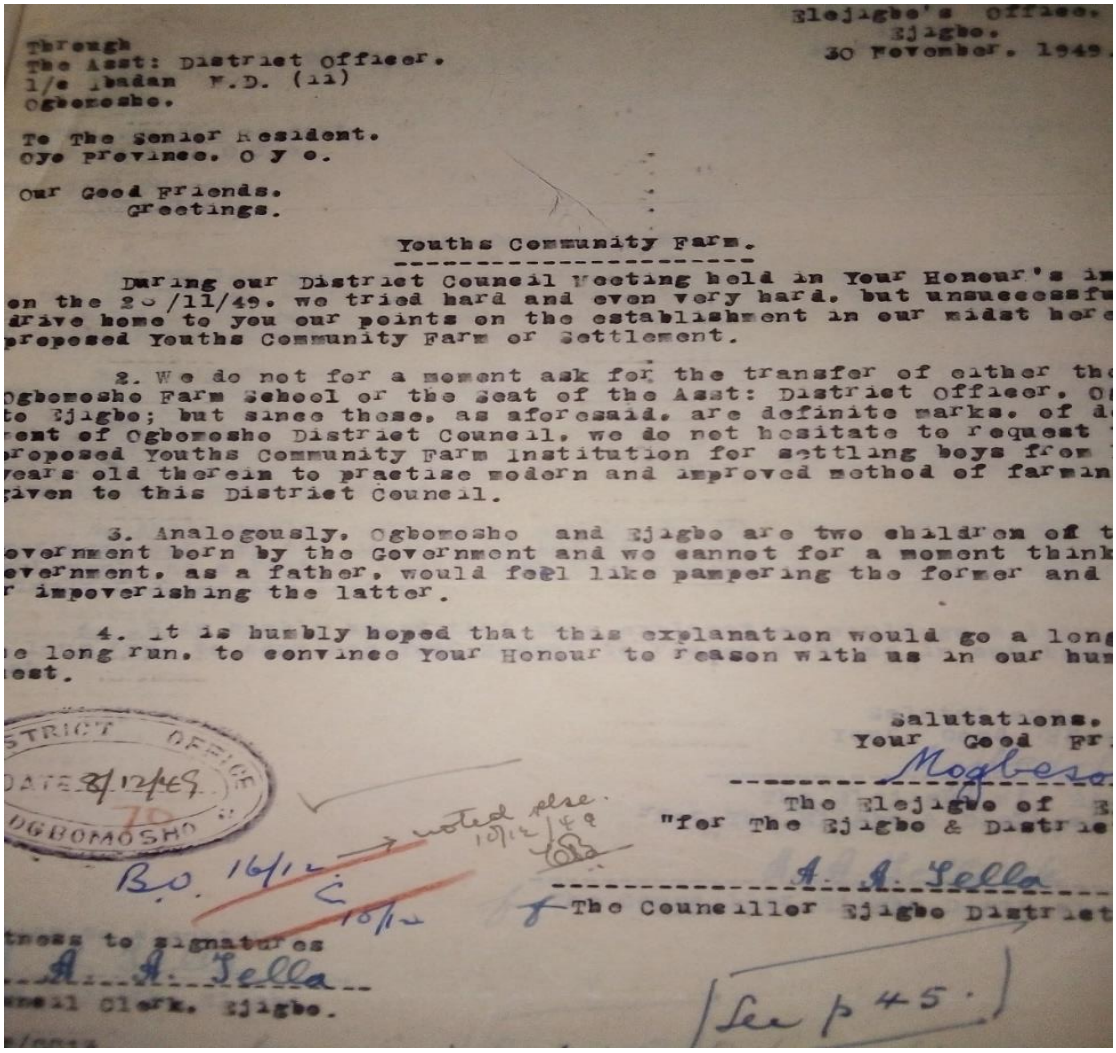
Thus moves Nigeria on towards
The Life in Abundance!

Sincerely Yours,
N. D. Oyerinde
Otun Bale

Fig.5.24 N.D. Oyerinde's Letter on the Iressa Farm Settlement, 1952 (Source: National Archives, Ibadan, 2020)

This idea of an agricultural settlement scheme spread amongst several Western-educated Yorùbá around Oyo Province. For example, the Ejigbo sub-district N.A.in the late 1940s adopted the idea of Youth Community Farm Settlement (See Fig.5.25). However, the better-organised agricultural settlement scheme established by the colonial and early-post colonial governments, I suggest, shelved that notion of a Youth Community Farm Settlement at Ejigbo. Again, many traditional farmers reported in the mid-1970s during the Badeku Rural Project that they preferred a 'loose-type' group or collective farming "rather than the joint tenancy co-operative which is based on the Israeli moshav" (Osuntogun, 1980, 145). In addition, since the beginnings of the

2000s, there have re-emerged in Ibadan hinterland ideas of privately owned or community-driven farm settlement schemes.



Elejigbo's Offices.
Ejigbo.
30 November. 1949.

Through
The Asst: District Officer.
I/c Ibadan N.D. (ii)
Ogbomosho.

To The Senior Resident.
Oyo Province. O y o.

Our Good Friends.
Greetings.

Youths Community Farm.

During our District Council Meeting held in Your Honour's in on the 28/11/49. we tried hard and even very hard, but unsuccessfu drive home to you our points on the establishment in our midst here proposed Youths Community Farm or Settlement.

2. We do not for a moment ask for the transfer of either the Ogbomosho Farm School or the Seat of the Asst: District Officer, O to Ejigbo; but since these, as aforesaid, are definite marks, of d rent of Ogbomosho District Council, we do not hesitate to request proposed Youths Community Farm Institution for settling boys from years old therein to practise modern and improved method of farmin given to this District Council.

3. Analogously, Ogbomosho and Ejigbo are two children of t overnment born by the Government and we cannot for a moment think overnment, as a father, would feel like pampering the former and r impoverishing the latter.

4. It is humbly hoped that this explanation would go a long e long run, to convince Your Honour to reason with us in our hum est.

Salutations.
Your Good Fr
Mogbeso
The Elejigbe of E
"for The Ejigbo & District

A. A. Tella
The Councillor Ejigbo District

DISTRICT OFFICE
DATE 8/12/49
OGBOMOSHO

B.O. 16/12 noted else. 10/12

10/12

ness to signatures
A. A. Tella
neil Clerk. Ejigbo.

See p 45.

Fig.5.25 The Letter of the Ejigbo District Council on the proposed Youth Community Farm Settlement addressed to the Oyo Provincial Resident Commissioner, 1949. (Source: National Archives, Ibadan, 2020)

Since the commencement of civil rule in 1999, there have been increasing calls for the revamping of state-owned agricultural settlement schemes. For instance, in 2011, farm settlers at Ago-Owu Farm Settlement in Osun State appealed to the state government to provide road, health and storage facilities (Olukoya et al, 2011). Indeed, in 2016, there was a suggestion from Professor Poju Akinyanju in the *Vanguard* that " The Federal Government should establish one farm settlement per state; each State 3 farm settlements, one in each senatorial district; and each Local

Government (with some grant aid from the Federal Government) one settlement each. This will give us 918 farm settlements" (Akinyanju, 2016). Similarly, another commentator on public affairs, opined that "the re-introduction of the farm settlement scheme is strongly recommended, as it will not only provide young people who are interested in farming the opportunity to obtain land it will facilitate massive food production for local consumption and export, create employment" (Bamidele, 2016). The varied challenges of the state settlement scheme, I suggest, have led to the resurgence of re-envisioning the settlement scheme as a community-based initiative.

The emergence of these community-based initiatives of CFS was also a response to the neoliberal imaginary seeking land for private investors in the rural hinterlands. It was an effective strategy of contesting the state government's rhetoric of land utilisation policy and its representations of normal agriculture as a neoliberal modernist vision as I have shown. Rather than submit to the intricacies of the state land policy and its propaganda of attracting FDI, some Community Development Associations created an imaginary world of a CFS (Hynes, 2018). For example, the Ado-Awaye CDA wanted private investors to direct their funds into their locally framed CFS project. This agricultural investment aimed particularly production, processing and buying of cassava as an improvement of traditional agrarian practice. The subaltern strategy exploited the tradition of farm village practice to secure a framework of the CFS for private investors to partake rather than control. For instance, the geographical framing of imaginary CFS hinged upon the surrounding farm villages of Ado-Awaye. As an alternative to privatising their lands, they wanted private investors to provide funding, and the state to operate farm mechanisation support for the CFS project. The vision of the organisers of the Araromi Community Farm Settlement Scheme at Ado-Awaye seems to be a Commons-Public Partnership (Bollier and Helfrich, 2019).

Hence, the people were not ready to lease their land to private investors, unlike what the state commissioner said in 2017. The strategy of resistance simply adapted the CFS as an alternative to privatising their land. Instead of paying attention to the state-sanctioned rhetoric of efficient agricultural productivity and effective use of land resources, the CDA had an idea of welcoming investors but reducing the supposed private investors to tenants under the subjective gaze of community regulations within the framework of the CFS. Instead of acknowledging that traditional agriculture has been outmoded, the proposed CFS raised a strategy of engrafting the notion of

compact farmland and sizable farming unit unto the indigenous agronomic practices. Besides, it shared the vision of commercial cassava production of the neoliberal agricultural imaginary. The notion of tradition, adaption and identity reechoed in the reworking of the idea of a farm settlement scheme. Therefore, dynamism and innovation, key qualities of modernity (Robinson, 2006); resonate in this resurgent vision of a community-driven farm settlement scheme.

The CDA employed media and spoken discourses to communicate this spatio-economic imaginary. The media discourse used verbal and visual devices to represent and communicate this agricultural imaginary. For example, the *Nigeria Tribune* revealed the conceptual image of the spatial imaginary as aforementioned as a compact farmland with demarcated farming units. Titled "Ado-Awaye: Reviving Farm Settlements with Community Effort", the media report built a picture of decline and despair concerning the state-owned farm settlement scheme (Akinselure, 2018). Then it considered the above-mentioned suggestion of establishing new state farm settlements posing the question, "But wouldn't there be a recurrence of the same misfortune that befell farm settlements set up in the 50s and 70s should government establish new settlements?" (*Ibid*, 2018)

Thereafter, the reportage turned to the "paradigm shift from government ownership to communities setting up farm settlements". The framing of this narrative of a community-based alternative was by several photographic imageries of the people and the locality. For example, Fig.5.26 shows the town of Ado-Awaye, illustrating the news report of the *Nigerian Tribune* (Akinselure, 2018). This photographic image was a bird-eye view of the town from the Ado Inselberg. This photograph, which drew attention to the aspirational geography of the area envisioned through the CFS, emphasised the community-based focus. As an illustration in a CFS discourse, it was a photographic indication of place-based knowledge in the planning of local resources. Other photographic imagery seems to affirm the geographical imagination of potential farmland.

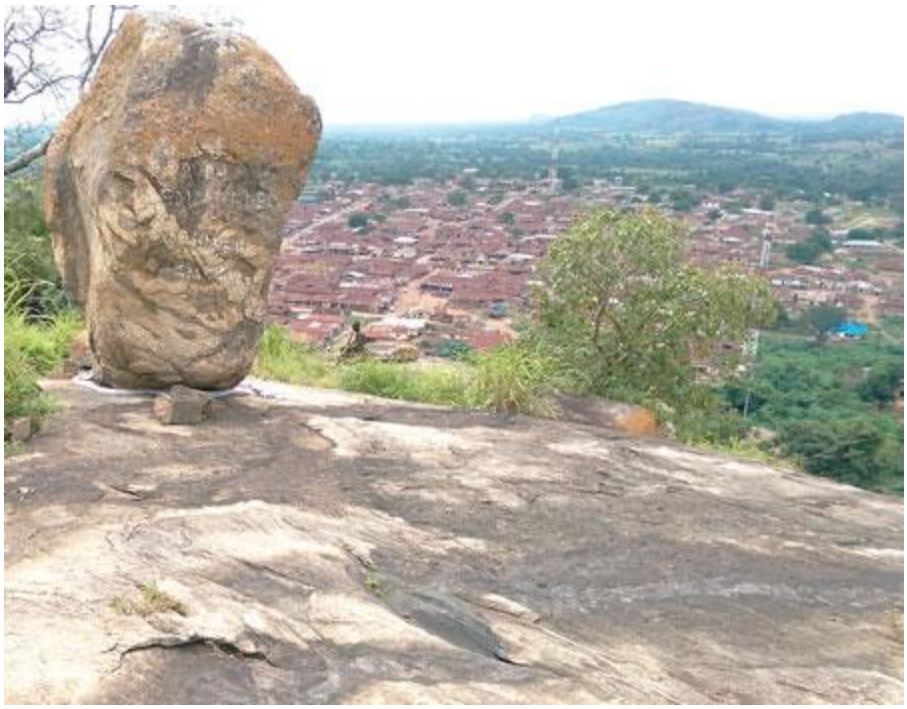


Fig.5.26 Bird-Eye View of Ado-Awaye from the Ado Mountain (Source: Akinselure, 2018)

Similarly, *AgroNigeria*, an Online News Platform, reported the news of the CFS titled "Oba Folakanmi inaugurates Araromi Farm Settlement in Ado-Awaye" (*AgroNigeria,* 5 January 2018). Like in the previous newspaper, the online platform drew attention to the conceptual image of compact farmland and demarcated farm units. Again, the framing of this narrative of a community-based alternative was with photographs. For example, there were photographs of the monarch, baales and chiefs of Araromi Local Council Development Authority (*Ibid,* 2018). The scheme started as the monarch's idea but eventually included the entire local council area. Likewise, the narrative drew attention to other social actors at the inauguration of the CFS. For instance, at the event were the special guest, businessmen, and government functionaries (Akinselure, 2018). Having lamented the decline of the state scheme, the potential reoccurrence of failure if new government settlements were established, the narrative presented a community-based initiative filled with members of the governing class.

The image of the CFS represented by the media discourse embeds spatial reasoning of a particular subaltern class. The developmental visions of the traditional elite often adapt but mirror the statist framework. This visions resonate with Myers' (1991, xii) contention that "[local] elites manipulate and resist law [or state policies] to advance their socioeconomic positions".

Nonetheless, there were genuine concerns by the monarch and citizens of Ado-Awaye to further modernise agriculture through the CFS imagination. This aspirational geography of a community-owned farm settlement scheme at Ado-Awaye sought wider coverage across Oyo State and Yorùbáland through media representation. The visual communication that aided this media representation of the Ado-Awaye CFS was essentially about the people rather than giving tangible knowledge of the agricultural space. Nonetheless, the combined use of visual and verbal texts, I suggest, provided a form of the imagined cartography of the CFS.

There was also the communication of this CFS agrarian imaginary through spoken discourses. However, the conceptual images of spatial thought, verbalised by the Ado-Awaye Community Development Association (CDA), revolved around similar issues of land and politics. For instance, the Chairman of the CDA reiterated that the major initiator of the CFS programme was the town's monarch, the Alado of Ado Awaye (Interview, November 2020). The initiation of the imaginary, interview data suggest resulted from the local politics of land acquisition with state officials from Ibadan and local chieftains. The agency of the monarch was crucial in this spatial thought to retain the support of the state, facilitate local development but confine the neoliberal search for potential land. A self-help project, the monarch still sought the collaboration of the different levels of government.

In addition, the verbal account of the Chairman's conceptual image of the CFS was slightly different from the media representation. First, Akinwunmi village was the proposed location of the CFS rather than the contiguous land of the aforementioned villages. However, this could be the perception of the CDA Chairman. Second, the potential land for the scheme was 1000 acreage (400 hectares). Besides, he highlighted the challenges to this imaginary. For instance, the fundamental constraint was "the lack of mechanisation for land preparation" (Interview, November 2020). Why was mechanisation crucial in his conceptualisation of the CFS imagination? Land clearance through mechanisation was essential to the provision of a large-scale farmland, which reiterates the image of the nearby Ipapo Government Farm Settlement (See Table 5.1). Hence, there was constant reference by another participant for government assistance to secure these machines for land clearance. For farm operations, they argued, interested farmers could rely on rentage of other agricultural machines in the locality (See Fig.5.27). There was no mention of farm sizes as an issue of spatial concern. Rather than give further details on the spatial imaginary of the proposed scheme, he waded into the politics of representation of Oyo State.



Fig.5.27 Agricultural Tractor at Ado-Awaye Town (Source: Author, 2020)

Reflecting on the inability to implement the project as imagined, he observed, “Government assistance for agriculture is a function of the political influence of an area and people in the state [legislative] assembly or government” (Interview, November 2020). He contends that the selection of Eruwa as the second site for the PPDP Farm Estate pilot scheme was because the current Speaker of the State assembly came from the Ibarapa zone. Oke-Ogun area, with the Iseyin-Ipapo farm settlement, ought to be the preferred zone. He remarked, “Oke-Ogun, with eleven LGAs, is the main agricultural base of Oyo State” (Interview, November 2020). His mental image of the state agricultural landscape was very different from that acclaimed at Ibadan, the capital of Oyo State. Although verbalisation of this subaltern imaginary evoked a perceptual mapping, the spatial forms of the CFS remain unclear.

This publicised narrative of Ado-Awaye CFS resuscitates the attention to an alternative logic of agricultural settlement scheme amongst the citizenry. Although this imaginary space initiates rethinking the idea of a settlement scheme, it remains a vague concept to many concerned citizenries. Indeed, the mental images of this deeply thought idea, pictured through verbal communication, makes several notions of the CFS elusive. The verbalisation of the imagined landscape continues to be a powerful means of spatial constructs amongst the rural populace. However, the publicity of these CFS schemes would wane, as media representation cannot sustain a consistent image within the written discourse only. As I have shown in Section 5.3.2, the

employment of sketch maps in the organising of agricultural cooperative and land acquisition protests gave tangibility to the spatial thinking of the subaltern.

Therefore, I argue that one of the communication challenges of this subaltern strategy of the CFS in the agricultural politics of knowledge was the lack of visualisation. The orality of agrarian imagination cannot effectively stand the all-encompassing visualising practice of state-backed neoliberal agricultural imaginary. Unlike the verbal representations of space, Mark et al, (1999, 756) observes, "geographical information acquired from pictorial input appears to be retained longer than similar information obtained from text". Aspirational geographies of the CFS need to engage the power of visualisation to bring some clarity to the idea and assist in exploring further the merits of such a locally based initiative. Indeed, can these verbalised geographies contend with the subnational state's machinery of visualisation in a socially visible world of aspirations?

5.4. Conclusion: Political Economic Maps and the Spatial Representations of a Hybridised Landscape

In this chapter, I contend that the multiple representations of the agricultural landscape have been reproducing the different logics of capitalist vision and subaltern imaginaries. This reproduction of agricultural landscapes of the same physical space reveals a social contest in the cultural economic encounter between the two logics. There are two key arguments in this contention. First, there has been a consistent production and reproduction of the agricultural landscape representation of state-sanctioned capitalist modernity. The agricultural settlement scheme exemplifies this cartographic visualisation of the agricultural landscape. Maps used in the disciplinary knowledge of social and natural sciences aided the disciplinary power of the state in the spatial ordering of the agricultural landscape. In addition, visual discourses of social practices, such as the state educational agenda, unconsciously embedded and contributed to the meaning and shared purpose of an ordered agricultural landscape. Likewise, there has been an active construction of popular consent for neoliberal agricultural imaginary utilising state promotional maps. Consequently, cartographic technologies have been a key medium amongst modernist visual representational practices. The visualisation of the settlement scheme was a fundamental part of the legacy of projecting a normative agricultural landscape.

Second, the discursive configuration of the subaltern agricultural landscape had a structuring effect different from the modernist framing of the same physical space. The perceptual framing of

an indigenous farming landscape accommodated and revealed the differences of individual agency. In addition, the cognitive mapping of an indigenous agrarian landscape embeds the collective agency of social actors. Again, the adaptive character of subaltern agricultural geographies emerged in the cultural economic encounter with modernist economic ideologies. These are evident in the combinations of non-tangible and material forms of agrarian landscape representations in the civic engagements with economic innovations and the modern political state. Furthermore, these adaptions of local spatial knowledge are evident in the resurgence of self-defined development exemplified in the CFS. Therefore, local spatial knowledge has consistently adapted in moments of cultural encounter with modernist rationality to re-imagine alternative visions of the landscape.

In framing my exploration of the historical and cultural economic landscape, I have engaged literatures in cartography and postcoloniality to show the use of visualisations and verbalisations in the structuring of the agricultural landscape. In this chapter, I have examined cartographic representations of the landscape, focusing on the state agricultural settlement scheme as a veil of political-economic power. This aligns with the observation of Scott (1998, 3) about the alliance of cartographic representation and state power which "enable much of the reality they depicted to be remade". Also, I have engaged the deployment of small-scale state maps in the active envisioning of neoliberal agricultural imaginary. These visual statements have ulterior motives as it deploys propaganda in the conception of good governance (Roelofs, 2016). This contributes to what Blacksell (2006, 33) notes as "a great power to mislead, empowering those who make them by very effectively creating a preconceived desired image in the minds of the map users". Consequently, this chapter adds to literatures in landscape studies and sociocultural cartography.

In addition, I have engaged the Othered legacy of the topographic identity of the rural landscape in this study. Hence, I have drawn attention to the contrasting visual and discursive imagining of space by modernist and agrarian representational practices. I hope to add to critical postcolonial geographies of indigeneity by the focus on indigenous and subaltern representations. In so doing, I add to the empirical and theoretical observations of Scott (1998, 27, original emphasis) on "types of customary maps [that] would construct the landscape… [as] decidedly *local, interested, contextual, and historically specific*". Again, my examination of the adaptive mechanisms of local spatial knowledge in moments of cultural economic encounter drew attention to the cultural hybridity of subaltern agrarian representations. This aligns with the

contention of Pollard et al (2009, 138) of "recognising the multiplicity of worlds that…..include indigenous forms of knowledge and the ordinary economies of everyday life". Therefore, this chapter also adds to postcolonial economic geographies.

CHAPTER 6 AGRICULTURAL LANDSCAPE IN NORTHEASTERN IBADAN RURAL HINTERLAND

6.1 Introduction

There are interactions of these multiple landscape representations in Northeastern Ibadan hinterland. I argue that when these different logics interact in local geographies, subaltern classes contest these modernist rationalities of state-sanctioned neoliberal development through verbalised imaginaries. These responses of subaltern groups to neoliberal agricultural imaginary are evident in counter-narratives of state-space and alternative narratives of hybridised forms of settlement schemes (Fabricant, 2012; Williams, 2021). The concepts of landscape and rural locality offer a meaningful space for uncovering the challenges and responses to the statist developmental vision through materiality, imagination, and practice (Woods, 2011; Wylie, 2007). Hence, the notion of local gaze explores subaltern knowledges of local geographies of development concerning statist cartographic visions.

The second section in this chapter explored the instrumental knowledge of the post-colonial state of Northeastern Ibadan hinterland in the context of everyday geographies of development. On one hand, the reproduced state authoritative landscapes provided anti-political economic imaginations of these local geographies exploited in neoliberal narratives (Walters, 2010). On the other hand, social developmental imaginaries entrenched in material cartography continued to sustain the early post-independence notion of social welfarist development (Ayoade, 1985; Woods, 2011). In the third section, I examined the subaltern contest of the rational structuring of the landscape with counter-narratives and alternative narratives (Ott and Aoki, 2004). These counter-narratives of neoliberal agricultural imaginary offered the spatial knowledge of realities of state-space. Besides, the impact of the legacies of modernist settlement schemes and local spatial knowledge is the emerging CFS aspirations. These contests and negotiations of neoliberal imaginaries used cognitive representations to imagine and reimagine the agricultural landscape (Kitchin, 1994). Nonetheless, verbalisation of space might not be sufficient in contesting the modernising judgement of the agricultural landscape projected by visualised cartographies.

6.2 Cartography and the Modernist Developmental Encounter

I contend that state maps as authoritative knowledges continued to reproduce rational landscapes and the anti-political economic imaginations of traditional agriculture in the local geographies of

Northeastern Ibadan hinterland. These authoritative knowledges echoed the outdatedness of official maps (Akinyemi, 2003, 7). Nonetheless, in their ontogenetic becomings, they continued reproducing anti-political economic imaginaries (Kitchin, 2008, 212; Walters, 2010). The National Topographic Maps carried ideological implications for the inferred agricultural landscape in the self-propagating vision of a modernising power. In addition, the invisibility of the agricultural landscape on the local government map drew attention to its enframing in the ever-shifting notion of rural development (Driver, 2012; Woods, 2011). In particular, these official maps continued to embed the political silence of agriculture, both previous welfarist-style and traditional farm landscapes. Conversely, imaginative knowledge of non-state authoritative experts revealed the concern of state-centric social welfarist logic with identifying material lack in rural spaces (Robinson, 2006) and proffering solutions in the rationalisation of space. Nevertheless, this social welfarist imaginary emphasised the value of visual prophecy of developmental visions. Therefore, the challenge before state-sanctioned neoliberal imaginary was not only subaltern agriculture on the landscape but also a visually entrenched social developmental paradigm (Bryceson, 2000).

6.2.1 National Topographic Identity and the Agricultural Landscape 1989

Fig. 6.1, a map extract, is currently the national topographic identity of the landscape in the northeastern Ibadan hinterland. The first printing of this National Topographic Map (NTM), Apomu NW262, was in 1966 and Fig.6.1 was a 1981 reprint of the topographic sheet. A 1962 aerial photograph formed the basis for this state gaze of Northeastern Ibadan rural landscape (Adebekun, 1986, 17; Balogun, 1989). Indeed, the depicted information at the time of its reprint in 1981 was out-of-date. The cartographic gaze has held this local space constant for almost sixty years. Although the technical gaze of the map held the local space fixed over time, the social gaze of the same map has consistently reproduced the landscape in different socio-spatial contexts (Kitchin and Dodge, 2007). For example, there was the inferring of the agricultural landscape.

This technical gaze posed some challenges. For instance, the designation of administrative geographies portrayed on the map was obsolete (Akinyemi, 2003, 10). In addition, it questioned the authoritativeness of the state cartographic gaze to represent the landscape (Coleman, 2013; Dodge and Kitchin, 2013, 28). Again, it queried the relevance of the national topographic identity of state topographic mapping in the digital era. The static space has held this cartographic stability within the spatial discourse of modern development since the early post-colonial period.

Nevertheless, it was still the currently available official topographic map of Northeastern Ibadan hinterland.

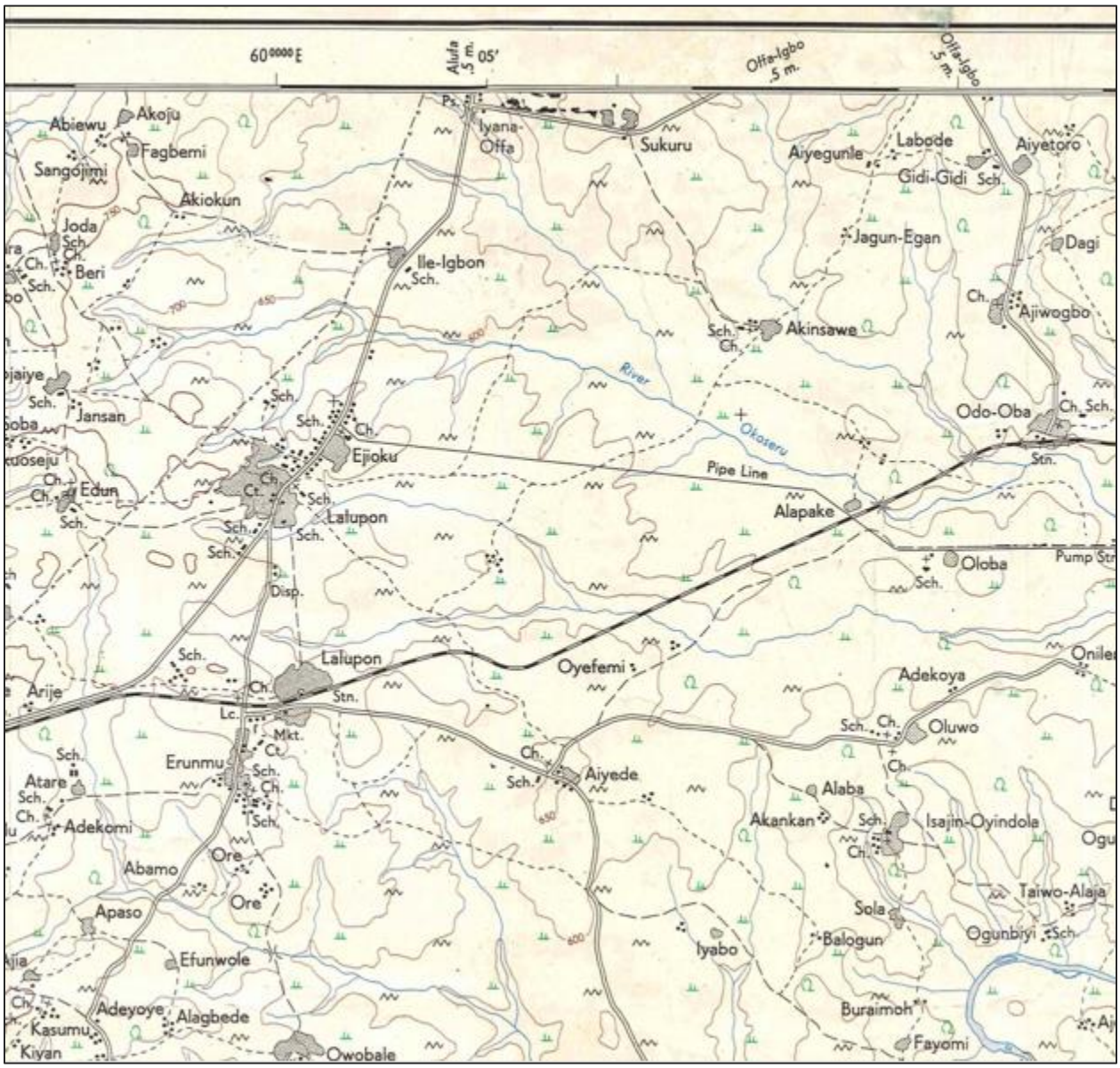


Fig.6.1 Topographical Map of Northeastern Ibadan Province, 1966: Source: Federal Surveys, Nigeria, Reprinted 1981. Scale1:50,000. (Lagos: Topographic Map Sheet Apomu NW262)

The visualised agricultural landscape of the NTM reflected a social gaze of state modernity. General-purpose maps, such as the NTM Series, reproduced the state perspective of the economic landscape. Several factors influenced the agricultural perspectives of the NTM, which includes scale. Hence, the idea of agricultural activity in Northeastern Ibadan hinterland deduced from the

NTM series of 1/100,000 (Apomu Sheet 262) and 1/50,000 (Apomu Sheet NW262) varied. Although there have been recent efforts towards the production of 1/25,000, the 1/50,000 remained the current national cartographic image (OSGF, 2014). While Apomu NW262 covered a substantial part of the study area of this thesis, NTM Iwo SW242 also covered a slight part to the north of the area. However, the social gaze of the agricultural landscapes is similar.

Graphic construction in Fig.6.1 employed linear symbols to depict topography and hydrology. For instance, contouring depicted relief at 50 feet interval with the contour line strengthened every 250 feet. Hence, identifying isolated hilly features are easier because of the thick weight of the contour lines. Again, blue-coloured lines portrayed river courses on the map face. However, one can note that the river system in the original print of this NTM sheet of 1966 was a black coloured line, a departure from the cartographic convention of blue hue (Tyner, 2010, 27). The graphic impression of vegetal cover on the landscape drew attention to one of the challenges of the 1:50,000 NTM sheet. This was the representation of vegetation as a point symbol (Akinyemi, 2003, 9).

Filling the map face was abundant cultural information depicted in point, linear and polygonal symbols. For example, the linear symbols of transport and communication features are prominently over the landscape. In addition, polygonal symbols portrayed several built-up areas of human habitation, but the point features of isolated buildings were also evident. Compared to NTM sheet NE279 and sheet NW279 (See Fig.4.16 and Fig.5.7) the landscape of Northeastern Ibadan had fewer isolated buildings. However, like other NTM sheets, the cartographic symbolisation in Fig.6.1 had wide coverage of scattered cultivation. The graphic impression for the viewer was a vivid picture of the rural geography of Northeastern Ibadan hinterland.

The geography of the depicted landscape reflected natural and cultural features. The natural elements visible on the landscape include the relief, vegetation and river system. As illustrated, the impression of the relief between Lalupon and Odo-Oba was that of a monotonous landscape. Likewise, the depicted vegetation suggests widely scattered light forest and scrub. In addition, the river system of Okoseru and its tributaries commands much of the landscape. The settlement geography was particularly a rural scene. For example, located to the west of Lalupon comprised several villages, including Edun village, situated in a pass. Depicting the town of Lalupon was two different clusters of built-up areas, the larger cluster being nearer to Ejioku. Compared to the 2021 Image of Google Earth of this landscape, the two clusters of the Lalupon settlement in the 1966

NTM (Fig.6.1) have spatially merged. Although Fig.6.1 was a more detailed representation of the Northeastern Ibadan landscape, it also shared some characteristics with earlier colonial maps of smaller scale. For instance, the portrayal of human activities on the USAMS re-issued NB31 1:250,000-scale map (See Fig.3.5). None of the state maps suggested active farming activity on the landscape. The depiction bequeaths biophysical geography that used topography and vegetation as a backdrop of a social world needing 'development' (Kippler, 2014).

The visual imagining of the agricultural landscape in Fig.6.1 perpetuates a modernist visual narrative (Danby, 2009). The cartographic discourse drew attention to three interrelated issues of an Othered agricultural landscape. First, there was the ideological implication of modernist visibilising strategies of subaltern agriculture in contrast to state economic visibility (Baker, 1992). For example, the agrarian landscape espoused in Fig.6.1, exemplified in the symbols of 'isolated building' and 'scattered cultivation', continued to impress a state of agrarian and rural backwardness (Boelens et al, 2019). This was the reproduction of the disordered pattern of subaltern farming associated with indigenous farm villages in the late colonial period (See Fig.4.16). The continued cartographic silence of agrarian activity from the subaltern perspective denied the everyday agricultural agency of the residents. This NTM does the incessant work of reproducing a backward agrarian space. Through these acts of becoming, the cartographic gaze of a backward landscape "were reinforced as part of the natural order of the world" (Harley, 1990, 4). In contrast to the Othered stereotypical perspective, there was the prominent visibility of the state economic landscape. In Fig.6.1 the railway station, pipeline and pump station highlighted modern economic infrastructure. Unlike the colonial and early post-independence era, there have not been specific official agricultural maps produced by the state until the rise of the small-scale state maps of neoliberal visions in the 2000s discussed in Chapter 5.

Second, this outdated visual framework served the anti-political economic imagination of the current neoliberal vision (Walters, 2010; Williams, 2021). The visibility of a backward landscape encouraged the idea of potential farmland and the advertising of modern scientific agriculture to develop rural economic potentials (See Fig.5.17). The scantily filled landscape in the NTM evoked a geographical image supporting the notion of the potential farmland used to the advantage of neoliberal visions. For example, there was the stigmatising the rural areas for the static traditional agricultural economy (Wacquant et al, 2014) which can only be vibrant through modernisation. Besides, the NTM are evidence that highlighted the failures of socialist and

Keynesian modernities of the past regimes (Lawson, 2007). Hence, it created a visual legitimacy for the market logic of neoliberal vision as the only developmental alternative on the agricultural landscape (Fuchs, 2020, 219).

The advertisement of modern scientific farming, exemplified in precision farming, heralds the inevitable path of rural and agricultural development (Agbaje, 2010, 6). The state narrative of large-scale agriculture in rural hinterlands, visually encouraged by the NTM, sustained the notion of large expanse of farmland. This vision of large-scale capitalist agriculture reintroduces the modernist logic of ordering the agricultural space (Pickles, 2004). Hence, the neoliberal vision of ordered capitalist development in these hinterlands advances. As there was no other rural landscape representation to provide a different view, they are becoming commonsense, at least in urban centres. Therefore, the lack of revised NTMs or other topographical maps that can give an updated picture of the landscape, which can question such neoliberal imagination and reveal it as disinformation was unavailable to the public (Interview, December 2020). The unavailability of up-to-date NTM and similar topographical information offered an information gap for structuring spatial consciousness to serve neoliberal thinking (Fuchs, 2020, 219).

Third, the agricultural politics of visibility continuously occlude local agricultural developmental vision on the rural landscape (Wylie, 2007, 67). Indeed, some state economic information was absent on the NTMs depicting Ibadan Northeastern hinterland. For example, unlike the NTM sheet Apomu 262 SE that depicts Ago-Owu Farm Settlement, NTM sheet Apomu 262 NW does not depict the Lalupon Farm Settlement. Again, older agricultural projects have no visibility on the national topographic landscape. This can be attributed to the non-availability of large-scale NTMs. Yet the more restrictive 1/25,000-scale official cadastral map of the area, at the Office of the Surveyor-General of Oyo State (OSGOYSG), does not depict this information as well (Observation, December 2020). Apart from Lalupon Community Development (CD) Farm, there was also the establishment of other CD Farms by the Ministry of Economic Planning and Community Development (MEPCD) at Ejioku and Erunmu in 1961 and 1962 respectively. These economic spaces remained important in the spatial memory of the older folks.

An elderly resident, a retired teacher, at Erunmu noted, in regard of the Erunmu Farm, that when the state government in the 1970s had abandoned its CD strategy, “there was no effort to resuscitate it” (Interview, December 2020). The farm project site, which was devoted to several agricultural activities including cashew growing, fishing and so on, was so oblivious to current

younger residents that its location was unknown. Even several older farmers do not know about this site (See Fig.6.2). For instance, I approached another elderly man, a discharged soldier, but presently farming in a farm-village near the town of Erunmu, about this former CD project. He replied, “I do not know anything about the CD farm or its location” (Interview, December 2020). The previous elderly participant observed, “no relic of cashew trees remained. When it was not functioning again, they [the government] took it [what was left of the facilities] to the Agric Centre opposite Onibu-Ore” [an area now part of the city of Ibadan] (Interview, December 2020).



Fig.6.2 Remains of the moribund Erunmu Farm Project. (Source: Author, 2020)

Another participant, a grandson of the previous elderly participant, took me to this moribund site of the Erunmu CD farm. He, a university undergraduate, drew attention to this local developmental activity of the past, emphasising it to contest the state narrative of the “unresponsiveness of rural residents to progress” (Interview, December 2020). By contrast, the Ejioku CD farm, which operated mainly as a poultry farm, lingers on. The farm known in local geography as Adelakun’s poultry still has one functional pen under private ownership (See Fig.6.3). These spaces of former CD agricultural projects in Erunmu and Ejioku reflected the spaces of neglect that older rural residents emphasised in their contest of state visions of rural development. Participants who examined the NTM Apomu 262, noted the lack of this spatial

information, and lamented the lack of any map to fill this gap of knowledge. Hence, the appearance of the official topographic landscape does not reflect local developmental interest.



Fig.6.3 The only functional Pen at the extreme corner of the moribund Ejioku Farm Project (Source: Author, 2020)

6.2.2 Local Authority and the Developmental Landscape 1980s

Entitled, "Lagelu Local Government Map", Fig.6.4, a map extract, is the current official map of Lagelu Local Government Area (LGA) of Oyo State. The map production was probably in the 1980s or the early 1990s. A private firm, FAF Planners at Agodi, Ibadan, produced this map. Considering its identity as Plan Number FAFP/LM 5, the mapmaking was from town planning or architectural draftsmen. Since the local administration did not possess the capability to produce its maps, it had to depend on private outfits. Again, it drew attention to the trend that mapping was usually "lumped together with town and country planning" in state administration (Ufuah, 2003, 2586). Regardless of the creation of new local administrative areas out of the LGA over the years, Fig.6.4 retained the official visual gaze of the administrative geography of Lagelu LGA when founded in 1976. This LGA had its headquarters at Iyana-Offa and "was part of the Ibadan East District Council created in 1961" (Oyo State Government Website, 2020).

Balogun (1989, 326-329) noted the active institutional use of maps at the state bureaucratic level in Oyo State. Map use in Lagelu LGA attested to this observation, but there was a challenging dimension to the current map situation at the local government level in Oyo State. For instance, the challenge of outdated geographic information, inadequate staff and lack of digital facilities revealed the status of maps and mapping in local government administration. Hence, the challenge of outdatedness of state cartography resonates from the national to the local state. Nonetheless,

Fig.6.4 remained the official map of the LGA (Interview, November 2020). This administrative gaze offered visual clues to the agricultural landscape of the northeastern Ibadan hinterland. First, it drew attention to the underlying logic of agricultural development and second, the inherent anti-political economic imaginations framing subaltern agriculture in the contemporary post-colonial state. The map portrayed, as I showed below, a developmental gaze of state power through cartography.

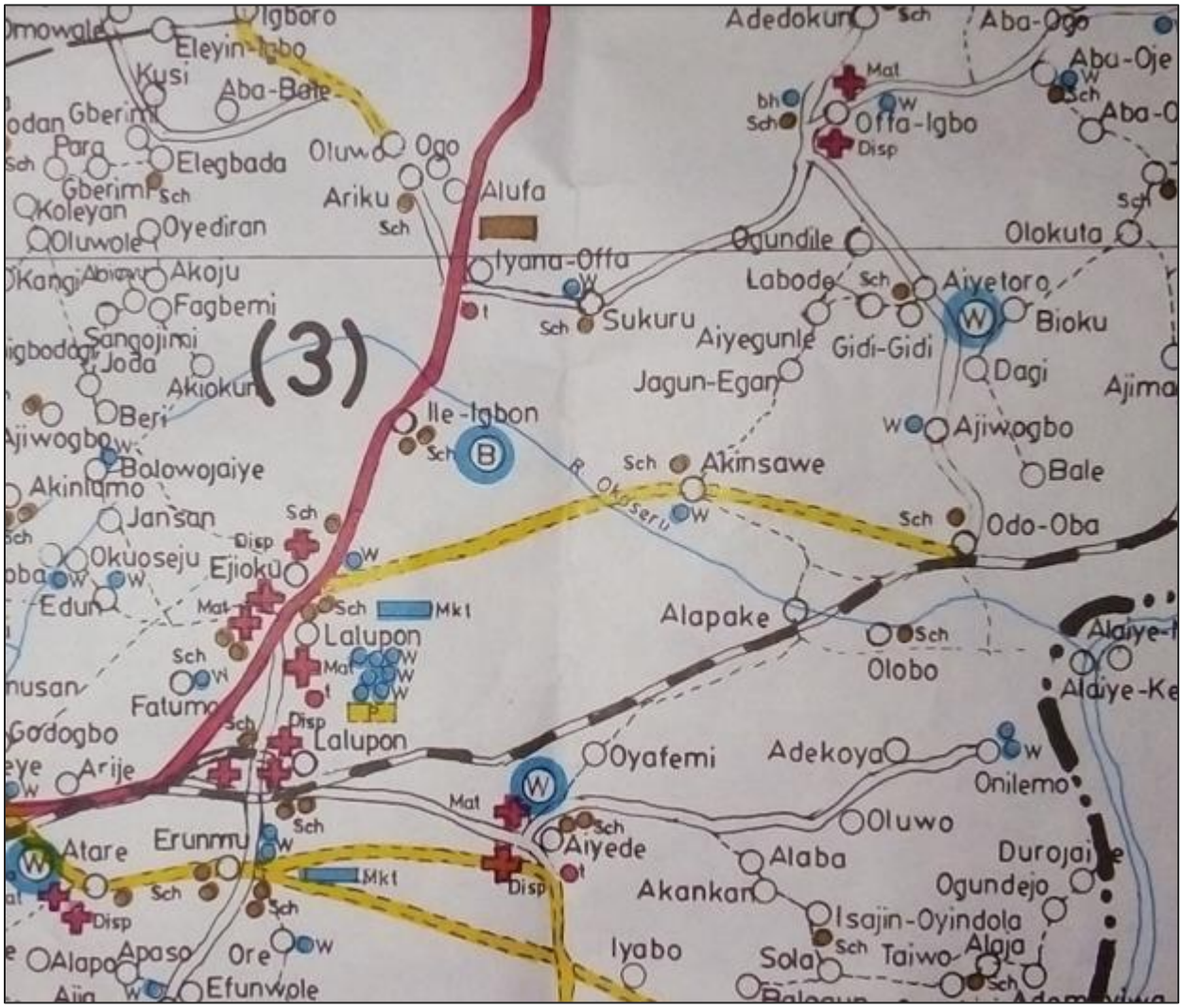


Fig.6.4 Map of Lagelu Local Government Area Showing part of the Northeastern Ibadan Rural Hinterland, 1980s. Scale 1:75 (Iyana-Offa: General Administration Department, Lagelu LGA, 2020).

In Fig.6.4, linear symbolisations predominate the graphic construction of the local state. These linear symbolisations represented transport networks and administrative boundaries. There were different sets of transport network lines. As indicated, the sharp, loud colour depicting the main road network seems to render other symbolisation less important. There are also linear symbols representing sets of administrative boundaries. For example, the thick dash lines depicted the boundaries of Development Areas. In addition, thick chain lines portrayed the LGA boundaries. There was also polygonal and pictorial symbolisation of features. As illustrated, the circular symbols represented water facilities accompanied by labels on the map face. In addition, there are cross symbols that depict three forms of health facilities.

The geography of the Northeastern Ibadan landscape depicted in Fig.6.4 was devoted to a detailed picture of cultural features. In contrast to Fig.6.4, another Local Government Map, the *Map Showing Ibadan North Local Government Area* was essentially an administrative map drawing attention to Sub-Areas and Wards. As Fig.6.4, the map of Ibadan North LGA that shared a boundary with Lagelu LGA, was also multifunctional, the sole cartographic gaze of the local state. Although alternative mapping platforms such as Open Street Map are available, these mapping platforms do not display and label certain local spatial information. Unlike the subnational state, the local governments lack particular digital and promotional maps to persuade residents concerning the local politics of development. Thus, political will and funds determined cartographic representations of authoritative viewpoints. The rural landscape in Fig.6.4 seems to make prominent through its partly rough graphic representation, the ascribed developmental problems of local geographies.

Fig. 6.4 revealed the notion of rural social welfare as the bedrock of agricultural development narrative (Eicher, 2003, 7; Lawson, 2007, 91). Hence, there was prominent visibility to development areas and social welfare projects on an implicit agricultural landscape. This visuality documented the shift of state developmentalism in the 1980s from long-term peasant agricultural projects to rural social welfare services (Bryceson, 2000, 2; Eicher, 2003). This was evident in the five Development Areas of the LGA depicted on the map face. For example, the third number, boldly inscribed, was the "Iyana-Offa Development Area". Included in this third development area are Lalupon and its immediate environs. The Iyana-Offa Development Area replaced the Lalupon-Erumu Community Development Block (LECDB), created during the early post-colonial period. The LECDB initiated the aforementioned CD Projects at Lalupon, Erunmu

and Ejioku in 1961. Fig.6.4 revealed state cartographic power in visualising state developmentalism as the natural order of the world (Harley, 1990; McGowan, 2013).

Filling this 'third development area' in the LGA was geographic information on rural social services. For example, near Ilegbon at the centre of the map face, a small circle enclosed with a bigger blue-coloured circle with the label "B" referred to a water borehole facility constructed by the central government's directorate of rural development. In contrast, near Offa-Igbo towards the north of the map segment, was a proportionally smaller blue coloured circle, with the label "bh" that referred to water borehole constructed by the Local Government. Indeed, the map's subtitle "Action Area Plan for General Redevelopment" disclosed a cartographic record of development planning on the depicted rural landscape. However, in line with the nascent neoliberal developmental modality, there was no hint in Fig.6.4 of any governmental agricultural organisation nor subaltern agrarian support facility. Eicher (2003, 26) notes, "One of the undesirable policy biases of the new aid modalities…..appears to be that public agriculture investments are being reduced even though they are the key to increasing smallholder incomes and transforming traditional agriculture. The empirical evidence is clear: rural social services cannot transform African agriculture".

Like the NTM Sheet 262, Fig. 6.4 served anti-political economic imaginations of traditional agriculture explicit in the neoliberal vision. Fig.6.4 reproduced a state imaginative geography where subaltern agriculture constantly becomes invisible, normalised as backwards or not the top priority. In contrast, the neoliberal vision promises a potential agricultural landscape of efficient economic productivity through capitalist strategies (Castellanet and Diepart, 2015; Lawson, 2007, 76). For example, the initiation of the Erunmu Inland Container Depot partly relied on the availability of potential land and the eagerness of the Erunmu community for local development (See Fig.6.5). Unfortunately, the diversion of the newly built standard railway gauge route from Northeastern Ibadan to Northwest Ibadan (See Fig.5.21) aborted the dry port project. Hence, Erunmu Dry Port became part of the 'developmental landscape' dotted with the relict of previous state developmentalism at Odo-Oba, Ejioku, Erunmu, llegbon and several places which ironically are currently used as a rallying theme by local political functionaries to support the neoliberal vision of rescuing modern rural development (Lawson, 2007, 159).



Fig.6.5 Site of the former Ibadan Inland Dry Container Depot, Erunmu (Source: Akinselure, 2017).

The narrative of modernising agriculture through capitalist strategies heralds support for the state-sanctioned neoliberal imaginary in these localities (Williams, 2021). The genre of state promotional visualisations including maps deployed (See Fig.5.10 and Fig. 5.11) visualised these promises of revamping all agricultural projects while adding new agricultural parks, as I have discussed in Chapter 5. For example, some of the local governing class in Northeastern Ibadan rural hinterland revealed their support for the Public-Private Development Partnership of the subnational state as a mechanism to revamp several abandoned rural agricultural development projects (Filed Observation, December 2020). Other local chieftains are skeptical of neoliberal promises and held on to the logic of social development (Interview, January 2021). Therefore, the resuscitation of the Odo Oba Oil Mill, for instance, has been a particular piece of developmental object in local politics (See Fig.6.6). This has an impact on local developmental and electoral politics.

The agricultural politics of knowledge was also evident in the visualised local geographies of Lagelu LGA. The Local Government does not have links to digital geospatial platforms. However, some rural citizens are aware of digital cartographies such as Open Street Map (OSM). Unlike Fig.6.4, the display of Northeastern Ibadan on OSM drew the attention of citizens to

question the local state's picture of local geography. For instance, comparing OSM, the participants at Ejioku and Erunmu drew attention to the rapidly shrinking potentiality of farmland in areas of Northeastern Ibadan hinterland closest to the city of Ibadan (Interview, December 2020). Again, the social gaze of the citizens reproducing this Local Government Map drew attention to the invisibility of self-help projects. For example, a social improvement project of the Erunmu Development Association - the Erunmu Town Hall at Kasumu (Interview, December 2020). There has always been rethinking of development in Ibadan from a social paradigm, including developmental visions in Northeastern rural hinterland. This social welfarist vision also reflected through cartographic forms of geographical imaginaries.



Fig.6.6 Remains of the Pioneer Oil Mill, Odo-Oba (Source: Author, 2020)

6.2.3 Cartographic Imaginary and the Ibadan Developmental Landscape 1986

Fig. 6.7 titled “Ibadan Region in 2020 A. D.” was an imaginary gaze of regional planning and development. This region includes the city of Ibadan and the immediate rural hinterland surrounding the city. Oluremi Obateru, a geographer and physical planner, produced the regional plan (Obateru, 2005, 204). As aforementioned, Nigerian cartographers, have often commented on ‘lumping together’ of land surveying, town planning and remote sensing (Balogun, 1989, 243-246; Ufuah, 2003). Nonetheless, these specialisations of the mapping profession are doing the same work at different levels. As Hall and Tewdwr-Jones (2011, 4) observes, “spatial planning or urban and regional planning, is essentially human geography in these various aspects, harnessed or applied to the positive task of action to achieve a specific objective”.

The Sketch Newspapers initially published this regional development plan in 1986 (Obateru, 2005, 203-204). This was a development plan that visualised the spatial thought of the geographer. It was a thought shared by the society and drew upon the cultural resources of the society regarding the material improvement of this region. This imaginative geography suggested a developmental landscape implicitly but not explicitly concerned with agriculture. While the previous two state maps, (Fig.6.1 and Fig.6.4) fixed time in space, this map projects space-time. A fundamental element of regional planning was forecasting the future (Hall and Tewdwr-Jones, 2011). The cartographic gaze in Fig.6.7 imagined and anticipated 2020 A.D.

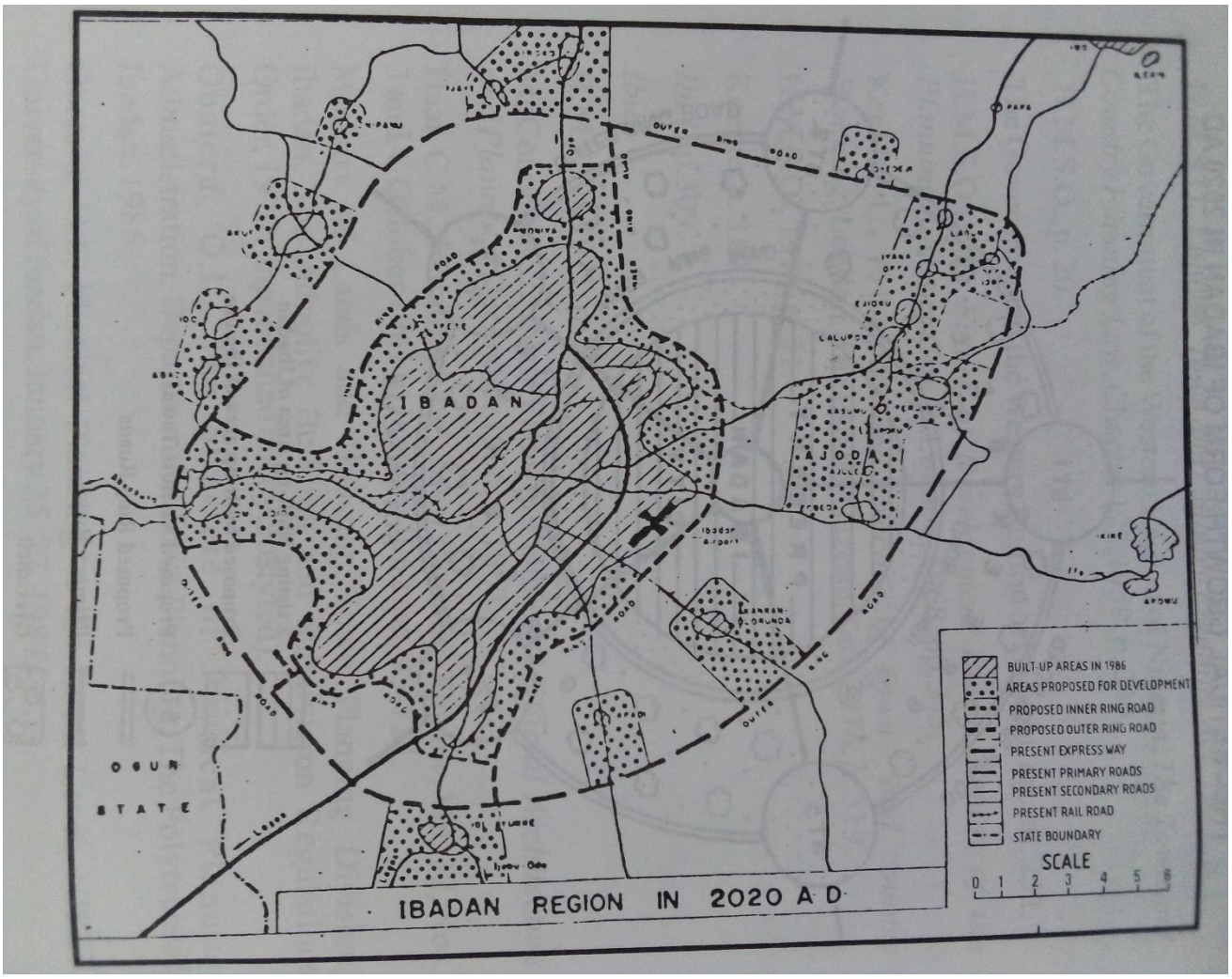


Fig.6.7 Regional Plan of Ibadan and Environs, Sketch Newspaper, 1986 (Source: Oluremi Obateru, 2005).

The graphic symbolisation employed simple background to frame the vertical perspective. For example, there was the use of the administrative boundary of Ogun State on the lower-left corner of the map-face. Varied geometric symbolisation drew the attention of the map reader to the map centre. For instance, the repetitive lines at the centre of the plan-view introduced a regular pattern that created a visual appeal. In contrast to this monotonous line pattern are different linear symbols of chain and dash lines at the edges that reflected an impression of order. This order shaped through graphic construction drew the viewer's attention to several parts of the depicted landscape. For example, the focus on the plan-view was the larger polygonal shapes of the city but pockets of shapes representing outlying areas were sufficiently visible and distinct through the

attractive use of dotted symbols. Hence, the repetition of geometric shapes generated a "feeling of order" (Kennedy et al, 2016, 15). In addition, the bold label of the title reflected the purpose of the visualisation. It was an imagination of space, an intention ascribed to the landscape. This graphic impression of urban geography also communicated the concern of regional planning and development.

The concern for regional development around the city was evident in the clusters of spatially bounded outlying areas. For example, the mapmaker identified these dotted outlying areas as "Areas Proposed for Development". One of these bounded areas situated to the western hinterland was the locality of Ido LGA at the edge of the Outer Ring Road. To the northeastern direction of the city was Lalupon and neighbouring settlements in Lagelu LGA. Along the main road from the city are three towns depicted in Northeastern Ibadan hinterland: Lalupon, Ejioku and Iyana-Offa. To the south of these towns was Erunmu, and the village of Kasumu, further south was Ajoda, differentiated by its label and purpose as the site of a New Town – a modern satellite settlement. In addition, the proposed Outer Ring Road bounded this dotted area – northeastern Ibadan hinterland. The varied symbolisation evoked prospective development that created an imaginary world (Hynes, 2018). It was an image of the Ibadan city and its hinterland thirty-four years ago, projecting the future in 2020. Fig.6.7 was not a state cartographic device but the current event in some parts of the 'areas proposed for development', as Fig.5.21 depicted, indicates the prophetic power of cartographic imagination.

Fig.6.7 evoked the notion of a social welfarist landscape, although the mapmaker did not set out to invoke a socialist-oriented space. The Areas Proposed for Development mirrored the planner's imagination of development. Obateru (2005, 29) noted that in development countries "agricultural production is a prerequisite for both industrial and balanced rural-urban growth". Besides, he drew attention to small-scale industries and support for indigenous entrepreneurship. I suggest that the planner envisioned the 'areas proposed for development' marked on the plan for agricultural improvement. Although human imaginations are usually individual, they are also cultural since they utilise cultural resources from stories, books, commonsense and past developments (Beckmann, 1988; Zittoun and Gillespie, 2016). Raising the standards of living of society, argues the map author, was the aim of development planning. Again, this economic development planning was synonymous with socialism. For instance, he referred to Obafemi

Awolowo's contention (*Africa Now*, No.9, 1981, 133) that the "whole purpose (of socialism) is to raise the status of all people" (Obateru, 2005, 11).

Indeed, the description of social planning was synonymous with social welfare planning (Obateru, 2005, 10-14). In this social welfarist planning, "The government does not allow the forces of the market to operate freely for the purpose of minimizing socio-economic inequalities among its subjects. It is in pursuance of this objective – of social justice – that socialist governments seek to combat…social problems" (Obateru, 2005, 12). In addition, this depicted landscape evoked the notion of state-centric development (Lawson, 2007; Woods, 2011). For instance, the regional planner viewed development planning as essentially, "the responsibilities of political decision makers" (*Ibid*, 13). Therefore, Fig.6.7 resonated at the time of its production the ideologies of social welfarist modernity as an era of economic stagnation began in the 1980s.

This entrenched view of the Old Western Region has been a challenge to the era of economic liberalisation. The distrust of this Afro-social welfarism has been the intensification of the neoliberal narrative taking a visual form to help dissuade this perceived social welfarist commonsense amongst the citizenry (Radcliffe, 2012; Williams, 2021). However, this contestation of pro-social welfarist ideas was a contention within modernity itself: a contention between capitalist and Keynesian-welfarism modernities (Danby, 2009, 1121). Paradoxically, neoliberal capitalist visions have been appropriating these social dreams for capitalist profit through local capitalist functionaries and their international collaborators (Harvey, 2005a; Peck and Tickell, 2002). For example, the initiation of the 110 km Ibadan Circular Road Project as a partnership between the State Government and a Chinese firm "on a build, operate and transfer agreement" (Akinloye, 2017).

While the initiation of the idea of Outer Ring Road became a contest of partisan politics since 2017 (Ojoye, 2017; Akinloye, 2017), cartographic imaginaries such as Fig.6.7 had been its visual trajectories before the present. In addition, the ongoing effort of transforming Akufo Farm Settlement in Northwestern Ibadan hinterland into a neoliberal-oriented agro-industrial estate reflected preceding visual imaginaries such as Fig.6.7. Social welfarist ideas entrenched in cartographic form might be appropriated by neoliberal vision, but it drew attention to the power of visual images as a guide to societal possibilities.

The state-centric social welfarist perspective of organising economic development as evident in Fig.6.7 continued to inform subaltern imaginaries. The visualisation of space has been

a particular way of engaging and representing a "remembered past" (Walder, 2011, 73-74). For example, the state-centric social welfarist ideas embedded in Fig.6.7 draws from indigenous collective aspirations of conceiving the economic landscape in its encounter with the notion of modern development. This social welfare developmentalism "concerned with the things they lack" on the rural landscape (Robinson, 2006, 20) leaves issues of what was needed and existing opportunities unattended (Jahoda, 2018, 114). While this social welfarist positioning continues to inform visual-spatial thinking, locally defined development was also emerging, as aforementioned in Chapter 5 (Section 5.3.4), engaging the past to make sense of the future.

These locally defined developmental visions are contesting these versions of modernity through re-directing their interest towards matter-of-the-moment in the face of decades of economic stagnation (Lewis, 2006; McEwan, 2009). For example, there are emerging ideas of future agrarian development of Northern Ibadan rural hinterland amongst several Community-Based Organisations (CBOs). However, there are also emerging counter-narratives to the one-dimensional neoliberal narrative of the subnational agricultural landscape. For example, at the Lalupon Government Farm Settlement Scheme, there are divergent views to the visual statements made in the genres of state propaganda visualisations including maps.

6.3 The Verbalisations of Subaltern Landscapes: Actual Reality and Agrarian Imaginary of Settlement Schemes

There are growing responses amongst the citizenry to the increasing trend of neoliberal thinking in the agricultural economy. In the local geographies of Northeastern Ibadan rural hinterland, the cultural economic encounter with neoliberal agricultural logic results in diverse spatial imaginaries, some as subversive, and others as alternatives (Fabricant, 2012; Lawson, 2010). I contend that subaltern epistemologies contest this neoliberal structuring of the landscape with counter-narratives and hybrid forms of spatial knowledge. Considering the littered relicts of state-led modern development on the northeastern Ibadan rural landscape, counter-narratives drew attention to actual realities of the state economic landscape while alternative narratives reinterpret the agricultural settlement scheme. Individual agency, social organisation and adaptive mechanisms are evident in responses to the neoliberal logic of market that seeks to influence everyday spatial behavior (Harvey, 2005b). Hence, how do subalterns respond to the trendy state-sanctioned neoliberal logic of agriculture in state-spaces in light of lived experiences at Lalupon

Farm Settlement? In what ways do subaltern groups re-imagine and re-interpret the agricultural settlement scheme beyond state modernist rationality?

6.3.1 Cognitive Maps: Counter Geographies of Lalupon Farm Settlement Scheme

The discursive representations of state agricultural landscape as spaces of everyday life of subalterns are evident of counter-logics to neoliberal agricultural imaginary. Lalupon Farm Settlement (See Fig.6.8) is located in Lagelu Local Government Area, known in local geography, as 'Sasa-Aladie'. There are no accessible state maps of the Lalupon farm settlement. For instance, I was not able to secure a state map or layout plan of the Lalupon farm settlement. A state agricultural bureaucrat at the State Government secretariat said, "It will not be made available to you", (Interview, January 2021). It was apparent that there would be an old early post-colonial map of the farm settlement, considering the layout plans of former WNLSS farm settlements.

Indeed, in 1961 the Block Officer of the Lalupon-Erunmu Development Block had requested for land surveying of Lalupon CD Pilot Project Farm. The secrecy of maps of state spaces still pervades in state bureaucratic circles (Rambaldi, 2005; Yoo, 2014). Interestingly, there was the conviction amongst some farmers at Lalupon Farm Settlement that a map of the farm settlement will be available at the government secretariat rather than at the settlement office. Nonetheless, there were other governmental frames of reference, for instance, statistical devices for seeing and knowing every farmer (Legg, 2007), as I have argued in Chapter 4 (See Fig.6.10). What spatiality of Lalupon Farm Settlement would farmers unveil? Does this verbalised, unveiled spatiality of subaltern farmers agree with the genre of state promotional maps?



Fig.6.8 Signpost of Lalupon Farm Settlement (Source: Author, 2020).

The framing of the descriptive geography of the farm settlement involved the entire area of the farm settlement and its farm holdings. The cognitive maps of farmers involved comparison with other farm settlement landscapes. For example, Participant LB's general view of the settlement scheme involved a mental-verbal examination of the signpost at the front and rear entrance as well as the ponds and town to the north and south respectively. Hence, he noted the smallness of the entire geographical space of the Lalupon farm compared to the size of the settlements at Ijaye, Ilora or Ogbomoso. Similarly, LW commented that the entire spatial extent of the Lalupon farm settlement was "the allotment of a single farmer" elsewhere on the state-owned farm settlement landscape (Interview, December 2020). However, describing the farm holding system was more interesting in their geographical perception of the Lalupon farm settlement landscape.

These conceptual images of the farm settlement reflected similarities and differences amongst farmers. A fundamental similarity was the role of land holdings held by farmers in organising the mental image of the state-space. For example, Participant LS focused on the pen - the size and functionality of the micro-geographic space. LS remarked, "That the pen may have good care, it will be nice to have a larger piece of land than what we have here now" (Interview, January 2021). He argued that instead of the current plot size, an acre of land would be more appealing for farmers. He was commenting on the tight geographic space, which made very farmer firmly under the gaze of the state. As LS observed, "Every pen as a number, it is when they [state

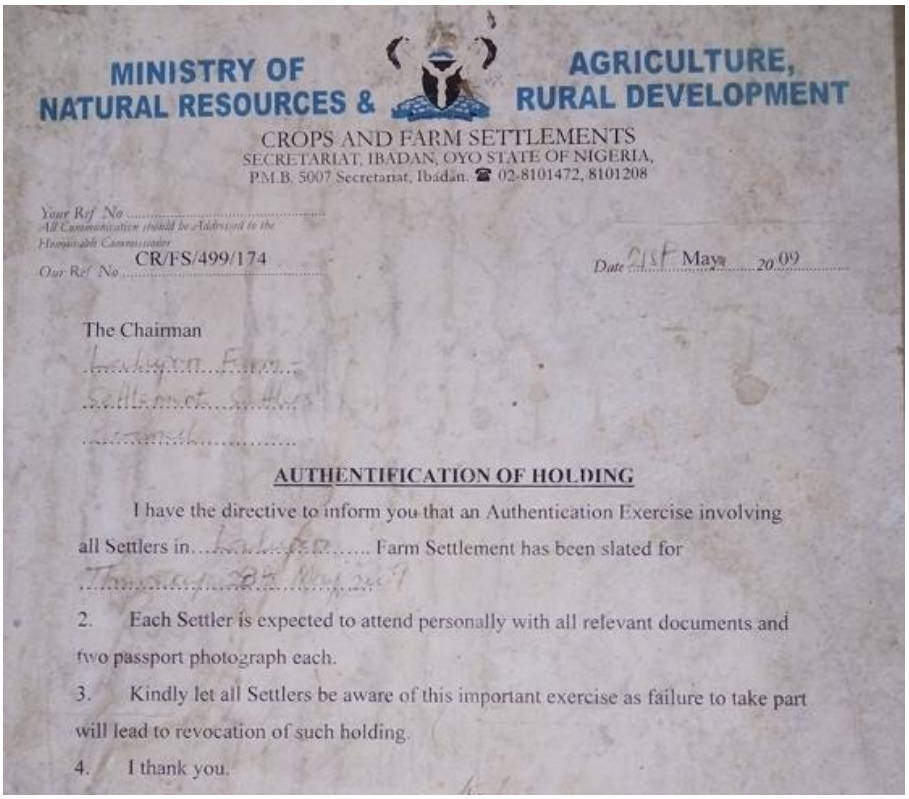
officials] come to count it for us that we know the number. They will have the farm plan at the [State] Secretariat" (Interview, January 2021). The farm holding system was firmly entrenched in the spatial thoughts discussed by several farmers. The space of economic production on the farm settlement consists mainly of poultry pens and fishponds (See Fig.6.9).



Fig.6.9 Poultry Pens at Lalupon Farm Settlement. (Source: Author, 2020)

The mental image of the whole farm settlement seems less interesting to most farmers than making sense of their individual farm holdings and its pens. For instance, the spatial comprehension of micro-agricultural space by Participant LW was through the farm holdings. Participant LW, an executive member of the Farm Settlers Association (FSA), explained that "the pen and its surroundings" making up the farm holding is about 30 feet x 60 feet (Interview, December 2020). There was one poultry pen per holding. Other settlers complained that the physical space for each pen and holding was not sufficient. For example, a farm settler observed that the 'standard measure' for a pen and its surroundings was a plot of land, about 500m^2. (Interview, December 2020). It was apparent that the approximately thirty farmers across the Lalupon farm settlement would share this perception of insufficient space; I suggest similar elements of the images of the farm holding and pen sizes in their mental maps. Although there

were similarities in their images of the spaces of everyday life within the farm settlement, different farmers emphasised different aspects of that state-space. Hence, there was always that momentary mental image of what the whole farm settlement might look like during such verification encounters with the state government (See Fig.6.10).



MINISTRY OF NATURAL RESOURCES & AGRICULTURE, RURAL DEVELOPMENT

CROPS AND FARM SETTLEMENTS
SECRETARIAT, IBADAN, OYO STATE OF NIGERIA,
P.M.B. 5007 Secretariat, Ibadan. ☎ 02-8101472, 8101208

Your Ref No .....
All Communication should be Addressed to the Honourable Commissioner
Our Ref No CR/FS/499/174

Date 21st May 2009

The Chairman
Lalupon Farm-
Settlement Settlers
.....

AUTHENTIFICATION OF HOLDING

I have the directive to inform you that an Authentication Exercise involving all Settlers in Lalupon Farm Settlement has been slated for Thursday 28 May 2009

2. Each Settler is expected to attend personally with all relevant documents and two passport photograph each.
3. Kindly let all Settlers be aware of this important exercise as failure to take part will lead to revocation of such holding.
4. I thank you.

Fig.6.10 Notice of "Farm Holding" Verification Exercise at the Lalupon Farm Settlement in 2009 (Source: Author, 2020).

There are counter-narratives of neoliberal imaginations of the subnational state in these descriptive geographies of Lalupon farm settlement. Unlike the visual advertisement of a 'trendy, doing good economy', there were fundamental challenges in this state agricultural landscape. First, several farmers, as aforementioned, were concerned with the pen size on the farm. For example, LS noted that the state government should "build the pen and construct their [farm-settlers] residence beside it…Everyone should have a pen and house [in their farm holding]". Several farmers wanted larger farm sizes for their pens and a residence. The issue of residence or 'labour lines', the very essence of the notion of the farm settlement, has consistently been shelved by the state government but intentionally made pronounced in all the farm settlements in visualised state narratives.

Second, farmers were interested in extensive corn farming on the farm settlement. Although there was the cultivation of maize farming in the farm settlement to provide pen grains, a farmer observed, "the maize grown here is not enough" (Interview, December 2020). He complained, "yet the government blocks the border [not allowing importation of corn] leading to high cost of [available] pens grains". Besides, there are unoccupied holdings and forested lands they considered potential site for expanding cultivation. Thus, farmers reimagined the unused farm plots on the farm settlement for farming rather than being unoccupied, awaiting renting as the state was eager to do.

Third, there was a general concern with the state of physical infrastructure. Another farmer emphasised, "only the land is provided by the government, no other thing (like funding, electricity, water, etc.) are provided – every other thing is done [provided] by ourselves" (Interview, December 2020). The settlers' view on infrastructure was a contrast of the state visual narratives in infographics and maps (See Fig.5.10). Farmers' solidarity provided whatever service or infrastructure used collectively. The Farm Settlers Association (FSA) has become the decisive institution in the everyday management of the farm settlement not only at Lalupon or Oyo State but also throughout the Southwest Nigerian farm settlement landscape. By way of example, the state addressed Fig.6.10, a letter of farm holding authentication exercise, to the Chairman of the FSA. As a result, farmers dwelt on describing the relics of the past. The power to represent the realities of the settlement scheme, as "creators of knowledge" (McEwan, 2019, 266) from their perspective drew attention to a counter-story of state agricultural landscape.

Lastly, there was a difference in the notion of commercial agriculture as understood by the farmers and as narrated by the subnational state. In place of the production of a modern agricultural subject of the early post-colonial era, the neoliberal capitalist tradition of 'do-it-yourself' ideology sought the emergence of entrepreneurs that makes little or no demand on the state. Hence, the disciplinary-oriented settlers' committee of the early post-colonial era turned into the solidarity-inclined FSA. When governmental administration of the settlement scheme collapsed in the 1980s a new history of economic production arose whereby farmers who remained on the state farm settlements drew upon indigenous adaptive skills and social organising to survive economically. Indeed, a Lalupon indigene asserts that it was due to the individual perseverance of farmers that kept the farm settlement active when authoritarian regimes "totally abandoned the settlement scheme" (Interview, November 2020).

The rise of the neoliberal model sought to adapt this subaltern ingenuity into the logic of market. However, the subaltern logic of market reflected social patterns rather than the autonomous, self-interested choice of the rational individual model (Hopkins, 2020; Thompson, 2008; Zein-Elbadin, 2011). The neoliberal narratives of state agricultural landscape represented and advertised the marginal success of subaltern solidarity of keeping some farm settlement functional, as if, an example of their self-interested profit-making motive. Interview data revealed this state narrative did not represent subaltern's logic (Interview, December 2020). As Quintana et al (1998, 5) notes, "peasant rationality embraces market rationality, but under distinct meanings". Hence, the subaltern logic of market embedded communal solidarity as evident in the farmers' perception of the economic space.

The conditions of the existing state farm settlements affected the notion of the CFS amongst farmers in the state-space. Several persons, including farm settlers, in the northeastern Ibadan hinterland held the view to revamp the existing farm settlement scheme. For instance, almost all participants at the Farm Settlement at Lalupon remarked that the state should restore the operational capacity of the farm settlement schemes. Besides, as I have shown in Chapter 5, the call for reviving the settlement scheme is ongoing advocacy in print and electronic media. However, they responded differently to the spatial imagining of a community-owned farm settlement scheme. For example, participant LB asked, "Why create a CFS if the existing farm settlement barely exists?" (Interview, November 2020). Similarly, another participant LM, reasoning like LB, found it difficult to imagine differently the notion of the farm settlement. However, reflecting further on the notion of the CFS, LM thoughtfully remarked that such "an idea would assist rural areas to be enterprising and attractive" (Interview, November 2020).

6.3.2 The Imagined Cartographies of Community Owned Farm Settlement Scheme

There are emerging alternate narratives to the state-sanctioned neoliberal agricultural imaginary in the contestation and reinterpretation of the agricultural settlement scheme. I contend that the discursive representations of agricultural space amongst subalterns are evident with hybridised logics of a farming settlement scheme. Although many indigenes of Lalupon are particularly concerned in their mental image of Lalupon Farm Settlement – Sasa Aladie – as a place of environmental pollution, they were not averse to the notion of a community-based farm settlement scheme. Indeed, the perceiving of been neglected by the state have made those "whose voices are

usually not heard" (McEwan, 2019, 268) more eager to share their imagined futures. Therefore, what sorts of spatial awareness of a CFS were unveiled?

Several geographic imageries of Community Farm Settlement (CFS) emerged from discussions with several citizens in towns and villages of northeastern Ibadan hinterland. Knowledges, concerns, and lived experiences of several citizens influenced the discursive constructions of a CFS. For example, the representational legacies of colonial and post-colonial rationalities of the settlement schemes and the logic of age-long indigenous farm village practice resonated in the various perspectives that emerged. Several spatial themes reflected in verbal communication of the CFS including potential farmland, farm size, farming system, tillage, infrastructural layout and locations (See Table 6.1). I examined four spatial perceptions of the CFS, selected from Edun, Ejioku and Lalupon in Northern Ibadan rural hinterland.

Spatial Perceptions of Community Farm Settlement

Participants who attempted the spatial imagining of a CFS characterised the imagined landscape with locational and attribute information. The conceiving of the geographic image of participant LB, a Lalupon indigene who was also a farm-settler, was through the potential farmland and farm size. Despite LB initial questioning of the reason for a CFS, as above-mentioned, he eagerly engaged the idea, "as a person interested in community development" (Interview, December 2020). He could not conceive farmland bigger than 50 acres. In addition, the participant, who was a young technician, tried to distinguish between a CFS devoted to livestock only and a CFS committed to both crop and livestock farming. LB thought, "10 acres of land is sufficient for a CFS based on livestock farming. If crop farming like cassava is included, 10 acres is insufficient…a CFS with crop farming will require 50 acres" (Interview, December 2020). His interest in cattle rearing influenced this view.

Again, his mental image of farm size allocation to each farmer was closer to the average size of traditional farming noted by Oluwasanmi (1957). LB said, "I think 2 acres is profitable for each farmer". The spatial extent of Lalupon, I suggest, closely influenced his idea of a CFS evident in the perceptions of small size farmland and farm holding allotments at the Lalupon farm settlement. However, I enquired further, how profitable a two acres allotment could be. The participant was confident with that size of land any individual farmer, in the hinterland, could secure profitable farming if other support facilities - water, electric light, stores – are available. This was a sharp

contrast to the 25-acres (10 hectares) allocation regulation in Oyo State farm settlements. Although a well-known regulation, it did not apply to Lalupon farm settlement owing to its size (See Table 5.2). He opined that securing potential farmland to establish a CFS through land purchase in the hinterland was the best approach for any community.

At Edun Village, I discussed with three participants the size of the entire farmland, potential locations of a CFS, the art of heap-making and cropping systems. Like LB, they could not conceive farmland bigger than 50 acres. These Edun villagers argued that a scheme of 30 acres should "be divided equally amongst the farmers, for example, a group of six young farmers" (Interview, December 2020). For participant EM, a young farmer who was also a truck driver, the idea of a small scheme for six farmers seems reasonable for the Edun Youth Development Association to manage. Unfortunately, he did not elaborate on this view in response to inquiries I made. Although they understood the value of compact farmland, they held on to the image of fragmented farms as part of such a collaborative scheme. I enquired if the Edun Youth Development Association were to expand the size of the farmland and the number of farmers what would happen. For EM, he opined: "You cannot have 50-acres of farmland at one spot [around here] …we can get farmland at Odo-Oba …also [at] Ajiwogbo and Olodan…that is where you can see farmland, for [such] land scheme". In agreement with LB, these farmers were suggesting that CBOs in towns and larger villages have to go farther in the hinterland to secure farmland.

The idea of a farm residence and field operations also arose during the interview at Edun village. Participant ED, a middle-aged farmer, whose idea of a farm settlement was closer to that of the state than that of EM, opined that there should be a rest house. However, I suggest that their notion of a rest house was similar to an indigenous farming hamlet. For instance, an adaption of the farming hamlet I discussed in Chapter 5. Another feature of a potential CFS was the practice of tillage. There was an intense engagement with these farmers on the art of heap making. This field art had direct influence on their spatial perception of space manageable by an individual. This suggests that the micro-geography of agricultural space management retained its importance in traditional agriculture (Atteh, 1980). Interestingly, this micro-geography reflected the dimension of cognitive development and personal skills of this age-old farming practice as EM employed several ephemeral maps to explain the art of heap making. I shall explore more of this mechanism of indigenous field practice with his sketch mapping of farmland in Chapter 7.

At Ejioku there was an idea of a self-help agricultural programme already embedded in the discourses of the Ejioku Youth Development Association (EYDA). The interviews on the notion of a CFS further challenged the mental image of the participants. Indeed, their particular idea of the CFS emerged over time as they articulated several themes, including the size of farm allotments, cropping system, tillage, infrastructure, and potential locations for a CFS. Since the EYDA intend to welcome other farmers beyond their neighbourhood, they had a mental map of allocating 4 to 5 acres (1.6 - 2.02 hectares) to their members, while 2 to 3 acres of land (0.8 - 1.2 hectares) was the proposed allocation for outsiders. EY, a businessman who was also involved in local politics, believed there should be preferences for the land donors or landowners in land allocation. In addition, EY remarked that a young person, new to the farming profession could easily handle and manage 2 acres of farmland. Hence, in their action "to define development in their own terms" (McEwan, 2019, 268), a constructive Otherness was apparent.

Interestingly, like EM at Edun village, EY at Ejioku town was also adept with the micro-geography of indigenous field practice. Hence, EY observed, "yam requires more [heap] space while cassava does not require much space" (Interview, January 2021). In other words, the intended crop determined the local measure of heap making. For instance, "an acre of land will accommodate 1,200 heaps for yam but cassava production on the same acreage of farmland will accommodate more heaps". The cassava heaps, he remarked, are smaller. Heap-making was fundamental in spatial thinking of farm units for the participant.

In terms of infrastructure, there were varied perspectives for articulating residential and storage facilities. For instance, initially, he opined that the village housing of Elegbada could serve the purpose of accommodation. However, EY later remarked, "residences can still be introduced into the CFS because outsiders can stay over in such houses on the farm". He explained, "suppose they [outsiders] were on the farm from 6:00 am to 10:00 or 11:00 am", they could rest in the residences until afternoon "between 4:30 to 5:00 pm" (Interview, January 2021). These residences will have basic or essential facilities to cater for food and sleep. Thus, the outsider-farmer, he observed, can plan, for example, a 3-day on-farm, and 2-day off-farms in a 5-day working week. This view on residence in connection with farm routine reflected, as I have showed in Chapter 5 (Section 5.3), the indigenous concept of urban-rural migration.

Our conversations about the potential CFS reflected the issue of storage houses. EY observed the need for different stores to keep different crop produce. For instance, the preservation

of yam might require a separate place from cassava. He observed, "cassava could only be kept for a limited amount of time span" but "yam can be preserved from one season to another season" (Interview, January 2021). Hence, he seems to suggest separate storage of potatoes, maize, yam, and cassava. Alternatively, he opined, they could make use of a partitioned storehouse. Storage facilities was vital in the mental image of the CFS he developed. Participant EY who mobilised the Ejioku Youth Development Association (EYDA) concerning the CFS later developed a geographic image of a potential CFS based on a potential farmland at Elegbada, which I explored in Chapter 7.

A gendered dimension to this conceptualisation of the CFS revealed differences and similarities between a female participant, LH, and the previous participants who were all men. For example, LH argued that the CFS should "be located far away from the urban area" (Interview, January 2021). She, an executive member of the Lalupon Community Development Association, was very concerned with the environmental pollution at the Lalupon Farm Settlement. Hence, the environmental geography of the area was prime in her mental maps, and it reverberated in our conversations. Participant LH, a middle-aged shopkeeper, did not attach any calculative measure to her perception of potential farmland or a land allotment. For instance, she thought one or two plots of land were sufficient in a potential community-owned farm but she did not suggest what the size of the plot would be. Unlike the male participants who all considered at least two acres as profitable, she thought the 'plot' was sufficient to meet the needs of the individual farmer.

In addition, she observed that fencing the farm's perimeter was very important to keep herdsmen away while also employing dialogue. In contrast, the men all considered appealing to state and local governments to warn against pastoralist incursions. She drew on her lived experience of Lalupon Farm Settlement to describe the geographic extent of a fence installation in the past. Indeed, she cited locations across the boundary of the farm settlement where the remains of the fence still exist. Implicitly, she provided a descriptive geography of the Lalupon farm settlement. Again, she emphasised the need for an assembly hall or a collective place (auditorium) on the CFS "where all farmers can come to meet one another" (Interview, January 2021).

In addition, she observed that, unlike the government settlement scheme where the government agricultural ministry decides or influences what crops to cultivate, there would be varieties of crops cultivated. Then I asked her what sought of varieties of crops she meant. Her response was primarily vegetable crops. Thus, it was apparent that the image of a CFS she had was much like a

vegetable farm. Besides, unlike the men, she firmly believed that farm produce could be disposed of or sold in the local market. In contrast, the male participants thought government assistance through a marketing board was necessary to dispose their agricultural produce. Nevertheless, like most male participants she thought simple residential facilities were important for the success of any CFS.

Table 6.1 Imaginaries of Community Farm Settlement amongst selected participants in Northeastern Ibadan Rural Hinterland, 2020.

Participant	LB	LH	EM	EY
Spatial Structure	At Lalupon	At Lalupon	At Edun	At Ejioku
Size of Land	10 Acres (Livestock Only); 50 Acres (Livestock and Crop Farming)	-	30 acres	30-40 acres
Land Allocation	2-3 acres	1-2 Plots	5 acres	4-5 acres; 2-3 acres
Infrastructure	Office, Borehole, Silo	Fencing	-	Store
Residence	-	1 Room Flatlet	Resthouse	Existing Village, Resthouse
Number of Settlers/ Farmers	5-25	-	6	15
Farming System	Livestock, Crop	Varieties of Crops (Vegetables)	Crop	Crop and Fishery

Source: Fieldwork, 2020

Spatial Imaginary of an Agricultural Landscape: A Hybridised Logic of Settlement Scheme

The spatial perceptions exhibited by participants reflected a reasoning consequent of cultural economic encounter between state-sanctioned neoliberal modernity and the continued relevance of traditional agriculture. The eagerness of CBOs for agricultural development, their idea of field practices and local geopolitics influenced their conceptual images of the propositional spatialities of the CFS. There was eagerness for development by the CBOs, which influenced their mental images of the CFS evident in the varying responses on the idea of a compact land, the spatial extent of farmland and the effect of land fragmentation. In a larger CBO like Lalupon CDA, responses are varied. For example, participant LM believed a crucial need for a successful CFS, apart from the challenge of divisive local partisan politics, was the provision of infrastructure.

Good infrastructure, LM opined, "can make farming attractive even if the location of the farmland was a faraway place". Thereafter, he supported the idea of the CFS because "Ladoja's (Oyo State Governor, 2003-2007) has a private farm at a faraway location [in this rural hinterland] which has almost any conceivable infrastructural facility in the city; such that he can spend a week there without visiting the city [for any supplies]" (Interview, November 2020). He was indecisive of farm size. Infrastructural provision determined his perception of success of any size of the biophysical space committed to such collaborative farming. On the other hand, LB and LH who were members of the CBO executive at Lalupon like LM differed in their ideas of the CFS. The former thought 50 acres of land was sufficient, while the latter only gave a gestural-descriptive idea of the size of land suitable for the community-owned farm she envisioned. Therefore, there was diverse envisioning of this economic spatiality amongst participants.

In contrast, in a smaller CBO like Ejioku CDA, there was a more united perspective to the spatial envisioning of the CFS. For example, EY opined, "many youths are interested in farming…some claimed they have family land 5 or 6 acres….people who want to go into farming have no money; those with money have no land" (Interview, December 2020). The potential land at Ejioku was inadequate while more members showed interest in farming if financial or land opportunities were available. Indeed, some participants, who later took part in the transect walk, narrated an earlier discussion they had with an indigene of the town, who was a banker in Ibadan. The banker, who was a patron of the CDA, had advised them to avoid land fragmentation in their desire to create a youth farm to ensure a better accountability of the resources – land, finance, machinery and so on. Hence, the CBO was more interested in securing farmland in neighbouring villages for a larger number of its members. There was an embedding of the notion of compact farmland often highlighted by scientific agriculture in their mental images.

However, several participants in the CBOs did not see land fragmentation as irrational but as a response to matters of land availability. As EM, at Edun village observed, avoiding fragmented farming was a function of securing continuous farmland in remoter areas of the hinterland. Therefore, compact farmland was a function of access to land rather than strictly a spatial logic of ordering. Almost all participants held the view that farm size ought to be smaller than that prescribed in the government scheme. The participants consistently conceived varying amounts of smaller measures of land as profitable for an individual farmer. As I have shown above, this was a sharp contrast to the land allocation regulation of the government farm settlements. The

modernist notion of an economic farm size for an individual farmer to make a profitable economic return was irrelevant to these citizens.

The idea of field agronomic practice imagined also influenced the conceptual images of the CFS. These farmers relied on the micro-geography of indigenous agricultural space management based on the age-old farming practice. Interestingly, the logic of spatial ordering is not essentially a modernist monopoly. The discourse of heap making generally signalled an envisioning of smaller size farms. For example, EY did not envision more than 5 acres (2 hectares) for any allottees in a collaborated farming scheme. The farmers were particular as regards the spatial thinking of heap making, on which was constructed the image of micro agricultural spaces. However, it was an art, not a rigid science, fixed into a modernising logic.

In contrast, the use of mechanisation suggested the imagining of larger farm size. For example, ED at Edun village remarked, "only large-scale farmers need tractors and only two or three farmers in Edun village will be in that rank to need machines". In contrast, EY at Ejioku, who felt the indigenous art of heap making was still essential to farmers, revealed that mechanisation was undoubtedly a welcome idea on the imagined CFS. Nonetheless, there was no idea of a particular economic plant. For instance, yam and cassava are the principal crops mentioned, however, it was only at Odo-Oba that some participants referred to the cultivation of Oil palm. No crop had an exclusive label of an economic plant.

Local geopolitics also influenced the spatial picturing of a CFS. Locational, residential, and environmental concerns were key in the farm layouts revealed from their conceptual mappings. The envisioned spatial extent of the CFS reflected obvious differentiation in subaltern groups. For instance, the differences between the thousand acres at Ado-Awaye and twenty to fifty acres of the ordinary citizens of Northeastern Ibadan rural hinterland was influenced by their political outlook, regardless of the effect of proximity to the state capital. In addition, the politics of the subaltern classes influenced the imagination of implementing agricultural projects. For example, the influential chieftains in the Oke-Ogun area could approach the governing class with some level of confidence and expect some form of response. In contrast, CBOs in the northeastern Ibadan hinterland were generally subservient to the local political and traditional leadership class. However, there are also divergent views between the two areas of Ibadan hinterland and Oke-Ogun on crop cultivation. Hence, the perception and envisioning of CFS amongst local actors are diverse.

Again, the geographical proximity to a state-owned farm settlement, I suggest, also influenced the spatial conception of the CFS. For example, the Lalupon farm settlement is the smallest, while the Iseyin-Ipapo farm settlement, near Ado-Awaye, is the third largest settlement in Oyo State (See Table 5.1). Hence, participants in Northeastern Ibadan hinterland did not conceive a farmland size bigger than twenty hectares (See Table 6.1). On the other hand, the monarch and CBO at Ado-Awaye pictured a farming landscape between four hundred and five thousand hectares. This idea of large-scale farming at Ado-Awaye, not necessarily alien to traditional agrarian practices (Clarke, 1972, 260), but reflected the discursive legacies of modernist agricultural rationality. These combinations of the logic of modernity and subaltern knowledge mirrored a hybrid cognitive paradigm in the envisioning of economic space.

Reinterpreting the agricultural settlement scheme has become important as the subnational state emphasised the reinvention of the settlement scheme through the neoliberal farm block. If private investors are meant to run the redesigned old scheme and new schemes, why should not citizens and communities run their own scheme, several participants questioned. Hence, the mental images of state-owned farm settlement were influential in the hybridised logic of CFS held by these participants at Ado-Awaye and northeastern Ibadan hinterland. Although the verbal communication of the cognitive representation of the geographic frame of these varied potential CFS was deeply interesting, it remained vague in spatial comprehension. Thus, could these participants visually clarify this verbal essentialisation of their CFS imaginations?

6.4 Conclusion: Discursive Representations in Local Geographies

In this chapter, I have argued that these different agricultural logics – revealed in state representations and subaltern representations – interact in the local geographies of Northeastern Ibadan rural hinterland. There are two key arguments in this interaction and reproduction of agricultural landscape representations in this local geography. First, there are levels of spatial information displaying the knowledge of the local geographies of Northeast Ibadan hinterland as authoritative, normative and instrumental. Maps of the central and local states portray authoritative knowledges that reproduce the rationally-ordered landscapes. These state cartographic narratives promote the visibility of the natural and cultural landscape without explicit reflection of agricultural development, either state or subaltern agriculture. These state maps have offered gaps and opportunities of anti-political economic imaginations of subaltern agriculture that neoliberal

visual discourses exploit. Hence, the empowered rhetoric of neoliberal agricultural imaginary magnifies an inevitable normative path to modern development. Besides, the gap in up-to-date visualisation of space initiates an agricultural politics of visibility associated with the political silence of previous social welfarist-type agricultural projects that remained in the subaltern imagination of the landscape. In contrast, the entrenched visualised logic of social welfarist development continues to inform developmental visions in Ibadan hinterlands. However, this developmental vision does not make explicit visibility of agriculture.

Second, subaltern classes are contesting these neoliberal imaginaries and renegotiating agricultural subjectivity. On one hand, counter-narratives of the Lalupon settlement scheme revealed the actual realities of state-space, different from the knowledge claims of state visual imaginaries. These cognitive maps contest the misinformation and disinformation evident in state promotional maps. On the other hand, subaltern classes reinterpreted and reimagined the scheme through hybridised forms of community-owned farm settlement schemes. While they drew on modernist logic in some instances, several spatial thoughts revealed modification of indigenous agrarian practices as a framework for their idea of the CFS. Thus, local spatial knowledge revealed counter-imaginative geographies and alternative imaginations of the settlement scheme.

Accomplishing the organisation and utilising of space for agricultural production often involves individual and social agencies, as evident in the notion of *Agbe Oko d'Oko* [farm settlement]. This subaltern agro-spatial framework, in spite of evident challenges, reverberates elsewhere in subaltern communities of contemporary post-colonial world, emphasising the continuous evolution of alternative modernities but remains oral imaginaries (Ashcroft, 2009; LaBelle, 2014). The notion of *Agbe Oko d'Oko* is an indigenous agricultural spatial thought, which emerged from the farm village practice of Yorùbá urbanism, employed as an interpretative framework to understand the postwar modernist settlement scheme. First, there is an agricultural production centre at the outskirt of the urban centre. Nonetheless, I have shown in Chapter 4 that there was a gradual obscuring of the indigenous urban-hinterland perception in official cartography. Again, it is an urban-hinterland relation, which ensures cultural development. This cultural development is characterised with a spatial binary in everyday life that does not evoke modernist dichotomies (Danby, 2009; Simić, 1976). However, I discussed in Chapters 4 and 5 the changes wrought on these traditional view in the postwar period amongst the younger generations. In addition, in moments of cultural economic encounter, this spatial thinking remains an

interpretative framework of the agricultural space. Characterised by individual agency, social actions, and dimensions of adaptive mechanism, the notion in such moments frames the emergence of locally defined development in local geographies. In Chapter 5, I have argued that this subaltern framing of agricultural modernity emerged in the postwar period as an encounter of Western-educated Yorùbás with modernisation highlighting dynamism and innovations (Robinson, 2006). Hence, a reframing of indigenous spatial thought influences subalterns' envisioning of the CFS. Renne (1997) has aptly described this as 'traditional modernity'. Unlike the one-dimensional rationality of neoliberal modernity, the frame reveals a plural logic.

This was evident in Northeastern Ibadan, where participants desired a CFS reflecting ideas of *Agbe Oko d'Oko* [farm settlement] that have, as many believed, declined in the state-owned settlement scheme. This has become an impetus for the counter and alternative narratives to repel the disinformation of neoliberal vision of the settlement scheme. This agricultural spatial thought as a cultural frame revises and reinterprets the ideas of the settlement scheme. As a response to the neoliberal developmental problem, it aligns with findings in South America. For example, Fabricant (2012, 107) notes the notion of *Ayllu* as "an imagined cartography for respatializing agricultural production". This indigenous Bolivian agrarian imaginary emerged as a "new agricultural model that could anticipate an alternative economic structure to large-scale production" (Fabricant, 2012, 106). These emerging cultural frames articulate "the spatiality of political identities" in local development in post-colonial states (Robinson, 2008, 266).

However, these imaginaries emerge not as grand schemes but aspirations adopting useful ideas from modernity while retaining the use of space within the limits of subaltern expertise. As Ashcroft (2009, 84) argues, "This does not make them extensions of modernity, but new culturally-situated forms of modernisation. Modernity is not so much adopted as adapted and re-created, and increasingly, modernities may adopt other alternative modernities". Similarly, McEwan (2019, 270) notes, "These are not outcomes of alternative modernities, but vernaculars, just as Euro-modernity is a vernacular" (McEwan 2019, 270). "In paying attention to these vernaculars as expressions of agency within modernity and development", I contend that there can be a postcolonial re-writing of hegemonic spatial knowledge production "that constructs" other knowledge systems "as removed and separate from trajectories of [modern] development" (*Ibid*, 270). The CFS remains a notion conceivable without the complex technicalities of development

expertise and modernist economic planners. However, these aspirational geographies remained largely a verbalisation.

Oral imaginaries of the subaltern agricultural knowledges confronts compelling arguments that are gradually but quickly advancing neoliberal thought as part of everyday spatial thinking (Harvey, 2005a). Oral imaginaries are futuristic expressions of spatial thought – sites of transformation – in the renegotiation of political subjectivity. I have shown, in this Chapter, the act of contest and renegotiation of agricultural subjectivity in local geographies is essentially through verbalisation of spatial perceptions. LaBelle (2014) contends that 'voicing' is a central medium in the negotiation of the self in relation to the social world. Vocality enables different forms of resistance and radical imagination in conversations. Indeed, Damodaran (2017) draws attention to the rise of a radical impulse to alternative futures through songs and music. Although deeply thought, these verbal imaginaries of development remain vague in spatial comprehension. There are inspiring but challenging nuances to the notion of *Agbe Oko d'Oko* [farm settlement] in its diverse oral forms. Nonetheless, oral practices cannot vie with cartographic artefacts in reproducing precise ideas of agricultural space.

Subaltern imaginaries are key discourses to re-negotiate rural developmental visions but documented visual spatialisation can aid the awareness of alternative and locally defined insights to material development. The visual documentation of these subaltern imaginaries will encourage the further exploration of alternative ideas in face of socio-ecological challenges. As Rambaldi (2005, 6) observes, "visual language…provides additional cues to memory and facilitates mental spatial knowledge processing". For example, there is a need for recording and archiving of local spatial knowledge on the CFS through citizen-based mapping. Besides, integrating these local spatial knowledges with technical mapping offers a persuasive record of self-defined developmental visions on the agricultural landscape. Therefore, I contend that an alternative world, of the subaltern imagination of the CFS, in the form of topographic maps can also contribute to a "way of counterpoint to the neoliberal logic" (Harvey, 2005a, 184).

CHAPTER 7 SUBALTERN CARTOGRAPHY AND THE AGRICULTURAL LANDSCAPE

7.1 Introduction

The visualisation of space was a significant way for silenced voices to engage politically in the post-colonial state. This was particularly so where verbal communication of subaltern ideas and concepts remained vague. The transformation of verbalisations into visual images engenders clarity and meaning of ideas and concepts. This thesis emphasises the importance of visual complements to deeply thought agrarian ideas in the verbal form (Marshall, 2007; Mitchell et al, 2011). In addition, visual media unveiled at a more transformative dimension the diverse spatialities embedded in these subaltern knowledges in a socially visible world. Besides, the examination of lived experiences and imaginations of the social space was crucial to re-subjectivizing the Other on the agricultural landscape (Kelly, 2013; Holloway, 2018). Therefore, how do participants respond to the state-sanctioned neoliberal discourses deploying visual forms of counter-narrative and alternative visions?

This chapter explored the possibilities of citizen mapping in the renegotiation of political subjectivity. I argue that social cartography deployed as a form of counter-power can contest, rework and renegotiate the production of the agricultural space. The interaction of cartographic history, post-colonial landscape and the agricultural settlement scheme draws attention to the notions of spatial cognition, geographical imagination and political subjectivity. Using these notions, I engaged local spatial knowledge to explore the everyday geographies of the agricultural landscape, the counter geographies of state-space and the aspirational geographies of a community-based organisation in Northeastern Ibadan hinterland. In this chapter, the notion of spatial cognition involves the mental or cognitive image of agricultural space (Hart and Moore, 1973). Again, the notion of geographical imagination emphasises the existing images of space or spatial images fashioned outside the actual reality (Cosgrove, 2003b; Gregory, 1994). Likewise, the notion of political subjectivity highlights the expression of personal attitudes and emotions towards events, ideas and objects, for instance, the authoritative landscape of Northeast Ibadan hinterland, the condition of the state-owned farm settlement and the clarifying of the verbalised Community-owned Farm Settlement (CFS) (Massey, 1994; Pile, 1997).

In this chapter, the case of citizen-based mapping in Northeastern Ibadan rural hinterland illustrates these interconnected themes and concepts in the unveiling of the alternative spatiality

of the CFS. In the second section, participants externalised their spatial cognition of existing farm villages on paper (Kitchin, 1994; Montello, 2002). Mental maps reflected on printed state maps conveyed the reconstructed spatial thought in response to the map silence of scientific cartography. I engaged in the third section the visualisation of the counter-narratives to the visualisations of efficient state-owned agricultural landscapes (Ott and Aoki, 2004). I argue that citizens in state agricultural space can visually express their imaginative counter-geographies articulated verbally in Chapter 6. The fourth section explored the envisioned alternative futures on the agricultural landscape by visualising the CFS agricultural imagination (Sletto, 2009). I contend that the visualisation of aspirational concerns of a CFS clarifies an alternative narrative of locally defined agricultural development. Using freehand drawing, participatory citizen maps served as visual forms of counter-narrative and alternative imaginations of the agricultural settlement scheme, which revealed diverse spatial perceptions of the agricultural landscape.

7.2 Everyday Geographies of the Agricultural Landscape in North-Eastern Ibadan Rural Hinterland

Discussion on CFS projects drew attention to potential locations in verbalised knowledge of Northeastern Ibadan rural landscape. Some participants held mental images of suitable places. For instance, participant EM referred to Odo-Oba and Olodan during our discussion. Other participants had specific images of places as potential sites. For example, participant EY, a young businessman and local politician, initially spoke about Yadiran but later, in consultation with other members of the EYDA, decided on the village of Elegbada. In contrast, some participants made qualitative statements concerning potential locations on the landscape. For instance, participant LH referred to "places farther away" in the hinterland or "far from the town". The everyday spatial experience of existing farm villages influenced participants' imaginings of the agricultural landscape.

This conception of space had an effect on their imagination for local development and collaborative farming. For example, it unveiled locational preferences and additional explanations, which had not, arose during the verbalised aspirational geographies. Therefore, I argue that the communicative power of visualisation in mental maps externalise this local spatial knowledge of everyday geographies. By writing and marking directly on printed paper maps, citizens share in the (re)production of geographical space (Del Casino and Hanna, 2006). This local spatial awareness revealed locational and attribute information of the farm villages that constitute the

agricultural landscape. Hence, this citizen-based (re)production of spatial representations, through memory recall, provides a synoptic view of environmental cognition of the agrarian landscape in Northeastern Ibadan hinterland.

7.2.1 Toponymic Geographies of Farm-villages on the Agricultural Landscape

The mapping task of labelling place names from memory focused on existing farm villages that constitute the farming landscape. Descriptive place names were the main cognitive knowledge employed in the (re)production of the geographical world on the base maps. As Jordan (2016, 41) observes, "Landscape and regional concepts are mental constructs marked by a name". The toponyms of the farm villages as the basic geographic descriptor revealed differences amongst the participants in the towns. At Lalupon, participants depicted 13 villages serving as farms to the town. Some village place names appeared more frequently on the maps. For instance, Odo-Oba village appeared on all three maps from Lalupon. All participants referred to oil palm cultivation at Odo-Oba. Again, Akinsawe and Okoseru appeared on two of the three mental maps (See Fig.7.1. and Fig.7.3). Both villages produce staple crops such as maize. At Erunmu, participants depicted 21 villages on the three maps. The most frequent village place name on these maps was Ayede. In addition, Alugbo and Koloko appeared on two of the three mental maps. These villages produce maize and cassava.

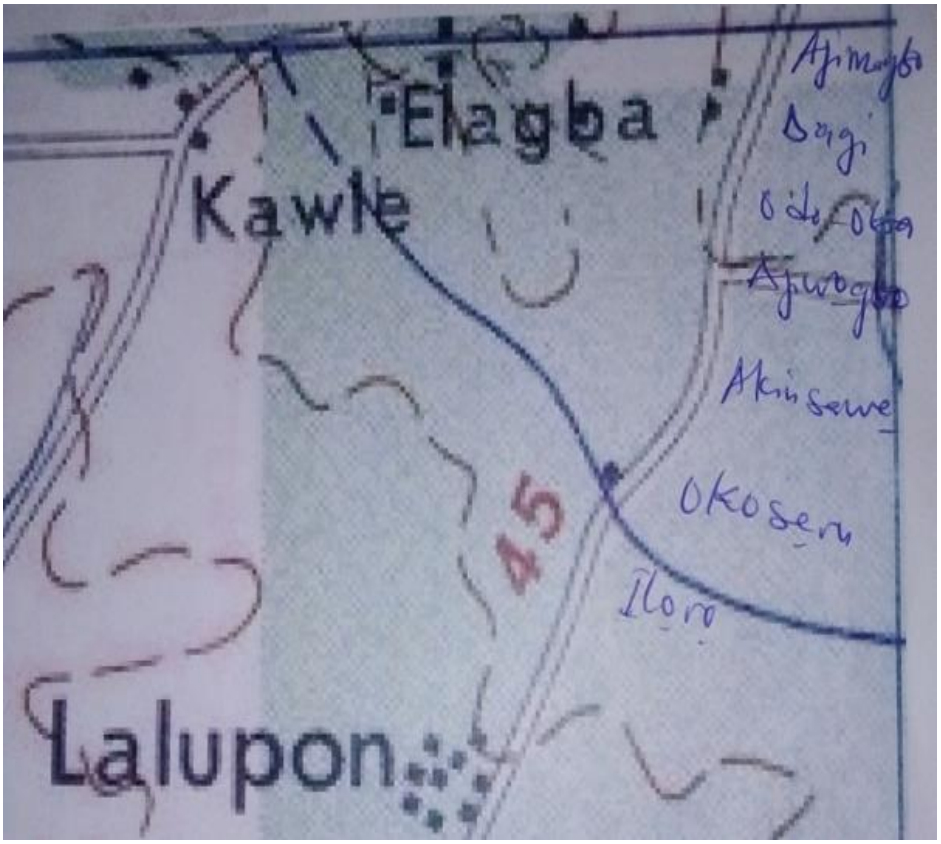


Fig.7.1 Mental Map of Participant LB from Lalupon (Source: Fieldwork, 2020)

Some participants expressed their geographical knowledge by first providing verbal cartographies before positioning them on paper. These processes of memory recall generated and communicated more place names (Mark et al 1999, 756) but a challenging task to locate or place them on the base map. For example, at Ejioku, a participant preferred to list (but later wrote on paper) the place names of the villages. Then he positioned the villages on the base map. Similarly, at Erunmu another participant, who was a tailor and farmer, eagerly communicated his geographic knowledge of the farming landscape by listing twenty-three farm villages. However, he could not locate them on the base map without assistance. As I have shown in Chapter 5, toponyms remained the cognitive framework for spatial memory amongst subaltern groups.

There are gender similarities and differences in the spatiality of farm villages on the participants' maps. There are similarities of place names on the maps. For instance, at Lalupon, the toponymic geography of the farm villages depicted by a male participant (Fig.7.1) revealed three villages found on the mental map of women participants (Fig.7.2). These are Odo-Oba, Akinsawe and Okoseru. However, there were differences in the positioning of the place names on

the base maps. Usually, the male participants thoughtfully positioned the farm-village toponyms on the base map. They engaged the depicted landscape of the map to construct their spatial perception of the farming landscape. Therefore, they made apparent their spatial abilities in the visual-spatial task.



Fig.7.2 Mental Map of Women Participants from Lalupon (Source: Fieldwork, 2020)

In contrast, the women expressed the village place names verbally rather than recording or writing directly on the paper map. They often pointed out where they felt the village place names should be on the base map. It was an engagement with spatial awareness but not directly with the base map. This revealed a gender disparity in basic literacy in rural hinterlands but not a lack of spatial intelligence. On the other hand, all the women mapped the village place names used currently by farmers without referring to the older indigenous farm villages like some male participants. Indeed, from their discussion on farm villages, interview data suggest that they had emotive ties with these places. For instance, they made specific references to crops and farmers concerning supplies to the local markets. Thus, their emotional relations infused these places with

more attribute information than the men's spatial knowledge. Therefore, the women did better in their spatial perception of the geographical space through their verbalisation of features (Rieger, 1996).



Fig.7.3 Akinsawe Village (Source: Author, 2020)

Several women expressed their local spatial knowledge of the landscape as part of a group. The three-woman group at Lalupon that mapped the farm villages shared the same mental image of the landscape (Austin, 1998; Downs and Stea, 1973). However, some women shared their local spatial knowledge as part of a male group. For instance, at Erunmu, a group that included a woman participant produced one of the mental maps. Again, toponymic geographies generated by the women reflected their personal experiences of farmers and their wayfinding skills. For example, at Lalupon, a particular village that generated much discussion and spatial speculation amongst the women was Gbanla (Fig.7.2).

Their knowledge of this farm village was initially associated with agricultural products and the farmers working there. Likewise, the recall and positioning of the village involved a relative association with another location known as 'Iwaju Academy'. Participant LH, who was an executive member of the Lalupon Community Development Association (LCDA), first recalled

the site of the village from her memory. However, she had to request the assistance of the two other women to retrieve the village place-name from their lived experiences. One of these women, a young trader, did a mental and spatial re-orientation of the area and the farmers working in this village before they recalled the place name of the village. Thus, it took the lived experiences, wayfinding skills related to another geographical feature, and the knowledge of farmers working at the village to recall the toponym of the farm village.

7.2.2 Spatial Relations on the Agricultural Landscape

The toponymic geographies of the farm villages reflected the spatial awareness of the participants. This basic geographic identity of space imbued locational information on direction and distance. There are varied directions of the cluster of villages on the mental maps produced at Lalupon. For instance, at Lalupon, one participant's map showed all the farm villages only to the west of the town. In contrast, the two other participants' mental maps depicted farm villages only in the northeastern direction (See Fig.7.1). As Tversky (1981) have shown that ideas of perceptual organisation can distort judgments of spatial relations. In addition, there was the varied direction of the same village on different base maps. For example, the location of Odo-Oba village was both to the west and to the northeast of Lalupon on the maps. On one map, the placement of Odo-Oba village was west of the Lalupon near Oluwo village. The two other mental maps positioned it to the northeast; participant LB in Figure 1 situated the village of Odo-Oba towards the east nearer to Ajiwogbo village (See Fig.7.4). Several participants were more interactive with geographical place names, but they positioned the place name labels arbitrarily, showing the uncertainty of these locations in their mental images (Boschmann and Cubbon, 2014).



Fig.7.4 The Signpost of Ajiwogbo Village (Source: Author, 2020)

This difference in the locational knowledge of participants was also evident at Erunmu. For example, the farm villages of Erunmu appeared in an eastern direction on one map. In contrast, two other mental maps portrayed these farming villages to both the west and east. A participant, who was a middle-aged motor driver, marked one of these two maps, highlighting the view that people with exploratory experience has superior direction judgement (Fig.7.5). As Murray and Spencer (1979, 385) contend, "that individuals differ in the extent to which their lives have required them to develop cognitive mapping skills, and that high geographical mobility is likely to be one reason for developing these skills". Similarly, a participant placed Ayede near Erunmu to the west of the town nearer to Koloko. Two participants located the village of Ayede towards the east of Erunmu town.

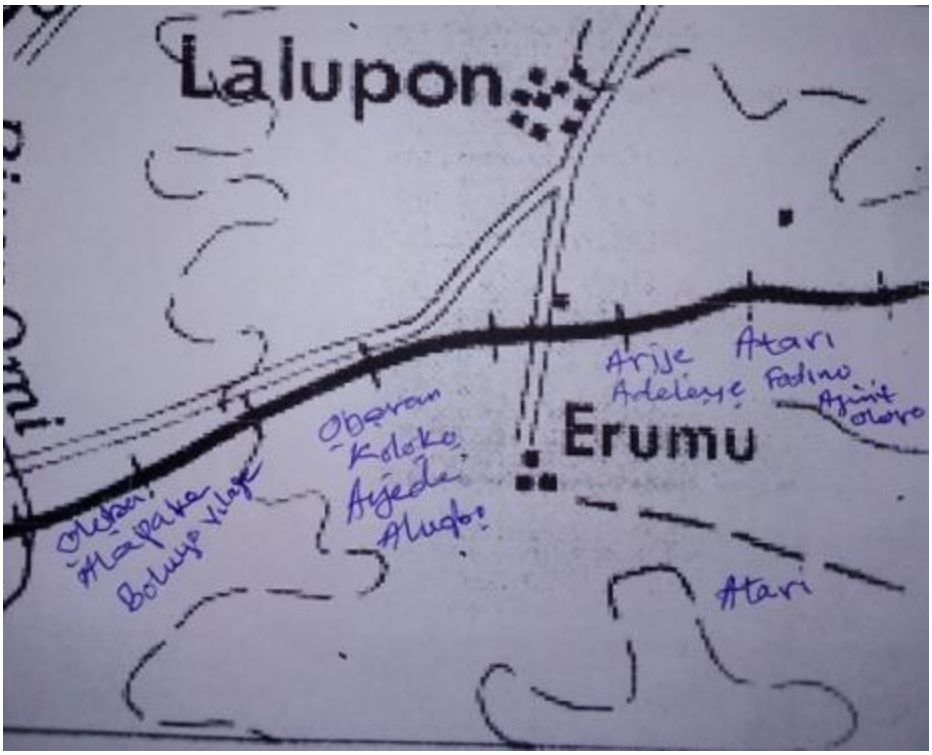


Fig.7.5 Mental Map of a Participant from Erunmu (Source: Fieldwork, 2020)

There was a repositioning of villages in response to the visualised landscape in other geographical mental maps. For example, Participant LB, a young technician, remarked as he viewed a mental map I had collected earlier from another participant that "the positioning of some of the farm villages was wrong" (Interview, November 2020). He contends that this mental map had placed several villages in a western direction. Thus, participant LB gave the impression of recording a more accurate direction in Fig.7.1. The result was those farm villages positioned in a northeastern direction, unlike the western direction in the other participant's mental map. Interestingly, the only farm village he re-positioned or re-directed based on his earlier reflective remark was Odo-Oba. Other farm villages depicted on his mental map did not appear in the other participant's mental map. The main road, I suggest, acted as a bias in his spatial reasoning of spatial relationship through the visual prompt of the base map (Montello et al, 2018). Thus, there was a clear difference in the mental image of the agrarian landscape presented by both participants.

The idea of direction was evident in verbal descriptions later transferred to the base maps. These maps showed the relative interconnection of places on the landscape. For instance, the group of women participants positioned the aforementioned, Gbanla village through another place known as 'Iwaju Academy' (Fig.7.2). Again, participants who prepared verbal maps with non-graphic

performance unveiled this sense of direction. For example, the participant at Erunmu who listed the 23 villages did so with descriptive geography that situated these villages in surrounding areas of the town. Using gestural performance, he implied a circular dispersion from his mental image. As Mark et al (1999) observe gestural performance often accompany verbal information when conveying spatial location. Nonetheless, translating this excellent performative mapping visually was a daunting task for the participant.

The notion of relative distance in local spatial knowledge was also evident in the positioning of village place names. For example, amongst the farm villages serving Lalupon depicted on the maps, Odo-Oba was the farthest, and Edun was the nearest. That Odo-Oba was farther away was very evident in all the mental maps. Thus, the seven villages in Fig. 7.1 starting with Iloro up to Ajimagbo revealed relative distances between the villages as well as between the villages and the town of Lalupon. A particular guide in depicting this mental image was the river and the road. Therefore, routes and landmarks (Montello et al, 2018) underpinned the construction of the geographical elements of this space.

Similarly, mental maps showing the landscape around Erunmu revealed the relative distance of settlements in the placement of toponyms. Indeed, the relative judgement of distance was from Erunmu town as the geographical landmark. Hence, participants organised the agricultural space around the town. As Mark et al (1999, 757) observe that once "one of the elements is a better landmark, then that organisation is asymmetric". For example, a participant organised the landscape east of Erunmu with four villages. These revealed distorted distances between Ayede and Oyindaola. Again, another participant placed a cluster of farm villages east and west of Erunmu (Fig.7.5). Thus, this spatial organisation affirmed the continuous locational conception of farm villages in subaltern perspectives from the indigenous worldview.

Likewise, participants' mappings that were initially written and verbal geographies of the agricultural landscape reflected the idea of distance. For example, participant EY, a local politician, at Ejioku listed the ten villages on paper according to their relative distance from the town, starting from Ariku to Akiokun (See Fig.7.6). Unlike participants who reckoned the agrarian status of these villages, the state cartographic map simply (re)presented them uniformly as villages. Hence, there were limits of visibility of these farm villages in these state maps when compared to the reiterative practices of spaces of everyday life that forms the basis of the spatial behaviour of participants. Similarly, the participant at Erunmu, who listed 23 villages, divided the villages into

two groups: twelve farthest villages and eleven closest farm villages to the town. Furthermore, the locational knowledge of women participants at Lalupon concerning Gbanla near Iwaju Academy involved a mental reckoning of distance. These villages displayed on these geographical mental maps also reflected attribute information – socio-spatial relations between these villages and towns.



Fig.7.6 Mental Map of Participant EY from Ejioku (Source: Fieldwork, 2020).

7.2.3 Socio-Spatial Relations on the Agricultural Landscape

Although toponymic geographies and their spatial properties were attributes of the landscape at a smaller spatial scale, these farm villages were spatial objects that reveal agrarian characteristics at a larger spatial scale. During the mental mapping exercises, several participants explained the importance of these villages and wanted me to visit these villages to attest to their agricultural activities. For instance, at Erunmu, a participant invited me to visit Oore village, where cashew planting was the main cultivation. Similarly, some participants at Lalupon thought I should visit farming hamlets along Iwo road and Odo-Oba village to give me an idea of farming around the rural hinterland. Oil palm production, they informed, continues around here (See Fig.7.7). I later

saw and met a group of women involved in palm oil milling near Ariku village. Several participants argued that, if supported with infrastructure, these agricultural products could serve the purpose of local development without relying on fossil revenue. They did not refer only to the current farming activities but highlighted the challenges of farming populations in these villages and the rest of the Northeast hinterland.



Fig.7.7 Oil Palm plantation along Odo-Oba Road (Source: Author, 2020)

Hence, there was a further exploration of the agrarian landscape to examine its physical and cultural attributes. These attributes were the broader socio-spatial background to the mental images of the agricultural landscape conveyed by participants. Accompanied by these mental maps, I conducted detailed studies of a few villages based on their frequency on the base maps, the ethnographic response of local aspirations and conversations on their accessibility with participants. This follow-up fieldwork examined the size and social conditions of the villages and

the field cropping method that demonstrate the role of local spatial knowledge in everyday agrarian practice. I contend that the geographical imaginations of the agricultural space displayed in the mental maps reflected the challenges of the farm-village culture in the contemporary post-colonial world. For example, several farm villages are turning into large residential villages. In addition, some residential villages with farming communities are declining in lateral and population growth. Indeed, economic stagnation, together with the demoralising conditions of several farm villages, urges a rethink of the organised farming scheme by CBOs as a way forward in local development. An important feature of the northeastern Ibadan rural hinterland was the variation in village geographies. For example, I examined the contrast between Edun and Odo-Oba below.

Village Landscapes

The village landscape in Fig.7.8 below depicts a remote village of the northeastern Ibadan hinterland. This is Odo-Oba village situated near the railway and almost at the confluence of the River Osun and its tributary, River Okoseru. It is seven kilometres northeast of Lalupon town. There are scattered buildings across the village interspaced with secondary forest. The dispersed pattern of the village suggests a larger physical size, but the cultural features, residential buildings, in particular, revealed a smaller spatial extent. For instance, as depicted on the map, derelict houses are evident everywhere. Bush had overrun many of these houses; while in contrast, there are very few new buildings (Fig.7.9). Cutting through this secondary bush and forest was the road linking the village with Ajiwogbo and Akinsawe villages. Similarly, villagers often rely on foot and head porterage on the earth roads and footpaths; motorbikes are the occasional mechanical transport around these villages. However, another means of transport to access the village was the railway portrayed on the map but was presently not functioning. The poor state of transportation, I suggest, contributed to the scanty population in the village.

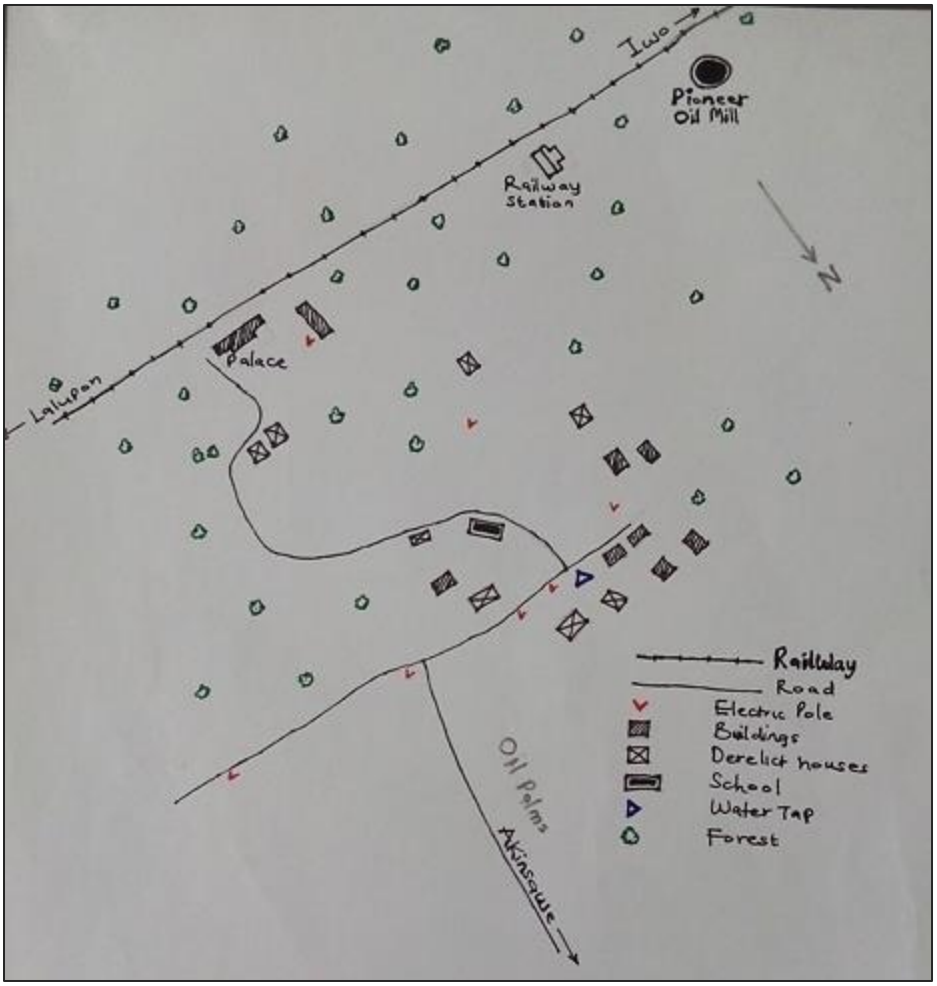


Fig.7.8 Mental Sketch Map of Odo-Oba village (Source: Author, 2020)



Fig.7.9 Odo-Oba village near the Village Water Tap (Source: Author, 2020)

However, the village scenery echoed a once-thriving past, but a declined present. For example, in the early 1950s, this village was the situation of one of the earliest Pioneer Oil Mill in Western Nigeria (See Fig.6.6) (CO, 1958a, 52). The village has declined over the decades; a material effect of the global shift of development rationality and the pervading political-economic corruption of the post-colonial governing class (Anugwom, 2020; Lawson, 2007). For instance, while discussing the moribund oil mill, one of the few young persons in the village drew attention to neglect by the local state. In addition, concerning village geography, he contends that: "Odo-Oba was once a big residential and farming settlement" (Interview, November 2020). The knowledge of the oil mill remained evident in this hinterland. For example, a villager at Iyana Offa gave me an initial description of the village and oil mill. Interview data from the village monarch showed that repeated efforts to revive the oil mill over the years had failed.

The present social condition and economic activity of farming reflected this economic decline and stagnation. For instance, there are few small maize farmlands visible near the village. However, much of the farmers still come from the nearby towns and the more extensive farmland located further from the earth roads. For example, one of the participants at the mapping exercise indicated the larger farms at Odo-Oba are in the 'bush'. In addition, several Oil palm plantations exist along the road to Odo-Oba from Sukuru and Akinsawe (Fig.7.7). Therefore, the frequency of this village on the geographical mental maps revealed historical and contemporary conditions of the agrarian economy in this hinterland. This village geography was "profoundly shaped by colonial pasts and geopolitical presents" (Robinson, 2003a, 400).

Fig. 7.10 shows the Edun village landscape southwest of the northeastern Ibadan hinterland. The village is one and a half kilometres west of Lalupon. Although a linear pattern of houses exists along the main village road linking Lalupon to the southeast and Bolowojaiye to the north, the village does consist of a nucleated pattern of buildings to the north – the centre of this rural settlement. While people are everywhere, there was also evidence of derelict houses. For instance, there were several crumbling buildings along the Bale's (Headman) house, as portrayed on the map, where I held interviews with a group of residents and farmers. However, there are several newly built houses (See Fig.7.11). As portrayed in Fig.7.10, a thriving building block industry in

the area affirmed this observation. In contrast to Odo-Oba, this village had an active population. The main road was a beehive of motorcycle transportation, usually from Lalupon. As depicted in Fig.7.10, along this village road are retail shops, and towards the north are mechanic sheds of welders and vulcanisers. Service work has become the dominant occupation of the younger residents.

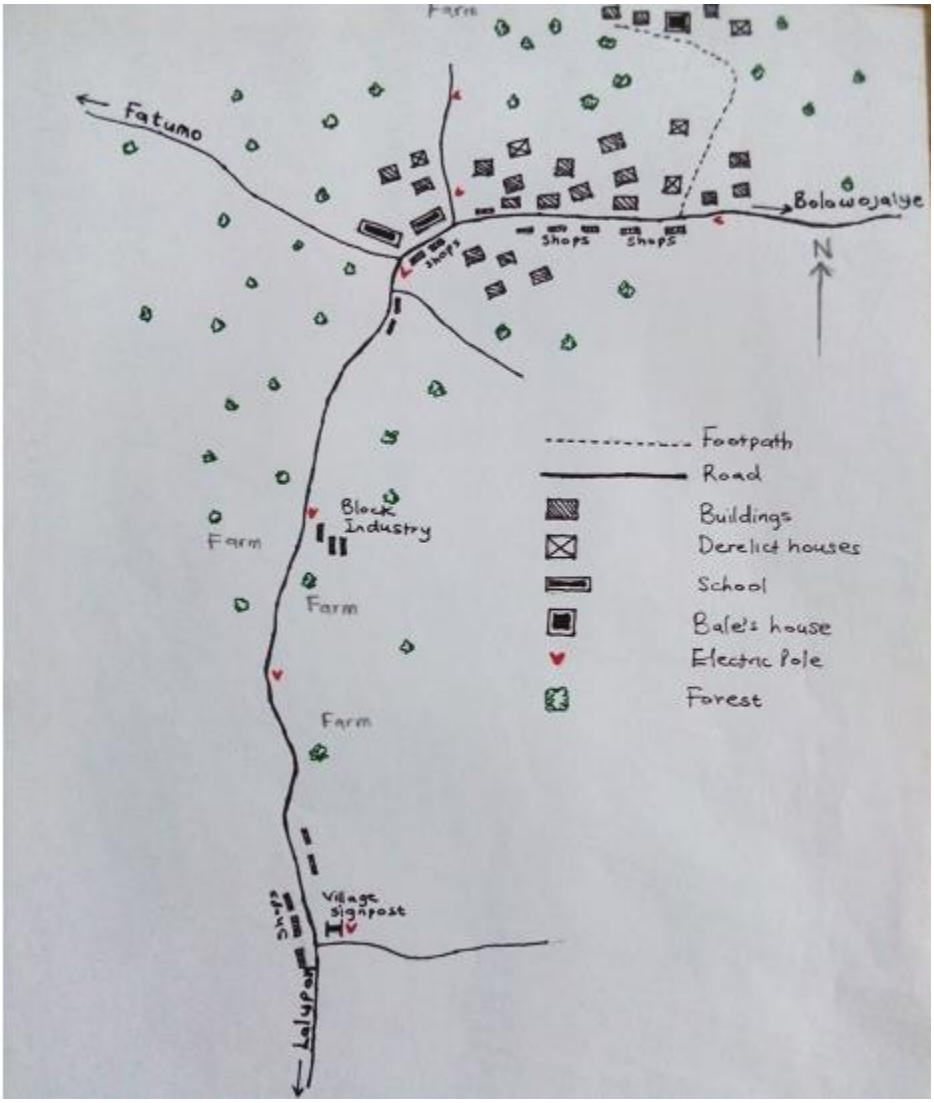


Fig.7.10 Mental Sketch Map of Edun Oguntola village (Source: Author, 2021)



Fig.7.11 Edun Oguntola village Signpost (Source: Author, 2021)

This spatial indication of rural occupation reinforces the views of de-peasantisation and de-agrarianisation in rural areas of Sub-Saharan Africa (Bryceson, 2000). This village identified as 'Aba Edun' in the 1960s, was a typical traditional farm village but currently an expanding residential village. For example, a resident of the village, participant EM, remarked "you cannot currently find a piece of land" more than five acres to farm in this village. I suggest that the mental image of non-agricultural scenery made Edun village appear only once in one of the mental maps. In that mental map, the participant, a resident of Lalupon, mentioned the village concerning farming activities in the colonial and early post-colonial periods. Edun village was then a farm of Lalupon. Nonetheless, there are still farming activities around the village. For instance, visible farmlands flanked the main road from Lalupon, as depicted on the map. Indeed, farming was still a very active profession amongst the older villagers. Around the outskirts of the village are farms and their farming hamlets.

Visual Thinking and Local Spatial Knowledge on the Farming Landscape

On the landscape, some farm villages are transforming into residential villages. These residential villages are rural settlements whose spatial structure have altered from the solely agrarian status but still had a farming community and farms at its outskirts. Edun village in Fig.7.10, I suggest, exemplified these villages. Even some of its residents address it as a 'town', (Fig.7.11), a

connotation to discard its agrarian origins. This reflected changes in land tenure regimes and associated agrarian practice. For instance, the culture of urban-based farmers has declined (Ojo, 1970), but there are still migrants into this rural hinterland from urban centres without agrarian connections. This was evident in several villages closer to the city of Ibadan.

The increase in the population and lateral growth has affected the spatiality of farming activities. For example, this spatiality was evident in the existence of only one type of farm farther away from the residential village. These farms seem like a reflection of pre-colonial practice as I have shown in Chapter 5. However, unlike in the pre-colonial or early colonial period, these current farms are mere farmlands radiating from Edun village though some were farm attached with farming hamlets. These farming hamlets were the basis of founding new farm villages in the past; however, the incentives to establish a full-fledged traditional farm village in the contemporary post-colonial world no longer exist as in the traditional, pre-colonial sense. In a dialogue with three farmers at Edun Oguntola village, I explored the use of local spatial knowledge in the field of cropping practice.

Participant EM explained: "let us say this is five acres of land", he gestured with his hands on the A4 paper I provided for his visualising of the farm. "Let assume that this paper is the land, this side [of the land], three acres will be for cassava. This part [of the land], the two acres, will be for yam" (Interview, December 2020). Looking at Fig.7.12 below, the visualised micro-geography of farmland suggests a spatiality concerned with subsistence agriculture but it had commercial undertones as the interview data revealed. This imaginary farmland drew attention to farm sizes and cropping patterns in the existing farms around the village farming areas. EM argued that the largest of these farms are not more than five acres of land. For example, he gestured towards a jungle behind the headman's house as the direction of one of the farms with such spatial extent. In addition, these 'subsistence farms' indicated the cropping pattern of the main crops grown. For example, the tuber crops remained the most important, even at the Odo-Oba farms.

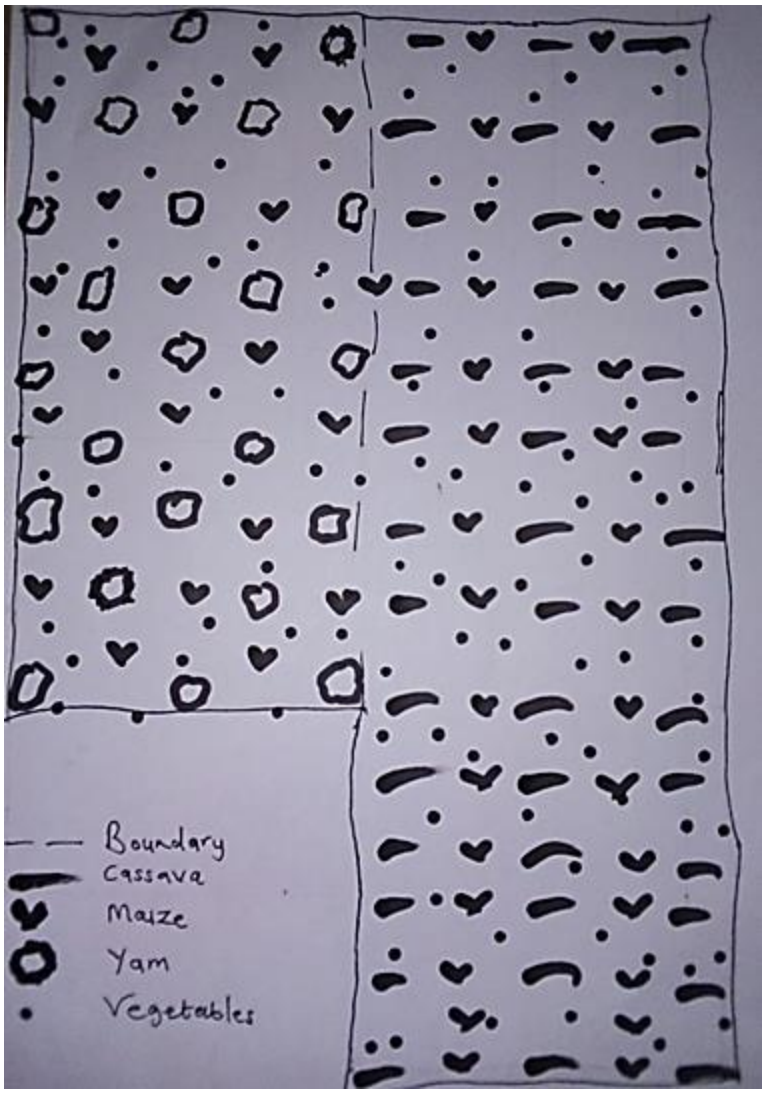


Fig.7.12 Mental Sketch Map of a five - acres Cropping Pattern (Source: Participant/Author, 2020)

The visualisation of the verbal description of this spatial cognitive knowledge on paper gave it a tangibility. Therefore, this map was a visual disclosure of the farmers' imagination of a thorough organisation of the subaltern farming space. In other residential villages such as Orile-Gbon, I observed similar spatial organisation of agricultural practice. Besides, it exhibited the personal and practical experiences of Participant EM who remarked that:

First thing to plant is cassava useful in making gari and maize you cannot find any farmer around here without this. On this farm, it is cassava and maize you will find on it. How long will maize use to grow; three months. After three months, cassava will spend a year. These are the two [crops] that can develop [quickly]. In the first year [you work]

second year, you harvest your crops. You can also plant yam but should not be much. Like [the use of] two acres for yam and you will provide it with a vast heap (Interview, December 2020).

Therefore, spatial thought was evident and applied to the partitioning of farmland, intercropping, and the art of heap making. These partitions on the farm reflected a subjective geometry. However, it was a geometry that "does not necessarily mean a precise angle symmetry or balance" (Irivwieri, 2010, 237). Hence, EM views affirmed the age-long agrarian cognitive mapping, as aforementioned in Chapter 6. In addition, EM described the art of heap-making using bodily performance to portray ephemeral maps. First, he described the making of a yam heap with his thigh and foot. He used the foot to draw lines on the ground. Then, in contrast, he described the smaller heap of the cassava and the inter-cropping of maize:

Look at me, as I open my thighs, as an example, beneath my legs is the heap. This is the foot of the heap to the right and the left. At the eye of the heap is cassava; at the foot is maize. So, I move my legs again, that is another heap. So, you can see how I repositioned it. Vegetables will grow on their own. [They will] scatter across the farmland. You can see it on my farm. Two acres will [be] reserved for yam but that is not how the field devoted to it [yam] will remain. This is a display of [the] five acres; [there would be] two for yam and three for cassava (Interview, December 2020).

The measure of the heap relied on an individual's bodily characteristics, mostly dependent on his height and legs. Hence, there was a difference between the heaps made by an adult and the adolescent. This exemplified the role of individual agency in the appearance of a farm. The art of heap making, as I have shown in Chapter 5, continues as a mechanism in the everyday spatial behaviour of the ordinary farmer. For example, the heap remains a means of assessing the size of the farm. Similarly, the heap continues as a measure of distance on farms. Again, the size of the heap remained a means of assessing aspects of field labour, sometimes the wage of a hired farm hand and the expected crop yield from a farm. Nonetheless, these farmers conceded that the mechanical tillage was useful to field practice. They insisted that the availability of funds and a secured market for their farm produce creates an opportunity for large-scale farm operations, which will require agricultural tractors. For instance, the participants' opined the visualised 5-acres (2 hectares) farm could employ agricultural machines in tillage operations. Hence, these farmers unveiled a plurality of spatial thought of the farmland based on socio-economic conditions

Indeed, this agro-geographical imaginary expressed on the mental sketch map was something EM looked forward to as he planned to resume intensive farming. EM had been farming before he crossed to another occupation. He had recently 'retired' from truck-haulage driving across the country. However, he complained about the lack of financial support from the state government. EM observed that: "this practice is found in Ogun State at Ikenne and even in Oyo State in the Oke-Ogun area. It is only here in Ibadan [hinterland] that I have not heard of it" (Interview, December 2020). It was such mental imagery of subsistence farming that state rationality seeks to label as merely cultural or vocation while advertising a transition to a business-like neoliberal reform of the agricultural space through different media such as visualisations.

Visualising the everyday geographies of the agrarian landscape drew attention to the subsumed but still existing farm villages, farm communities and field practices. Farm villages are still economic workspaces in the remote hinterland that remain rendered invisible because of the outdated cartographic product of state spatiality. Although digital platforms provide an all-encompassing view of the rural landscape, distinguishing farm villages in the rural space remain a human activity. For example, Google Earth and Open Street Map revealed Edun village but its transformation to a residential village are less visible from the view of human imagination (Wright, 2011).

Participants in the citizen mapping exercise have drawn attention to these farm villages, not just as human settlements captured in geometric representations of space. Rather, they unveiled from their memory recall a spatiality with emotive engagement to agri-food production and supply. Besides, they emphasised the problem of rural decline and neglect. This geographical exploration of rural economic decline on scientific maps might be considered a co-option of the subaltern into doing the work of the state (Crampton, 2010; Leszczynski, 2012). Nonetheless, an economic decline that was the talk of everyday geographies but made invisible in neoliberal visual narratives are also evident in state spaces. However, there are transgressions within the post-colonial body politic to this disinformation embedded in the state logic of visual rationality that distorts the realities of the agricultural landscape.

7.3. Counter-Geographies of the Government Farm Settlement Scheme

I argue that the visualisation of space through geographical mental maps is a complementary form of counter-imaginative practice. This visualised form of counter-narrative revealed the realities of the state-space and envisioned the subjectivities of farm settlers differently from the single neoliberal narrative of state cartographies (Ott and Aoki, 2004; Probyn, 2003). As I have shown in Chapter 6, farmers verbally contested the singularity of the neoliberal agricultural narrative (Castellanet and Diepart, 2015). However, the employment of visual image gives a concrete, tangible form to these verbalised contests of hegemonic structuring of the popular imagination by neoliberal cartographic fantasies (Gregory, 1994). For example, this visual form articulated matters about compact farmland, farm sizes, environmental care and the social welfarist model of the settlement scheme. Conversely, during this process of contesting state-sanctioned neoliberal narrative, there was a restructuring of agricultural subjectivities. Consequently, this counter-imaginative practice involved a double articulation of the identity of place and the construction of subjectivity (Massey, 1994). As a result, graphical counter visions of agrarian citizenship form part of an ongoing discourse to contest the unspoken cultural assumptions of state-sanctioned neoliberal agricultural reforms.

7.3.1 Lalupon Farm Settlement – Participant LB

The researcher solicited Fig.7.13 during the physical mapping exercise clarifying the verbal communication of Participant LB. Everyday farm work highlighted place-based knowledge of the farm settlement in Fig.7.13 while drawing attention to an imagined future (Beckert, 2011; Eyles, 1989). These everyday farm tasks of LB at Lalupon Farm Settlement guided the visual (re)production of the lived reality of the landscape. The participant was involved in fish and crop farming but also did some craftwork in the town. Hence, his everyday tasks involved daily movement on the roads to these specific sites. LB revealed considerable spatial abilities during the visual-spatial task. For example, LB showed dexterity in visualising and translating spatial conceptions into visible form. The interview data suggested he was well acquainted with technical maps and plans. Indeed, LB, as I learnt later, had a technical education.

Although the participant had good drawing skills he did not employ any marginal information such as title, scale or legend on the map. The participant skillfully employed graphical symbolisation to express his perception of space. For example, he used a vertical perspective to

frame the spatial extent of the farm settlement. The depicted roads reflected the aerial view of the farm settlement. First, the Lalupon township road, which cuts across the middle of the landscape (Fig.7.14), extends from the east to the west. Second, the Edun village road (See Fig.7.10 and Fig.7.11) intersects the township road, dividing the north from the south. The third road, labelled as the layout road was within the eastern part of the farm settlement. In contrast to the vertical perspective of spatial features, the participant labelling of a stream informs the map reader of a stream along that side of the farm settlement. In response to my request, the participant included an arrow point to show the map's orientation – the east.

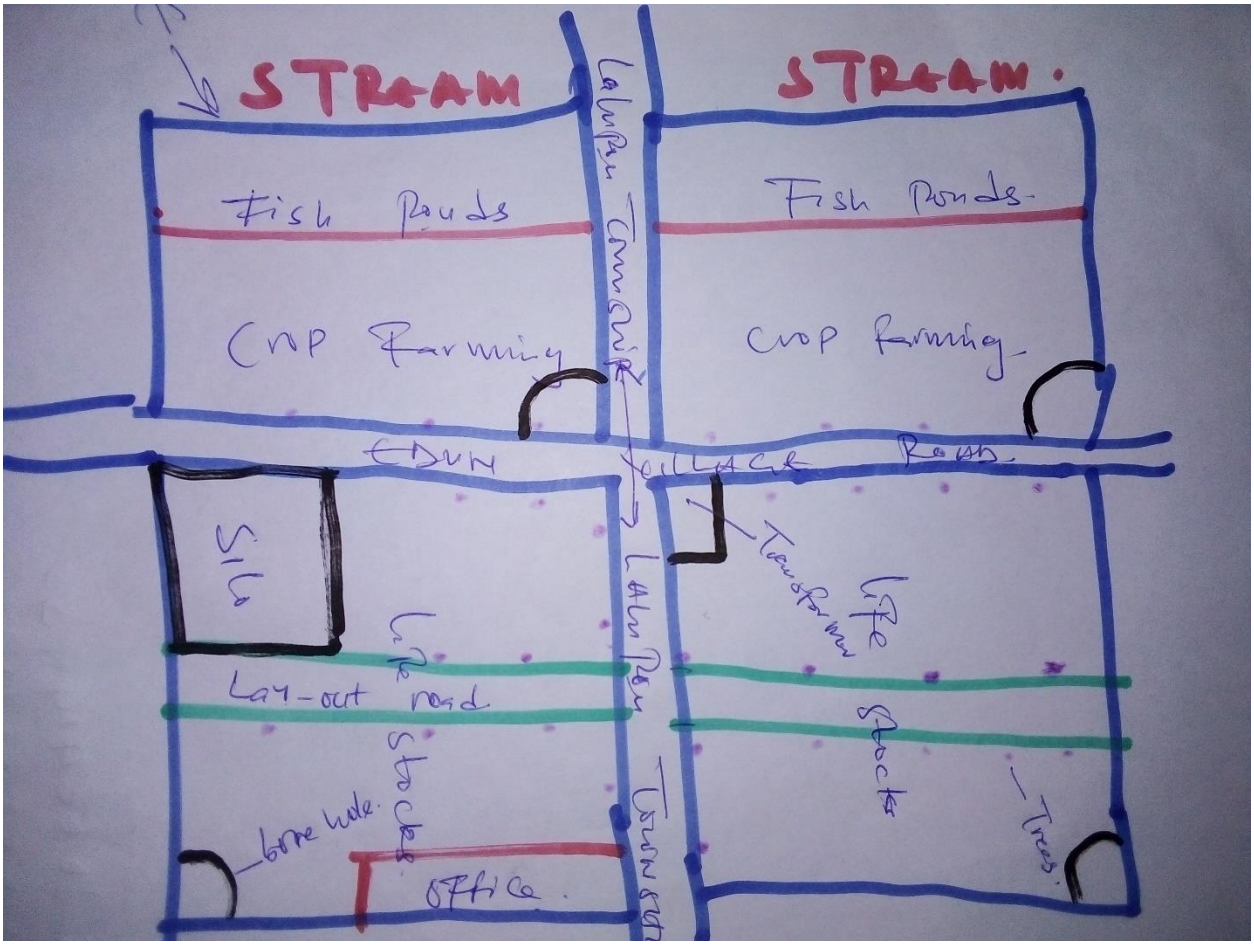


Fig.7.13 Mental Sketch Map of Participant LB (Source: Fieldwork, 2020)

The almost straight-line geometry of the sketch map, compared to the actual material space, was noticeable. Mark et al (1999, 757) point out that "the arrangement of the physical environment as experienced is also known to affect distance judgements, specifically, the amount of clutter or

the number of intersections and nodes or the presence of barriers". LB (re)produced this geography of Lalupon farm settlement using almost straight-lines even though none of the actual roads or the stream was straight-lines. Thus, irregular geographical features "are remembered as more regular; for example, streets and rivers as straighter or more parallel or perpendicular than they actually are" (Mark et al, 1999, 757). The graphic impression of this mental sketch map seems to suggest an almost smooth, detached plan of a farming landscape.



Fig.7.14 The Main Road and the Front Entrance of the Lalupon Farm Settlement (Source: Author, 2020).

The vertical perspective of the farm settlement landscape visualised both natural and cultural features. These place identities reflected the participant's everyday mobility. Place knowledge acquired during commuting or walking influenced the portrayal of physical geography. As indicated, he depicted the stream and trees, which are associated with farming activities in the farm settlement. However, there was lesser attention to representing the physical environment. In contrast, the cultural features framed and defined the agricultural landscape. As illustrated, he represented the farm office, fishponds, poultry pens, electric transformers, silo, and borehole water systems on the landscape. Several cultural features reflected spatial relationships with the natural

spaces he depicted. For example, there was the positioning of the fishponds next to the stream. Also, there was agroforestry on the layout road flanked by natural vegetation. There were attempts to situate spatial objects with their real-world positions. For instance, the major agricultural activity in Lalupon farm settlement was poultry farming; hence, more geographical features filled west of the visualised landscape – the poultry pens implicit in the label 'livestock'. Similarly, west of the farm settlement was the government farm office, positioned relative to its actual location.

The visualised landscape of the Lalupon Farm Settlement drew attention to the realities and counter-imaginations of the state-space (Ott and Aoki, 2004). Using visual skills, LB breaks the silence on the challenges of agricultural activity on the farm settlement. There are challenges to everyday agricultural activity in this state-space, which are not part of the neoliberal visual narrative. For instance, the participant's depiction of nonexistent infrastructural facilities such as water supply, electric supply and storage facility indirectly informed the current state of neglect. As Foucault (1982, 780) observes, "in order to understand what power relations are about, perhaps we should investigate the forms of resistance and attempts made to dissociate these relations". Unlike the signification in state maps, state publications and websites the state settlement scheme lacked several infrastructures necessary for agricultural production. LB, who is a technician, observed that "This farm settlement lack several facilities", pointing to the neglect of the roads in Figure 7.13 (Interview, November 2020).

The farm settlements, as alluded to in Chapter 5, had become a space of neglect over decades. This neglect was a complete dislocation from the peoples' imagination of the farm settlement when the Lalupon Community Development (CD) Pilot Farm Project, founded in 1961, became a full-scale farm settlement in 1964. 'What exists in the way of infrastructure has not been maintained', he remarked referring to neglected water systems along the layout road. Likewise, the farmer referring to the facilities on the state scheme generally opined, "there is little what hoe and cutlass can do today in serious farming activities" (Interview, November 2020). Hence, there was a continued imagination of the farm settlement with physical and social infrastructure. This reflected the entrenched logic of early post-independence social welfarist development, which the current neoliberal agricultural imaginary seeks to displace (Lawson, 2007, 139). Figure 7.13 was also a counter-narrative to the neoliberal positioning of the settlement scheme.

There was an embodiment of subversion on the farmer's map. In discussing the farm settlement, this middle-aged participant also envisioned solutions to the identified challenges. As

Pile (1997, 16) points out, “tactics of resistance have at least two ‘surfaces’: one facing towards the map of power, the other facing in another direction, towards intangible, invisible, unconscious desires, pleasures, enjoyments, fears, anger and hopes - the very stuff of politics”. The map speculated on what ought to be, generating a narrative that could make everyday farm work more exciting for his colleagues and himself. As he complained about the lack of these facilities, he re-ordered the landscape with his desires, hopes and aspirations visualising an alternative rendering of state-space from its current realities. First, he conceived water supply as borehole facilities dedicated to each farm block. This re-emphasised what the farm settlers had always commented upon; that water supply was very important to livestock farming. Similarly, he envisioned an electric transformer on the landscape to draw attention to the need for an electric supply. Though electric supply lines ran across the farm settlement to nearby villages such as Edun, there was no electric supply to the farm. In addition, he imagined the need for a silo. This visualised storage facility reflected his concern “with marketing opportunities for farmers’ produce” (Interview, December 2020). Hence, LB was “seeking to create new meanings out of imposed meanings, to re-work and divert space to other ends” (Pile, 1997, 16), thereby presenting an anticipatory spatiality (Gerlach, 2015). This was a counter-narrative to the neoliberal positioning of the settlement scheme evident in Fig.5.11.

Fig.7.13 discloses the counter-imagination of the participant on current farming operations. As illustrated, the geographical coverage of maize crop farming on the visualised landscape was simply the concretising of a conceptual image. Although there was some maize crop farming, banana trees and secondary forests filled most parts of the farm blocks labelled as crop farming (Field Observation, November 2020). Indeed, part of these blocks had existing poultry pens. However, participant LB appropriated the space for his desired purpose. LB desired to see the block employed primarily for crop farming, a desire shared by other farmers in the verbal geographies examined in Chapter 6.

Besides, he envisioned “to rear cattle on this allotted land”; he was not interested in poultry keeping but desired cattle rearing. He said, “my purpose for securing this holding was not poultry farming, though I have a fishpond [here], I took the allotted farmland to raise cattle in the future” (Interview, November 2020). He directed his critique to the culture of the rentier state that was not concerned with his desires in the “allotment at the farm settlement for which he paid for every month”. Hence, in his geographical imagination, the label ‘Livestock’ meant not only poultry-

keeping but also cattle-rearing. The primary concern of the Lalupon farm settlement was poultry production embedded in its local place name of *Sasa Aladie*, [Sasa – the poultry breeder]. Hence, this farm settler's map contested the 'norm' – of the government's age-old policy of running the Lalupon farm settlement solely for poultry production (MANR, 1977, x). This desire echoed the cries of several agricultural experts and citizens for cattle ranching as practised at the Upper Ogun Estate in the late 1950s and farm settlements such as Ilora in the early 1960s. Farmer-herder clashes in the northern part of Oyo State seem to make him more desirous of challenging the programmed farm landscape. Thus, his interest in crop farming was possibly for hay production.

The visualisation of the Lalupon farm settlement unveiled the notion of development on the 'rational' landscape from the subaltern perspective (Lawson, 2007, 153; Mitchell et al, 2011). This perspective viewed the state landscape from the context of purpose it served in the everyday geography of the subaltern farmer. Hence, it exposed the disinformation and misleading narratives of state-sanctioned neoliberal agricultural imaginaries (Williams, 2021). As Pile and Thrift (1995, 46) observes "thinking new possibilities for practices of the body and subject" might not "undo the regulatory and oppressive maps of meaning and power" but "it is difficult to imagine new cartographies of the body and the self, of power and meaning, without continually revamping and re-placing the subject". This reiterative context of everyday survival was evident in the appropriated spaces and imagined futures that Participant LB expressed in his visual narrative of the state-space. Compact farmlands embodied the notion of the state-space, but its demarcated spaces are also invisible in the visual narrative of neoliberal maps.

7.3.2. The Farm Holding – Participant LW

Participant LW drew Fig.7.15. This participatory map resulted from discussions on the current spatial organisational practice in the Lalupon Farm Settlement. The participant, as aforementioned in Chapter 6, an official of the Lalupon Farm-Settlers Association (FSA), was keen on discussing the current farm holding practice. Therefore, the visualised agricultural landscape was concerned with the landholding system in poultry farming and deliberations of an ideal farm settlement. The transformation of these oral narratives into visual images was technically challenging for LW (Marshall, 2007, 23). For instance, participant LW, like some other participants, initially preferred to provide an oral map, describing problems and envisioning the ideal landscape with good roads, houses and electricity. The participant attempted to express gesturally this argument as an

ephemeral map on a table (Edney, 2019, 236), but I encouraged him to make use of the paper and colour-marker to visualise this argument. LW articulations of the issues revealed he had some form of higher education but he complained about not having drawing skills. Thus, there was an initial hesitancy to express himself visually.

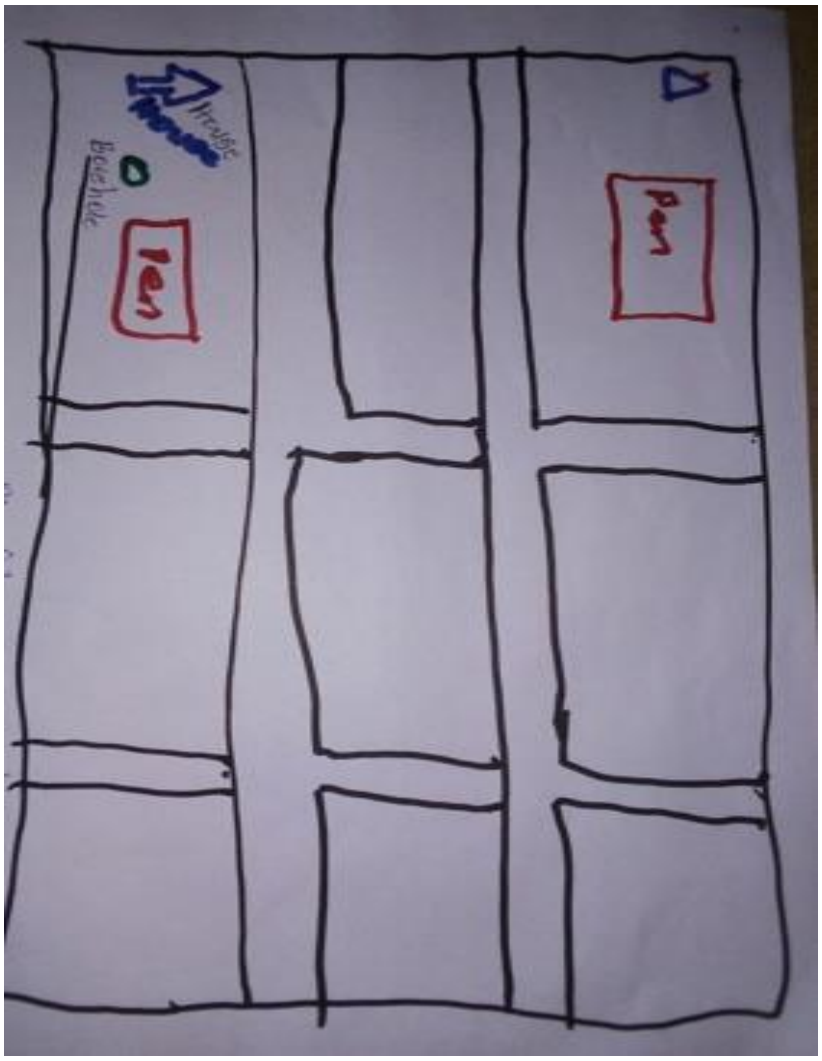


Fig.7.15 Mental Sketch Map of Participant LW (Source: Fieldwork, 2020)

The vertical perspective of the visualised landscape displayed a geometrically partitioned space. The bounded spaces were organised using basic geometric shapes. For example, a parallel pattern of rectangular shapes represented farm blocks and farm holdings. The representation of the agricultural landscape further employed figuration to evoke the plot system. For instance, the participant included figurative pictograms of three features in one of the constructed spaces. The

various rectangular spaces denoted blocks, farm holdings and roads but one space had a house, a borehole and a pen. These features made up the layout of the farm settlement – represented as a larger rectangle on the paper. Although LW had Lalupon in mind, he did not attempt to create any spatial relationship between the visualised landscape and the actual geographical landscape. Fig.7.15 was an imaginary space used to make sense of an actual landscape yet it was also an idealised plan. As Minca (2013, 50) contends that "all maps are by definition implicit plans", which "incorporate a spatial ideology of some kind", from which the mapmaker can "draw expectations, self-representations, personal identities". Hence, this visualisation of the farm holding unveiled, using basic geometrical knowledge, the participant's spatiality of the state's codification of territorial space.

The strong awareness of internal territorialisation evident in this visualisation of space reflected early post-independence state rationality of modern agriculture (Vandergeest and Peluso 1995). The micro-territoriality of allocated farm holdings was integral to the farmers' everyday experiences. The care of birds, the supply of water and the disposal of waste involved everyday routine movements, which apparently contributed to the place-based knowledge, expressed in the depicted landscape. Although the Lalupon Farm Settlement farm holdings compared to bigger farm settlements such as Ilora and Ogbomoso were very small, there was no full occupation of holdings unlike the state-sanctioned neoliberal narrative. Indeed, LW spoke about multiple allocation and unoccupied allotments. The politics of plot allocation was one with which most farmers are well acquainted. For example, LW as an FSA official was very much concerned about the allegations of an unofficial farm plot use. He raised the issue of farm holding often during the farm-settlers meeting concerning paying FSA fees:

> [mentions a name] is alleged of having three holdings but wants to continue to pay fees for only one holding'….it is important that all of us get our allocated letters in order. It was reported from [government] secretariat that some people here have doubtful letters of allocation. [Responding to comment by a settler about occasional field inspection from the agricultural ministry] …Ultimatum had been made to several persons claiming to have holdings here by November last year [2019] to have their allocation letters in order. I learnt of [mentions a name] and the allegation of him having three farm holdings with doubtful allocation letters (Interview, December 2020).

Interview data suggest that some of the landholders were resisting the state assertion of authority to their multiple holdings (Interview, December 2020). For instance, there were allegations that

some veteran farm-settlers, who continued operating the farms when the state abandoned the settlement scheme in the 1980s and 1990s, had more landholding units. On the restoration of civil administration in 1999, the governing class became concerned with collecting fees rather than restoring abandoned infrastructural and operational structures. As Scott (1985, xvi) points out "the ordinary weapons of relatively powerless groups: foot-dragging, dissimulation, desertion, false compliance, pilfering, feigned ignorance, slander, arson, sabotage, and so on". Hence, foot-dragging and similar strategies was a subtle resistance of these veteran farmers to state fees. This resistance was in the face of governmental technologies of allocation letters and field inspection (See Fig.6.10). Conversely, there was no full occupancy of the small-sized farm holdings. For example, there are still several unutilised farm holdings and pens on the northern side of Lalupon Farm Settlement. These unoccupied landholding units echoed every day the state's neoliberal vision of rent collection (Harvey, 2005a, 187). LW contends they remained unoccupied because of the non-attractiveness of the workspace. Participant LW concerns about the territoriality of each farm holding reflected in his visualised image of residence, water supply and pen in the depicted landscape.

The presence of residential houses in two farm holdings on the visualised landscape revealed both the challenge and importance of residences on the farm settlement. The farm settlement scheme echoed challenges of derelict houses, the notion of non-residential settlement and the need for new structures. As I have shown in Chapter 5, derelict buildings characterised several farm settlements in Oyo State. LW insisted he did not know much about the earlier residential buildings on the farm settlement. He described himself as a "newcomer to Lalupon [farm settlement]". However, the embrace of economic liberalisation discarded the peasant developmental context (Bryceson, 2000; FMAWRRD, 1988) and it strongly opposes building new residences on the settlement scheme. Rather, there was an introduction of the notion of non-residential farm settlement in the late 1990s. As a result, the Lalupon farm settlement was non-residential. This non-residential strategy has been part of the neoliberal agricultural politics of replacing the 'initial' concept of *Agbe-Oko-d'Oko* [residential farm settlement].

LW explained, "the current non-resident character of Lalupon farm settlement was due to pioneer farmers at Lalupon scheme being indigenes of Lalupon. Hence, they did not require residences on the farm". This explanation relied on a narrative he heard from an older farm-settler. As Pile and Thrift (1995, 45) observe "People struggle to achieve the ability to make their

appearance blend in… under the scrutiny of the gaze and graze of the other, under the self-scrutiny of the mirror". However, there was documented evidence of farm-settler residences at Lalupon in the early post-colonial period (MANR, 1977, iv). The importance of this visual image of residential houses to LW reflected during the farm-settlers association meeting, where he remarked that:

> [because] farm settlers are not resident here the issue of security not only of pens but also of the whole farm settlement should concern each and every farm settler…. [Also], we should be concerned with the matter of waste dumping along [mentions the area] on the settlement. I accused [mentioned a name] about this, he and the people there said that this is a government property…. [then responses to several comments of other farm settlers] we shall follow the suggestion that a signboard be erected to warn against this practice of waste dumping (Interview, December 2020).

Interview data reveals, oddly, that waste dumping was a form of resistance against the state government by some residents and indigenes of Lalupon. The improvised refuse dumps are the unallocated land holdings located at the fringes of the farm settlement. This unhealthy form of resistance and similar acts has become a common form of protest in some communities that offered the lands of the settlement schemes to the Old Western Region (Olaoye and Adekanye, 2014, 129). The FSA informed the Lalupon CDA about this act of waste dumping. The CDA suggested the erection of a warning signpost.

Consequently, there was the need for a new residential structure on the farm settlement. The construction of new low-cost buildings, the participant opined, was necessary to have an ideal farm settlement. LW suggested, for instance, that: "this residential house should be self-contained with a [bed] room, a living room, toilet/bathroom and kitchen" (Interview, December 2020). This basic residential facility was necessary, he contends before the state narrative of an efficient agricultural sector can be considered unpretentious and not disinformation. Indeed, this strategy of the non-residential farm settlement scheme questions 'the notion of farm settlers' at Lalupon farm settlement. The need for residential facilitates was important to LW. Three weeks later when I met LW to further discuss on the conditions of the farm settlement, he reiterated his request, made during the sketching, that I should add the three features of residential house, water facility and pen, to each land holdings in the initial drawing. The addition was made on a photocopied version of the initial sketch. Hence, the visualised houses in Fig.7.16 reverberated with the residential needs of farmers in the state-space.

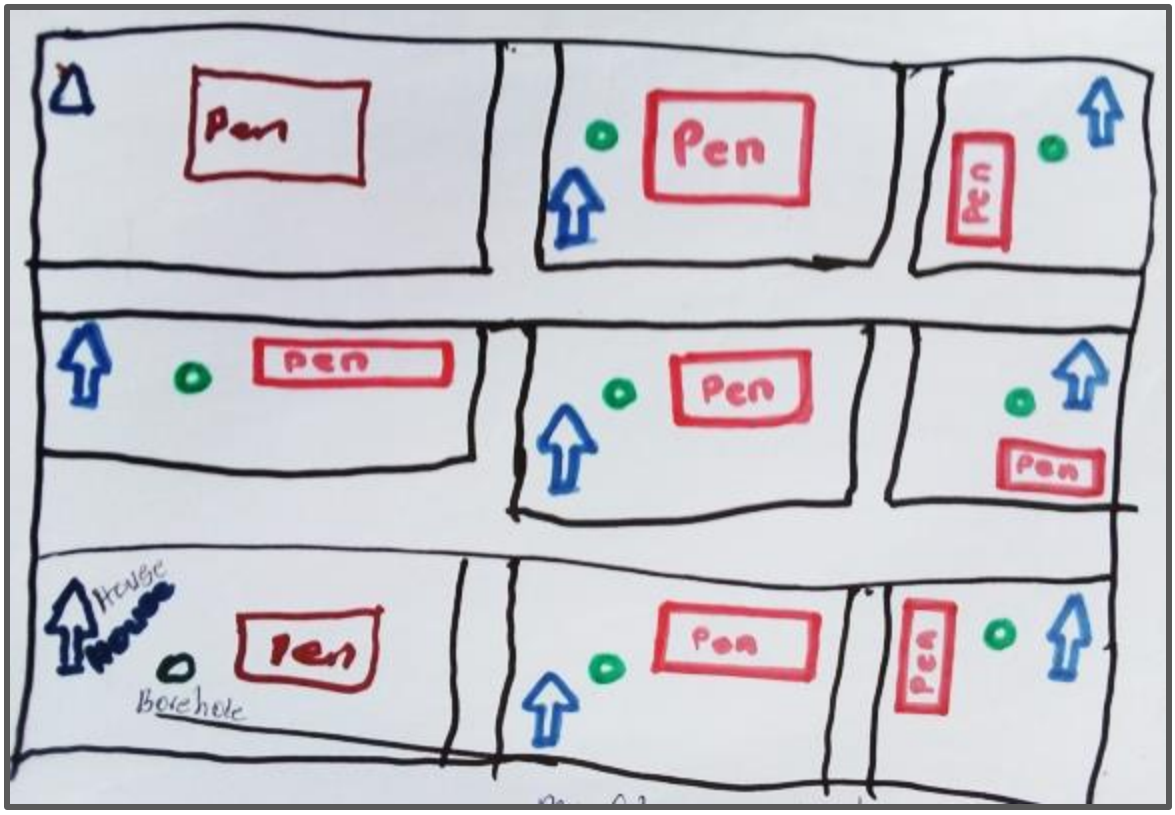


Fig.7.16 Redrawn Mental Sketch Map of Participant LW (Source: Participant/ Author, 2020)

Another challenge on Lalupon farm settlement was the water supply. The portrayal of the water borehole in Fig.7.15 drew attention simultaneously to the lack of water infrastructure and the envisioned system of water supply. The lack of water supply has had an impact on farming activities. To demonstrate, the current practice of water supply for poorer farmers was head porterage. However, some farmers installed small borehole systems privately; actions that often encourage the state narrative of entrepreneur farmers. I asked LW regarding government narratives on infrastructural revamping on the farm settlements. He showed the visible signs of derelict water supply infrastructure to disprove the claims of the state. For example, the rusty water pipe systems of the early post-colonial infrastructure are still evident. In addition, LW referred to and later pointed to the water tap built by Petroleum Trust Development Fund (PTDF). The PTDF was a special intervention fund used by the central government to support infrastructural needs in the country. He said, “the water tap was used once before it became dysfunctional”. Visualising the borehole water system was an insight into the current problems of the farm settlement and

suggestions for improving the situation. In effect, LW emphasised the ideal: every landholding unit should have a dedicated water supply point.

On the Lalupon farm settlement, the pen was the main structure of agricultural production. The visualisation of a pen within the farm holding on the fictional landscape in Fig.7.15 drew attention to the current practice. For example, the relative size of this visual image contrasts the merger size and crude construction of the current poultry pens (See Fig.6.9). Hence, the visualisation was a counter-narrative to the state representations of efficient poultry farming infrastructure on the settlement scheme. Pen infrastructure was another problem farmers contend with at Lalupon farm settlement. For instance, there are several abandoned pens scattered across the farm settlement, which revealed better pen construction in the early post-colonial period. In contrast, several of the currently used pens utilised unsewn tree trunks as pillars. Such materials cannot support larger pens. This has implications for the poultry business. Consequently, LW delved into the history of pen size on the farm settlement.

these pens were built for each individual during the era of Western Region. It was meant to be a training facility. [but] it has not been improved ever since. There ought to be a pen to each farm holding. The pen and its surrounding that is the farm holding itself is 30" x 60" [feet] (Interview, December 2020).

The reference to the measurement by LW revealed his concern with insufficient spacing concerning the current allotted space. Larger pens mean better service conditions and more profit. Hence, the need for larger and better pen infrastructure on each farm holding was inevitable for an ideal farm settlement.

The visual form of counter-narrative exposed the challenges in the sub-divisions of the state-space (Segalo, Manoff and Fine, 2015). The farm-holdings remained the micro-geographies of everyday survival within the state-space. I have shown from the articulations of LW that residence, water supply and pen facilities are crucial elements of the ideal farm holding which do not reflect in the neoliberal agricultural narrative of the actual conditions of state-space. Several Lalupon FSA members emphasised and insisted, at the assembly hall where we held interviews (Fig.7.17), these three elements of the farm holding were essential demands from the subnational state. Their "opposition to the effects of power" was against "mystifying representations imposed on people" (Foucault, 1982, 781). The questionable notion of the inefficient farm settler of the welfarist type in recent times was directly an effect of state power. The farmers resent the state representation of

the individual as solely responsible for their economic success while they pay land rents. Besides, the neoliberal restructuring of the farm holding system, as revealed in the new mentality of the rentier state, as implications for the physical environment (Harvey, 2005a, 187). These environmental implications are also not visible in the neoliberal cartographic narrative.



Fig.7.17 The Assembly Hall, Lalupon Farm Settlement (Source: Author, 2020)

7.3.3 Environmental Care – Participant LS

Translating cognitive knowledge into visual images was challenging for several farmers. Several participants contributed their lived experiences to the counter-narrative of the agricultural settlement scheme but "are less articulate graphically than others" (Catling, 1978, 123). Indeed, some individuals were eager to share their everyday knowledge at the Lalupon farm settlement but could only do so verbally. For example, participant LS maintained he could not draw but richly described several places and events concerning the farm settlement during the focus group discussion and personal interviews. LS, apparently, a trained agricultural technologist was very articulate verbally about the farm settlement. He requested I draw while he verbally describes his spatial thoughts. After I could not encourage him to draw, I conceded to drawing based on his verbal descriptions. As Emmel (2008, 6) observes, "so it is quite acceptable for the participant to direct the researcher to draw and annotate a participatory map for them". I constantly referred to the farm office and assembly hall (Fig.7.17) as important landmarks to situate the participant's descriptive geography in Fig.7.18 during the discussion.



Fig.7.18 Mental Sketch Map drawn and annotated at the direction of Participant LS (Source: Fieldwork, 2020)

The basic spatial thought of Participant LS concerned environmental challenges and solutions to the existing conditions. Our conversation on environmental pollution involved his lived experiences. For example, he noted the increasing complaints from residents of Lalupon town against air pollution from the Lalupon farm settlement. This complaint was about the effect of

poultry waste. This issue was the focus of his conversation regarding the location of any farm settlement. He explained:

> Nobody should complain of air pollution [when a farm settlement has been established]. This is the usual challenge poultry-keepers face from [nearby] neighbourhoods and residences. If [a] farm settlement is devoted to or also involved in poultry farming, it is those who came later to that area and built their [residential] houses near the farm that are at fault (Interview, November 2020).

In addition, he shared his experiences of community action against air pollution in Northeastern Ibadan hinterland. As an illustration, there was a challenge of air pollution at Ejioku between "a poultry farm and the neighbourhood association". The neighbourhood association took legal actions against the poultry farmer. This situation eventually involved the map services of the state government. He narrated that the neighbourhood association lost the case. The reason was that they ought to have prior knowledge of the agricultural facility in the area from the state cadastral map services. Hence, they should have taken appropriate locational choices in the locality. This narrative was "retelling experience as a specific enunciative practice", as Pile and Thrift (1995, 19) observes, "which galvanises self and context in a new way". LS employed this experience to contest oppositions of the Lalupon residents to environmental pollution from the farm settlement.

This reference to government map services was quite interesting, but subaltern would-be-residential owners rarely make such consultations. Several reasons influenced and discouraged these important cadastral and cartographic consultations. For example, detailed up-to-date, large-scale cadastral maps of rural areas are not available for everyone to crosscheck independently the spatial claims of government surveying officials. In addition, medium-scale maps of rural areas are inaccessible to the public to monitor spatial development on their own. Therefore, the inaccessibility of maps and plans sometimes facilitated some unethical practices in state bureaucracy concerning land matters (Birner and Okumo, 2012). Regardless of the digital turn, several citizens are wary of state mapping services. This bureaucratisation of space aids the challenges and workings of power relations in a capitalist economy (Lefebvre, 1991). Participant LS's main argument was that residential buildings ought not to be sited near a farm settlement, particularly, a farm settlement devoted to poultry farming.

Participant LS opined that the increasing complaint of air pollution at Lalupon was because of the spatial extent of the farm settlement and territorial incursion into the settlement. Lalupon

farm settlement has the smallest spatial extent amongst farm settlements in Oyo State. Indeed, as aforementioned, the farm settlement began as a small CD Pilot Project in 1961 under the Lalupon-Erunmu CD Block (LECDB). Then it became a farm settlement under the Integrated Rural Development Scheme (IRDS) of the Ministry of Economic Planning and Community Development in 1964. In the 1970s, it became devoted to poultry and piggery farming while an agricultural training centre for farm-settlers (MANR, 1977). However, in the 2000s, population increase has led to the extension of residential buildings in the town nearer the small-size farm settlement. In addition, there are deliberate incursions of residential builders into the settlement scheme, which settlers contend made air pollution unavoidable. To illustrate, LS explained there has been the increasing intrusion of house owners into the designated land of farm settlement from the south. There was earlier corroboration of this opinion of LS by participant LM, a member of the Lalupon CDA (Interview, November 2020). As a result, there was a form of local land grab affecting this Oyo State farm settlement scheme similar to Ogun State settlement scheme, but at a lesser magnitude. This complaint of air pollution has led to the rise of local environmental activism.

Environmental activists against poultry farming in local communities are increasing in southwestern Nigeria. There was increasing environmental concern in communities nearer state-owned farm settlements devoted to poultry farming. The neoliberal agricultural narrative has not seriously acknowledged this environmental challenge. Neither the local nor the state governments have considered this a serious public health issue. For instance, there was serious complain regarding environmental pollution at the Lagos State Farm Settlement at Aiyedoto (Igomu, 2020). The impact of air pollution has been the emergence of an offensive spatiality mediated by olfactory senses (Downs and Stea, 1973, 316). This spatial awareness was most concerning west of Lalupon farm settlement (See Fig.7.13). The image of the settlement scheme in the minds of some residents of the Lalupon community seems to inform their practice of exclusion of the state-space (Sibley, 1995, 49). Here the reformed Other was in socio-spatial contest with the rural Other as the state-space was labelled an area of pollution.

Participant LS had a suggestion for the mitigation of this environmental challenge. To address the air pollution at Lalupon, he recommended the use of agroforestry. First, it was a means to stop or reduce the incursion of residential builders into the farm settlement land. Second, it could reduce the direction of air pollution towards residential areas. He cited the example of some houses

on the other side of the farm settlement. Hence, he spoke about the "double value of trees" not just as a measure to residential incursion but also against air pollution. I asked why the FSA did not inform the state government. The responses of farmers were like those of their counterparts in Ogun State – silence from the state government secretariat. In contrast, a state bureaucrat had insisted there were constant meetings with FSAs on such issues (Interview, January 2021). In effect, there are communication challenges in state-society relations on the issue of environmental degradation (Harvey, 2005a, 69). Consequently, the picture of the farm settlement LS envisioned on the landscape included a belt of protective agroforestry.

However, participant LW had a mixed response to the view of participant LS on the use of agroforestry. LW opined, "Trees are good but if they fall, they can affect the pen. [Though] trees can help reduce the temperature… of course, a cool temperature is preferable…. [and] it also serves as windbreak" (Interview, December 2020). LW did not engage the issue of the pollution on the landscape. In contrast, LS firmly insisted and believed in using agroforestry as a micro-territorial strategy to reduce environmental pollution and public health hazard. He described this strategy of tree planting, which I depicted in the participatory map (Fig.7.18). He advocated for more intense tree planting than currently existing at the farm settlement. Notably, while I was at Lalupon, in contrast to his view, there were deforestation activities near the poultry pens beside the Assembly Hall (Fig.7.17).

Apart from environmental challenges, participant LS also engaged in the infrastructural problems at Lalupon farm settlement. LS had concerns about the poor water infrastructure in the farm settlement. As revealed, like in other holdings with operational pens, head porterage was the means of water supply to his pens. Unlike the few farmers with borehole water, he employed water carriers. Head porterage was time-consuming, expended much human energy and was financially costly to the farmers. He argued that the foremost requirement of the farming landscape was water supply to stay functioning. He said:

> Water supply is an important infrastructure. [In fact] in my opinion, it is the most important for one can sometimes do without [electric] light. But we cannot do without water. Water supply is a must. You have to give the poultry birds water every day. The construction of a borehole is really welcomed in a [poultry-oriented] farm settlement. I tell you [he emphasised] the source of water is important to poultry-keeping. Poultry-birds must have water every morning and evening (Interview, November 2020).

Therefore, a borehole water system becomes important in his re-imagination of the state-space. I translated his verbal description and gestural mappings into visualisation showing the location of the water tank and the direction of pipes he suggested (See Fig.7.18). He acknowledged the sketch and pointed out some corrections to the layout of the pipe.

Another challenge on the farm settlement was electricity. For example, LS contends that the government was not thinking about the value of electric light to poultry farming. As aforementioned, there was an electric transmission line across the farm settlement to Edun village, but there was no electricity connection to the farm settlement. It was apparent that without residences on the farm settlement, the motivation by the state government to provide electricity would be difficult. He explained the value of electric supply to the hatchery.

> If electric light is included [in the improving of the farm settlement] it is welcomed. Electric lighting is greatly needed for breeding chicks. You can see the hatchery over there [he gestured towards a large oblong building afar] that is where chicks are breed and that [he points] is the electric generator used for the purposes [of moderating] temperature for the chicks. [In the pens] electric light helps to avoid accidents amongst birds. For example, if there is no light, sometimes, birds might sleep over one another leading to suffocation and death of birds. [And the owner will incur loss] (Interview, November 2020).

Hence, he envisioned electric lighting facilities within the farm settlement. I translated the envisioned verbal map of the power station and power transmission lines within the farm settlement into visual images (Fig.7.18). Unlike LB, participant LS did not give any specific information regarding what sort of electric power facility. Nonetheless, LS was convinced that electricity would add value to the agricultural landscape. Therefore, in his geographic envisaging, electric light supply took second place after water supply in improving the farm settlement. Since poultry birds bred elsewhere can be transported to the pens, he opined that good roads were also important.

LS drew attention to the problem of roads in the farm settlement. For instance, the untarred layout roads of the Lalupon farm settlement eroded over the years that some had become gully-like, which was also a source of concern to the participant (See Fig.7.19). He did not envision specific roads with particular geographic reference but generally spoke about roads. This ranking of road in the imagined 'infrastructure' by LS, I suggest, reflected the small spatial extent of the Lalupon farm settlement. Movement around this farm settlement was not long-distance. During a

focus group discussion, an elderly farm-settler, affirming this said, “Lalupon is the smallest of all the farm settlements in Oyo State”. However, this was not general knowledge to the public about the farm settlement. Therefore, movement over long-distance as experienced in other farm settlements was not a challenging issue here. However, LS thought good service roads would also contribute to making the farm work easier, rewarding and profitable.



Fig.7.19 Gully-Like Road at Lalupon Farm Settlement (Source: Author, 2020)

Visualising the agricultural landscape also meant drawing attention to the natural environment that sustains the cultural processes in space. Environmental challenges are an emerging issue on the economic landscape, which the response of the post-colonial state remains elusive (Rigg, 2007; Satgar, 2021). Massey (2005, 170) contends, “Farming itself [should be] understood in an explicitly relational way: between human and nonhuman and as articulating economic, social and environmental practices and concerns. It is emphatically not just an economic

activity". From the verbal description and visual translations of the lived experiences of participant LS, I have shown that air pollution around local communities questions the neoliberal agricultural model of intensive or maximising economic production. Ironically, the notion of pure Self and defiled Other are evident in local communities near some farm settlements to construct images of exclusion as a means of opposition to state power (Sibley, 1995, 58). Economic productivity without the cognizance for the environmental well-being of other persons and non-humans has encouraged the social contest of emerging disinformation of neoliberal developmental narratives. Therefore, there was the need to reexamine the operational models of the settlement scheme.

7.3.4. A Welfarist Model of the Agricultural Settlement Scheme – Participant LA

There was an expression of the visual-spatial form of counter-narrative in the local government bureaucracy at the Lagelu Local Government Secretariat (Fig.7.20). Fig.7.21 was a spatial production based on lived experiences at Ogbomoso Farm Settlement by participant LA. This spatial production was in response to the question I asked concerning the Lalupon farm settlement scheme, which is located in the Lagelu Local Government Area (LGA). He said, "It is a state [government] institution, we [LG] rarely have anything to do with them [farm-settlers]" (Interview, November 2020). In addition, I enquired about his view on the current situation of the government settlement scheme.

Thereafter, I asked for his views regarding the community-based farm settlement scheme (CFS). The map emerged as part of his response to these inquiries. The participant considered the problem of the settlement scheme and agriculture, in general, as the political class. More than two weeks before this visual sketch mapping (Fig.7.21), this second-generation farm settler, as participant LA identified himself, was full of complaints against the political class. He alleged that the governing system had relegated agriculture to the background. For instance, he observed that the Lagelu LG Chairman had responded sometime ago that there were "no funds for agricultural machines" as "there was no money in government coffers" (Interview, November 2020).

Indeed, the political-administrative system had discarded the peasant developmental context, which remained the participant's model of choice. Therefore, no funds are committed to developing local agricultural institutions. In addition, the participant drew attention to the challenge of agricultural machinery. For example, LA remarked, in terms of equipment in Oyo State, "the machinery available for agro-processing or land preparation is not enough" (Interview,

November 2020). Actually, referring to Lagelu LGA, farm machinery "does not exist". He emphasised this in contrast to the few machineries available at the public works department (Fig.7.20). Again, he lamented, "there is no farm tractor for land preparation, owned by the LG, in the entire LGA. [So] farmers had to go to Ibadan, Oyo or Iwo to secure [that is] rent from private owners".



Fig.7.20 Lagelu LG Secretariat, Iyana-Offa (Source: Author, 2020)

The emotional lament of this agricultural officer reflected a subaltern position in the territorial governance of agriculture that has become solely dependent on the actions of the top-down federal and state governmental system. It was apparent that a similar situation in Lagelu LGA was evident in Ogbomoso South LGA, the location of the Ogbomoso farm settlement. The Ogbomoso Farm Settlement had been a model of the farm settlement organisation, after the conversion of the farm school to a full-blown settlement in 1960, but the current conditions of the farm settlement have undermined this geographic imagination of the state-space. These emotive concerns of this local state bureaucrat are reflected in his re-envisioning of the visualised agricultural landscape in Fig 7.21.

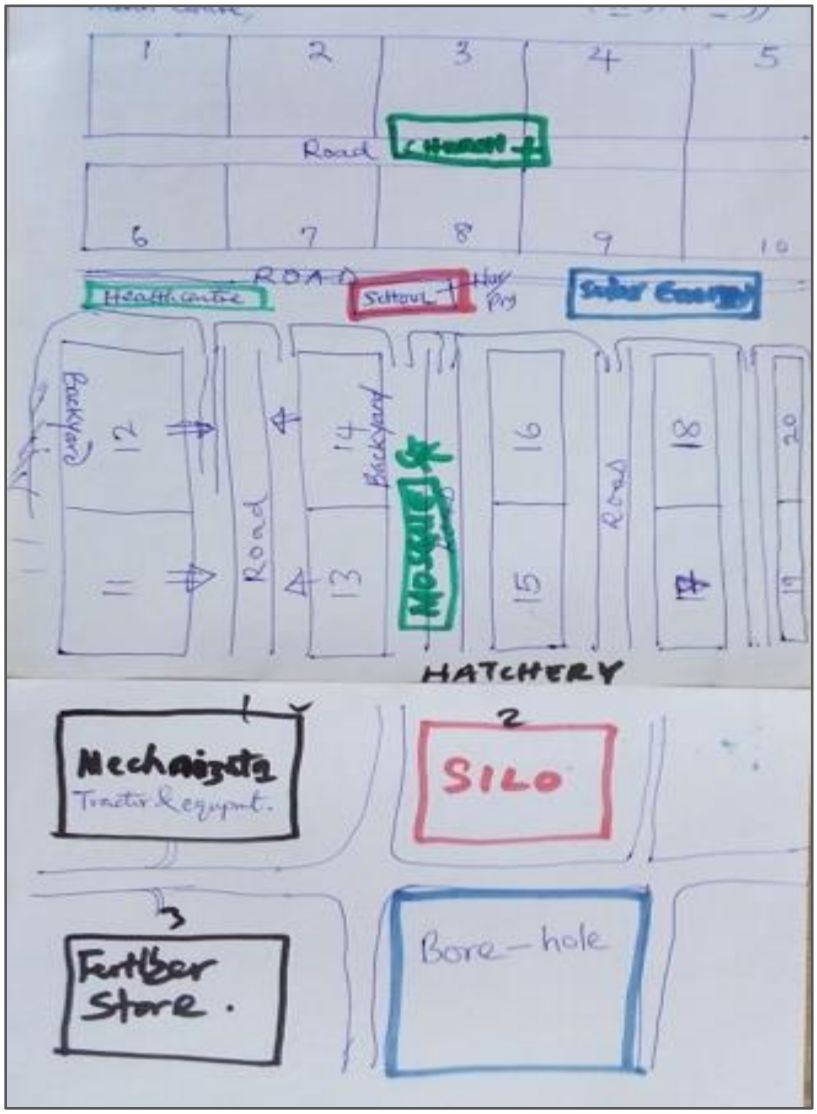


Fig.7.21 Mental Sketch Map of Participant LA (Source: Fieldwork, 2020)

There are divergent views in the state bureaucracy on the subnational state agricultural policy. For instance, at State Government Secretariat, a senior state bureaucrat opined that during the APC regime (2011-2019) the neoliberal "budget estimates in agriculture were not turned into reality" (Personal Communication, April 2019). In contrast, another senior bureaucrat was a firm supporter of the neoliberal vision of the state government. He explained that: "agriculture is treated in Oyo State as a vocation instead of a business" (Interview, January 2021). Presenting this neoliberal view as a norm showed that, "the practice of authority is revealed in the moment where identity is considered as a truth and forgets that it has been authored at all" (Pile and Thrift, 1995,

45). Participant LA, a LG agricultural official was also displeased with the neoliberal narrative. Therefore, there was a danger of reducing the state machinery of neoliberal visions into a single story. There was the need not to reduce the governing and bureaucratic class to a single voice of the politicians and their neoliberal adherents (Nayak and Jeffery, 2011). Besides, there are differentiations in the bureaucratic class including subaltern positions. Participant LA works as an agricultural official in the Local Government (LG) bureaucracy of the Lagelu LG headquarters at Iyana-Offa. LA resided in Ogbomoso Farm Settlement, but he commuted to Iyana-Offa every day.

Everyday commuting between long-distance places contributes to place-based knowledge, which prompted a reworking of the authoritative landscape. The rhythms of everyday commuting of participant LA across the Ogbomoso Farm Settlement impacted his graphical representation of the state agricultural landscape. In addition, there was reflection of this geographical encounter in everyday mobility in his (re)imagination of the landscape.

I take a motor bike every day from Ogbomoso to Ibadan'. [Then he described his movement from the settlement road until reaching the highway]. You can see the whole area [farm settlement] filled with past development and the unused lands.

Participant LA had considerable drafting skills, which he deployed in drawing the map. The participant employed varied graphic symbology to organise and visualise space. A geometric order was evident in the organisation of the represented space. For example, several roads partitioned the spaces on the mental map. There were linear symbols used, for instance, in constructing several roads on the landscape. There was the construction of bounded spaces using polygonal shapes. As illustrated, he depicted several blocks and plots using rectangles and squares. As well, bounded spaces distinguished social spaces. As indicated, there were demarcated spaces assigned to education, health and religious features. This graphic representation made tangible the shortly fleeting everyday place identities on the landscape. The map symbolisation in Fig.7.21 produced a space that reflected both actual and fictional landscapes.

The everyday experience of LA highlighted the place identities of the existing landscape. Although a greater part of the landscape represented the fictional expectations of the farmer, the upper farm block exemplified actual reality on the farm settlement. On the upper block of the depicted landscape, he reproduced the spatial arrangement of an actual farm settlement. This includes the elements of the farm-holding unit - the home plot, the cash crop plot and the

farmhouse. This was the spatial arrangement of farm settlers' holdings between Oke-Ola and Oke Alapata, along the feeder road linking the Ogbomoso-Oyo road. The road network was a framework for recalling the local geography of the Ogbomoso farm settlement. However, he observed, "the [current] conditions of the layout include derelict buildings and unkempt roads" (Interview, December 2020). The personal geography of LA reflected the geometric rationality of modern agriculture when the Ogbomoso farm settlement commenced as the NA Farm School in the early 1950s. He lamented, "all the old farm settlements created by the old Western Region are not functioning at the expected capacity" (Interview, December 2020).

In contrast, in the lower blocks in Figure 7.21, the farm settler imaginatively constructed an ideal farm layout in a farm settlement. Along the routes he commuted are underutilised and unused lands. These routes, he noted, linked the farm settlement roads with the Ogbomoso-Oyo highway. He emphasised, as he drew, the existence of these lands represented as blank space. It was apparent that these underutilised and unused lands on the farm settlement, encountered in his everyday movement, influenced his place knowledge of the authoritative landscape. This lower part of the map emphasised individual farm holdings in the second farm block and infrastructural facilities in the service block. As he drew the farm block, he stressed the geography of the front and backyard of the individual farm holdings.

The underutilised and abandoned space of the Ogbomoso Farm Settlement challenged LA to reexamine the state narrative of effective agriculture, particularly on the state-owned farm settlement landscape. His creative visualisation of socio-physical infrastructure, as indicated on the map, possibly was encouraged by the unutilised farmlands between Ibapon and Adu, north of Oke-Alapata, on the farm settlement landscape. The map became a visual medium to highlight geographies of hope for the abandoned parts of the landscape, which embodies the daydreaming of the farm settler. The depicted landscape revealed the participant's resentment of the current conditions and aspirations for revamping the state landscape from his perspective.

He drew attention to different aspects of this imagined future in the service block depicted on the landscape as what ought to be. This low-cadre agricultural officer, who also identified as a farm settler, imaginatively emphasised the representation of social amenities that needed to serve the geometrically ordered land holdings and farm blocks. In particular, he emphasised the need for electricity. The participant included a 'solar energy plant' in the visualised agricultural landscape as a solution to interrupted electric supply. One fundamental challenge of Oyo State farm

settlements has been the poor or no electricity supply of the farm settlement. For instance, as discussed above at Lalupon Farm Settlement, there was no electricity supply. He opined initially about siting individual solar energy facilities within the farm holdings. However, he stated that in the Nigerian context, "it will be too expensive" (Interview, December 2020).

Likewise, he was concerned with agricultural support services required to make farm work more functional. The participant emphasised, agricultural support services, particularly farm mechanisation on the agricultural landscape. As he argued, the first requirement for successful farming was a farm mechanisation facility. Earlier, he stressed, "nobody was ready to farm these days using hoe and cutlass" (Interview, December 2020). He observed the problem of mechanical power in most farm settlements, remarking that the "underutilisation of allotted farm-holding" in the state farm settlements was due to the "unavailability of mechanical power" (*Ibid*, 2020). Hence, he affirmed the mechanical concerns of the Ado-Awaye CDA concerning their aspiration for the Araromi Community Farm Settlement. This was also the popular view of agricultural bureaucrats that the present state's agricultural rationality cannot be impactful without addressing the infrastructural challenge of the abandoned and underutilised farm settlements (Interview, December 2020). As Pile and Thrift (1995, 45) notes, "People map themselves into socially-sanctioned regulations of body and self—but they do so only imperfectly". Although he questioned the neoliberal agricultural narrative of the farm settlement scheme, he was also quick in declaring his support for the other agricultural policies of the state governor.

As aforementioned, I enquired from this middle-aged participant, about the services the Agricultural Department of the Local Government could render to a community-based initiative in establishing a community-owned farm settlement (CFS). He deployed Fig.7.21 as a visual guide to aid his thoughts and verbal explanation. The visualised spatiality in Fig.7.21, which reflected his training as an agricultural technologist and an experienced LG agricultural official, served to unveil not only reimagining the existing farm landscape but also his ideas of a fictional landscape for a CFS. He emphasised the physical planning of any settlement scheme. For instance, he referred to the layout plan as a visual guide for the geometrical ordering of an imaginative CFS agricultural space. To demonstrate, he wrote down "farm settlement for 20 farmers". Then, he commented that "let us say each of them is allotted 15 acres each". However, he could not give any official or rational economic reason why the allotted farm holdings had 15 acres (6 hectares) each. He further

wrote on paper, “There must be a farm mechanisation [centre], where you have tractors, [and] silo, hatchery, fertilizer store, piggery, poultry [and] health centre.” (Interview, December 2020).

In addition, he emphasised the importance and the centrality of social amenities in any proposed CFS. For example, he explained that the position of medical and educational facilities should be between the farm blocks and the farm settlers’ residences evident in the upper block in Fig.7.21. It was apparent that this spatialisation of social facilities resulted from his personal experience at the Ogbomoso farm settlement. Also, he reiterated his preference for a solar-powered electricity supply in the imagined CFS. Similarly, he emphasised the need for agricultural mechanisation. This prominently visualised farm mechanisation centre, I suggest, was a reproduction of his mental image of an anticipative condition for settlement-type agriculture. As we conclude our discussion on the CFS and his interpretation of the map, he encouraged local communities to establish CFS, as a means to secure the visibility of subaltern aspirations in the post-colonial state. Interestingly, he noted the need for communities to start with a small-scale CFS. However, his perspective on a 6-hectares land allocation for a farmer, clarified his idea of a small-scale CFS.

Imagining the settlement schemes revealed divergent views within the local state bureaucracies where there was still a notion of social welfarist agriculture. Welfarist-oriented agriculture views agriculture as social development (Lawson, 2007, 104; Woods, 2011). Nonetheless, its state-centric approach has become its greatest challenge (Scott, 1998). The lived experiences of participant LA reflected the productive power of governmental discourses of early post-independence agricultural spatiality that I examined in Chapter 4. LA offered, as Pile and Thrift (1995, 46) observe “the resymbolisation, resignification and parodic repetition of the maps that we already have”. By contrast, some state bureaucrats have reckoned need for modifications to the social welfarist model were necessary to facilitate community inclusive models (Harvey, 2005a, 186).

There was the need to modify the conceptualisation of the scheme such that local people may own and partake in the scheme operations. This modifying or, indeed, a rethinking seems evident in the resurgence of the notion of CFS. This rethought seems a reworking of the scheme from below “towards new maps of the subject…in order to re-establish tolerance towards different practices of body and subjectivity” (Pile and Thrift, 1995, 46). Reworking the notion of *Agbe Oko d’Oko* from below is an ongoing process evident in verbalisations, but complementary visual

insights can strengthen these subaltern developments. How do subalterns who are not farm-settlers or state bureaucrats spatialise the notion of CFS? What forms of alternative spatialities are unveiled in this visualising process in the northeastern Ibadan rural hinterland?

7.4. Community Farm Settlement Scheme: The Imagined Cartographies of an Aspirational Geography

Apart from the counter-imagination to the state vision of neoliberal agricultural landscapes, there was an alternative envisioning of the settlement scheme beyond the spatial order of capitalist logic. I argue that visualisation of space through citizen maps can visually unveil and clarify citizen-based articulations of CFS aspirations not directly influenced by state rationality. To do this, I employed participatory mapping "as a tool for internal deliberation and the clarification of local views" (Sletto 2009, 471). As a planning tool, these maps revealed the fluidity of reproducing agricultural spaces (Massey, 1994; 2005) which are consequent to the citizen-based reflective articulation of practical, environmental, economic, social and political knowledges.

Similarly, "as a democratic form of practice" it enabled a critical deployment "of visual cultural codes and ideologies to resist" (Garoian and Gaudelius, 2004, 299) neoliberal manufactured choices, identities and subjectivities (Probyn, 2003). Consequently, these participatory mapping activities unveiled the "inner worlds" of citizens, producing a distinct agrarian spatiality from the normative spatiality of state settlement schemes (Mitchell et al, 2011, 20; Pile 1997, 13). Besides, this propositional mapping engaged subaltern epistemologies to "liberate themselves" from the "internal colonisation" (Pile, 1997, 24) of disciplinary power of state-sanctioned modernist rationality. I shall engage the visual sketch mapping of a CFS imaginary in Ejioku town and its neighbouring villages in Northeastern Ibadan hinterland to demonstrate this reiterative practice of local spatial production.

7.4.1. Concept Generation: Cartographic Imagining of a Community Farm Settlement

Participant EY at Ejioku drew Fig.7.22. This participatory map emerged during our subsequent discussion, as related in Chapter 6, on the idea of a CFS. Accompanied by ephemeral maps, he explained his idea of agricultural space. I encouraged him to visualise this explanation on paper, which I provided with coloured markers. Although, during map-making, EY revealed drawing anxiety but also showed the possession of basic draughting skills. Indeed, his anxiousness revealed

what he referred to as his unpreparedness to draw – to visualise his explanations. Nonetheless, the drawing event resulted in bringing into existence a spatial object (Tappe and Habel, 1998).

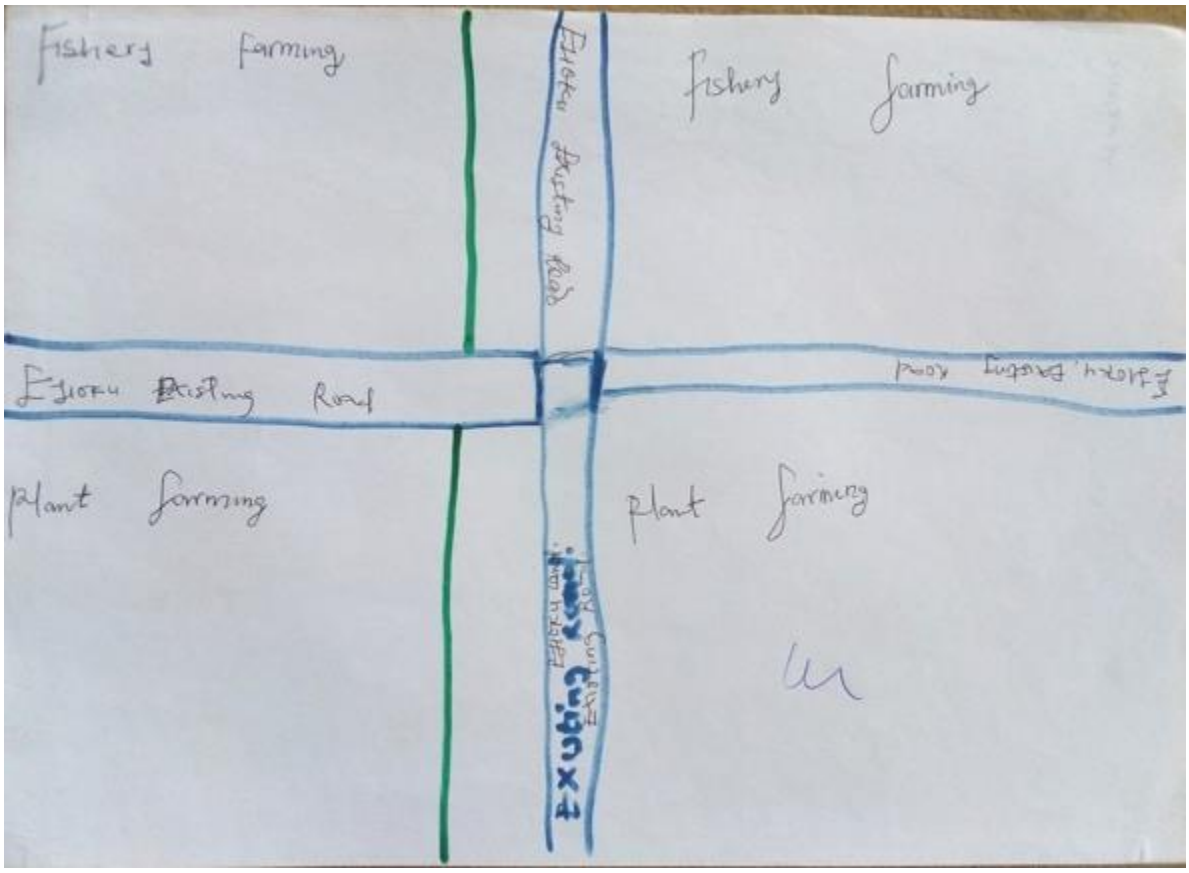


Fig.7.22 Mental Sketch Map of Participant EY of a Community Farm Settlement (Source: Fieldwork, 2020)

The graphic representation was a conceptual generation of the visual imaging of space. Concept generation, in this drawing event, referred to an abstract style of spatial thought externalising a perceived notion of enclave-style agricultural development (Brighenti, 2010). This visualisation employed geometric ordering to produce spatial imagination. As indicated, there was a demarcation of the imagined space into four blocks. Two roads intersected in the middle of these visualised farm blocks. In addition, the mental map used textual signifiers to infuse the spatial production with meaning. As illustrated, the upper block indicated fish farming while he assigned the lower block to crop farming. Also, placed within these roads was the label 'Ejioku Existing Road. Hence, the graphic space at inception embedded an actual geographical sense. The

simplicity of the resulting visualisation embeds roads, farming blocks and cropping schemes that evoked the transforming power of visuality (Brighenti, 2010, 34; Marshall, 2007). It gave a cartographic impression of a farm landscape at Ejioku (See Fig.7.23).



Fig.7.23 Ejioku Town (Source: Author, 2021)

So why did the participant situate Ejioku into the mental sketch map? The geography of this fictional landscape drew attention to the agrarian imaginary and spatial thoughts of EY. The agrarian imaginary of EY reflected a geographical concern in the socio-economic development of Ejioku. For example, there were ideas of a collaborative farming scheme in the town before this mapping interview. EY thought four factors are crucial to the establishment of the CFS. These factors include land, finance, transport and marketing. These factors were influential in the concept generation of the visualised landscape. Apart from finance, the three other issues directly involve spatial awareness that requires clarity beyond the initial verbal communication.

First, there was land and the cognizance of different types of farming, which he made evident in the fictional landscape. Information was a vital component of aspiration. Fig.7.22 reflected prior information the participant had on agriculture. For instance, the label "Fishery Farming" reflected the participant's attendance at a seminar on livestock farming at Moor Plantation, Ibadan three months earlier. The awareness from this seminar suggests the reason for

zoning the upper blocks to fish farming. However, I also suggest that this reflected increasing disapproval of large-scale poultry farming in the rural hinterland, owing to the environmental pollution of poultry waste in both state and private farms. Second, the visualised landscape drew attention to transport echoed in the road pattern. EY emphasised, "Road is a key feature of creating a successful farming" (Interview, December 2020). Third, he raised the issue of marketing agricultural produce during our discussion. Nevertheless, there was no graphical indication of a store or other marketing facility on the visualised landscape.

In addition, EY referred to access to a tractor on the farm while drawing the green coloured line on the mental map. Thus, the area between the green line and the road seems zoned for such facilities as mechanised tools, principally tractors. The tractor was the only 'farm machinery' he mentioned. However, EY did not use any graphic mark to visualise a mechanical service zone like participant LA did in Fig.7.21, even though it was part of this conceptual image of the farm. However, he stopped the drawing abruptly. He became thoughtful of consulting other EYDA members. As aforementioned, he grounded this visual imagining of the agrarian landscape within a collaborative interest.

Participant EY ended the drawing abruptly because he thought he wanted "to do it properly". The fictional landscape did not only unveiled an individual perspective to agricultural spatiality but also the shared meaning of a collective identity in local geographies. For example, he wanted the researcher to meet the CBO at Ejioku, the Ejioku Youth Development Association (EYDA), to discuss further the idea of the CFS. EY became concerned with making his self-expressed narrative more visually convincing through consultation with other persons. Also, he tried to tie up the idea of the CFS, as I explained to him occurring in the Oke-Ogun, to local ideas of community development at Ejioku. For instance, EY remarked that the mental sketch map would be a proposal for discussion at the next meeting of the EYDA. As a member of the association, he thought the idea of a CFS would attract attention amongst several members of the EYDA. The spatiality that emerged in Fig.7.22, as interview data suggests, reflected the shared concerns of local development concerns. It was also a concern that has re-emerged amongst several CBOs in Oyo State in recent times. This concern as intensified as the neoliberal agricultural narrative gained momentum in public space (Castellanet and Diepart, 2015). For example, there was emergence of small local farming projects for young farmers in CBOs in Oyo State.

Although the notion of a Youth Farm has always been with local communities, there was a resurgence of locally-defined large and medium-scale collaborative farm schemes. For example, the Oke-Ogun Youth Association (OOYA) appealed for financial assistance for its farming scheme from the subnational government. This appeal occurred at the height of the neoliberal narrative of transforming the farm settlements into PPDP agribusiness estates. The project coordinator of the OOYA's Green Revolution observed, "the association has acquired 1500 hectares of land in four different locations across Oke Ogun and currently has about 1600 registered members who are ready to take to farming" (*AgroNigeria*, 25 October 2019). There are similar developmental imaginaries I found amongst members of Lalupon CDA and Erunmu Development Association (EDA). Although Ejioku YDA does not have the geographical coverage of the OOYA nor as numerically large as Lalupon CDA or EDA, this CBO also possessed its imaginations of local agrarian development.

Although Fig.7.22 unveiled an agrarian spatiality of the participant EY, it suggests little information to the reader. As Montello (2002, 292) note, "maps do not communicate knowledge, they stimulate and suggest it". Therefore, the mental sketch plan stimulated a geographical imaginary at its conceptual stage. This conceptualisation occurs in two forms - perceptual and propositional (Barry, 2005; Tappe and Habel, 1998). The spatial perception draws attention to the graphical thinking whilst the propositional form reveals the concern of the participant with real-world entities. Tappe and Habel (1998, 2-3) contend the two layers during the drawing event interact and they described the latter form as "intended entities". In Fig.7.22, the label "Ejioku Existing Road" was a perceptual form of representation but also an intended entity analogous to the material reality of the actual geographical world.

7.4.2. Concept Evaluation: Youth Community Farm Settlement Scheme

A month after the drawing of the mental sketch map (Fig.7.22), I engaged participant EY to explain a new geographical mental map (Fig.7.24). EY was an important member of the EYDA and my key informant. As interview data revealed, he was a polytechnic graduate with an active interest in community development. Unlike the previous mental sketch map, there was a collective production for the new geographical mental map (Fig.7.24). In addition, the map production was not in my presence. Owing to a public health emergency, EYDA members held a small mapping workshop where participant EY oversaw as a pseudo researcher (Yeung 2003, 452). EY who led

the new drawing exercise while dialoguing with EYDA members seems to 'disapprove' his initial map, as interview data suggest, as 'unsatisfactory'. However, his aforementioned mental sketch map (Fig. 7.22) was still a guide in the subsequent cartographic imaginings of this CFS aspiration.

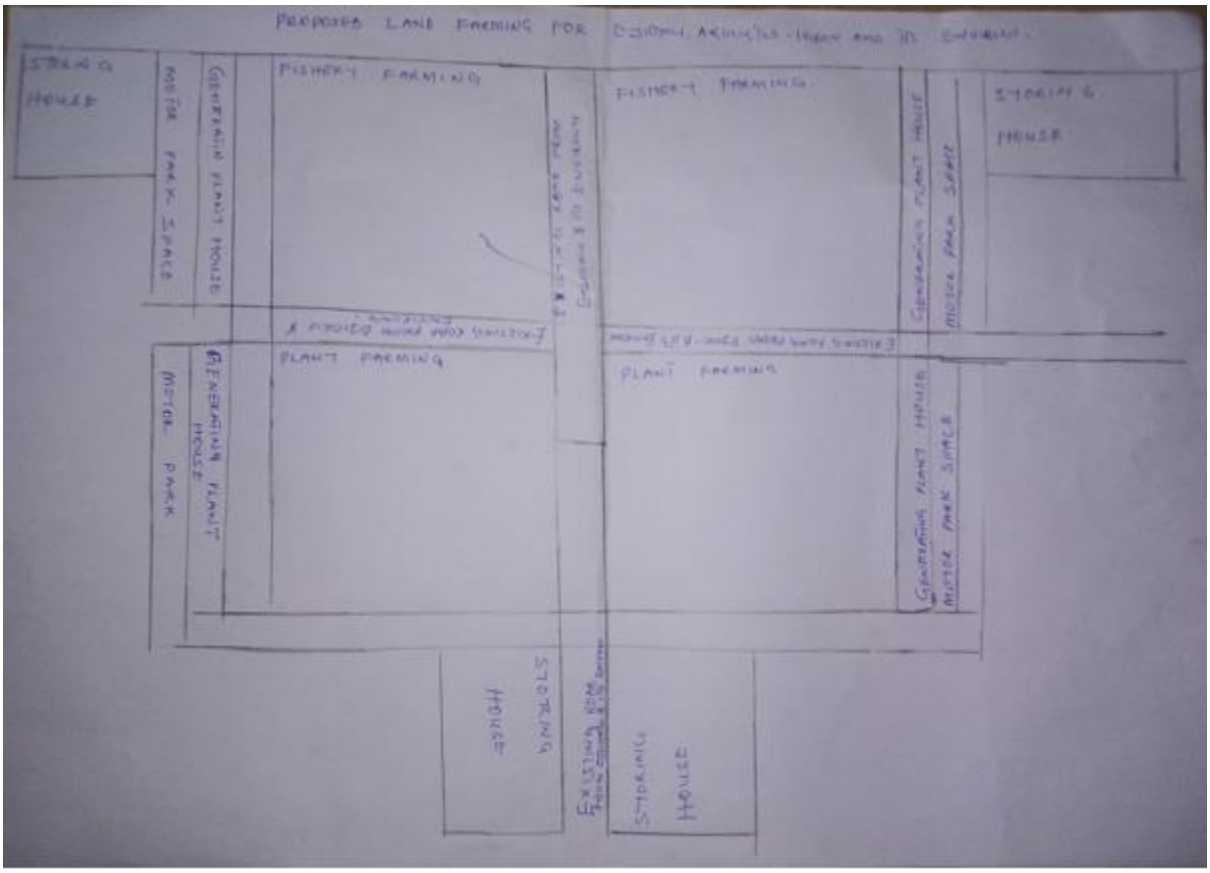


Fig.7.24 Mental Sketch Map of a Proposed Youth Community Farm Settlement Scheme. (Source: Fieldwork, 2021)

The graphical construction of space in Fig.7.24 was essentially a reproduction of the previous spatial production. However, graphical improvement was evident in the visual representation of this evolving agricultural spatiality. Evident on the map was the geometric ordering of space. As illustrated, mechanical rather than freehand drawing represented the bounded spaces. Therefore, the rectangular pattern predominated the visual expressions of their geographical imagination of the farm landscape. Similarly, textual signifiers pronounced and reinforced the intentions and meanings of space. As indicated, they undertook labelling with only uppercase lettering. EY did not add any other marginal information except a title. The title of the mental map was 'Proposed Land Farming for Ejioku, Ariku, Ile-Igbon and Its Environs'.

The development of these visual images from Fig.7.22 to Fig.7.24 reflected the influence of the graphic skills of EY and the previous fictional design. For example, the geometrical framework of four blocks and road network mirrored the previous mental map. It was a move from concept generation to concept evaluation in the propositional mapping of the scheme. Concept evaluation involved the process of assessing previous illustrative impressions to rework it to meet expectations (Brighenti, 2010; Banissi et al, 2014). In addition, apart from the imprint of his drafting skill, his idea of agricultural production and associated economic activities reflected in the evolving spatiality. As illustrated, the division of agricultural spaces into two zones of fish and crop farming. This was a clear continuation of his notion of agrarian landscape. Furthermore, the demarcated blocks reflected his idea of agricultural support services unexpressed visually in the previous map.

However, there were additional spatial features on the visualised agricultural space. As indicated, the inclusion of demarcated spaces for electricity and motor transportation. Participant EY, a young businessman, explained that the service blocks was specifically a product of joint deliberation. For instance, he did not refer to electricity generation at the conceptual stage of visualising this fictional landscape. As a leader in the EYDA, it seems there was deference to his drafting skills while the rest of the team projected their trajectories of agricultural imaginary through his visual expression (See Fig.7.24). The landscape reflected an adaption to the individual spatiality of EY. Thus, power relations were evident in this micro-geographic decision-making (Scott, 1985, 326).

Nonetheless, the imagined landscape evoked the collective identities of EYDA. Fig.7.24, as EY contends, was a collaborative effort. Participant EY reported that fifteen persons were involved in the planning of this imaginative geography (Interview, January 2021). The 15 persons included one person each from Aba-Afa and Sukuru villages. The other participants came from Ejioku, Ilegbon, Ariku and Elegbada (See Fig.6.1). Also, EY was ‘elected’ to draw, while the others discussed the various sections. Together with two members of the EYDA, I tried to make sense of the aspirational geography visually expressed on the new mental sketch map. For example, the EYDA members reflected on their concerns for residence, field practice, mechanisation, and storage. Some of these visualised themes unveiled the verbal geographies I had earlier discussed with EY as I have shown in Chapter 6. Without visualising, it was difficult to comprehend meanings of some verbalised claims of EY.

This visualised landscape embedded hidden meaning. For instance, they elaborated on the meaning of the label 'Plant Farming'. They envisioned planting cassava, maize, yam and potatoes on the farmland. Likewise, the 'empty' farm block reflected their ideas of the average farm size for an intending farmer. EY remarked that a young person, as aforementioned in Chapter 6, could easily handle and manage two acres (0.8 hectares) of farmland. They were not concerned about visualising these farm sizes but were interested in farm production. As Scott (1998, 27) observes, "The physical area a farm might comprise was of little interest compared to whether it would feed a particular family". Probably this influenced the indifference of the initiators of the Araromi CFS to discuss verbally the intended farm size. Thus, these subaltern cartographies are not concerned with visualising details of measurable logic.

Although an imagined landscape, these EYDA members were interested in exploring the opportunities of translating it into reality. For instance, there were discussions to create linkages of this agrarian imaginary with the actual geographical world. However, there were challenges to this locational geography evident on the visualised landscape. For example, I drew the attention of EY to the suggested locational geography of the participatory mental map considering the title. The roads labelled as 'Existing Road from Ejioku and its Environs' does not guide or direct the map reader where each road links. This challenge reflected the attempt to situate the fictional landscape into the local geographies of potential farmland. For example, I learned that the EYDA was proposing the location of the Youth Scheme at Yadiran village, but I learnt later they had considered Elegbada village (See Fig.7.1). It was apparent that potential farmland of considerable size was not available near Ejioku. This reflected Participant EM's observation at Edun village on going into the remoter hinterland to secure larger potential farmland. This discussion of the potential site seems to have contributed to the shape of the visualised space on the mental map.

Therefore, these EYDA members sought to use their cognitive knowledge to situate and assign the various spaces of the visualised landscape into the geography of a potential site at Elegbada village. For example, EY claimed, "the whole land is about 40 acres", but he was not sure about this (Interview, January 2021). This implied that the plan made was meant to fit about a '40-acre farmland' which the EYDA had been discussing before and during this participatory research. Hence, the visualised landscape had more information attached to it beyond what an 'outsider' could read. However, there was no unit of measure on the map. EY thought only a surveyor could get the actual measure of the farmland.

Regardless of working with local spatial knowledge of 40 acres, (16.16 hectares) the participants were still conscious of the need for 'accurate measure' of the land. Besides, this local spatial knowledge posed some challenges regarding the allocation of farmland to indigenes and outsiders. For instance, if the farmland was 40 acres, it suggests that the visualised blocks on the map will be 10 acres each. Hence, using the map EY explained that indigenes allotment would be 4 or 5 acres (1.6 or 2 hectares); outsiders will have 2 or 3 acres of farmland (0.8 or 1.2 hectares). Again, I drew his attention to the fact that if only 8 hectares (20 acres) was devoted to crop farming very few persons will be opportune to have allocated farmlands among the EYDA members and the outsiders. Later, these EYDA members revisited this conceptual evaluation of the CFS in Fig.7.24 at a participatory field observation at Elegbada village.

7.4.3 Concept Improvement: Transect Mapping, the CFS and the Rural Geography of Northeastern Ibadan Hinterland

A week after my engagement with EYDA members on interpreting the mental map, I set off with other EYDA members to Elegbada village (Fig.7.25). The aspirational geographies of EYDA expanded beyond what I had in mind. This propositional mapping exercise of a Youth Community Farm Settlement was initially an affair of EYDA. As shown above, participant EY eventually turned it into an affair of youths from several villages associated with Ejikou town. Ejioku was the leading township of 'Ward Four' in Lagelu LGA. Thus, it was not a township affair as I had earlier planned but became participatory geography of villagers and townsmen from surrounding communities. These reflected the interest in the collective workings of development in local geographies (Rigg, 2007, 46; Sletto, 2020; Wainwright, 2008). Therefore, there was a broader network of participants. However, only one woman was involved in the actual discussion, during the subsequent map interpretation. Indeed, no female participant was involved either in the visual mapping or in the field visit to Elegbada.



Fig.7.25 The centre of Elegbada village (Source: Author, 2021).

The geography of Elegbada village reflected the current lived experiences, opportunities and challenges in the remoter rural hinterland. For example, access to Elegbada village was only through one earth dusty road linking it from Yadiran and connecting it to Kusi village. At the village centre, are the school building and the Anglican Church to the left (See Fig.7.25). On the right are several residential houses – mud houses, a good number of which had already collapsed or were collapsing. However, there were other residential buildings in good habitable conditions. I observed that the village population was scanty similar to Odo-Oba. Nonetheless, considering the time of the day and the farming culture, (as aforementioned in Chapter 5) the farming population was already on the nearby farms. A later visit into the surrounding farmland confirmed several people going about doing the day's task on their farms. Nonetheless, the population of young people was small. Like Odo-Oba and environs, there was no regular transport service – even the use of the motorcycle, a common transport in some rural villages. Such was the remoteness of Elegbada village to the towns of Ejioku and Lalupon.

The EYDA had decided to proceed with a further examination of the available opportunities for a CFS. Hence, together with the EYDA and village members, I embarked on the transect mapping of the potential farm site. The purpose of the transect mapping at Elegbada village was to identify the problems and opportunities of the potential farmland to improve the propositional mapping (See Fig.7.24). Concept improvement, in the context of the CFS mapping, referred to a visual re-examination of previous design that resulted in incremental innovative changes in the design to improve the structural outcome (Brighenti, 2010). There was an

examination of the physical geography of the potential site to link it with the visualised landscape (See Fig.7.26). For example, we examined vegetation, the nearness of rivers and the size of the land. I observed that part of the potential land was a secondary forest with signs of former cultivation. In addition, an elderly man pointed in the direction of Rivers Okoseru and Gberinmi (See Fig.6.1 and Fig. 6.4).



Fig.7.26 Road to the potential farmland at Elegbada (Source: Author, 2021)

Then I raised the question of the actual size of the land. The elderly man and another villager claimed the farmland should be between 40 and 50 acres (Fieldwork, January 2021). Also, the cultural geography of Elegbada and its environs was studied to understand the connections and challenges of the imagined space with the material space. For instance, EY had earlier described and implied that these labelled roads would link Iyana-Offa, Kuta and Ilegbon. However, at the site, these depicted access roads will only link the main village road of Elegbada that leads either

to Kusi towards Ariku and Iyana-Offa to the west or Yadiran towards Ilegbon and Ejioku to the south (See Fig.6.4).

In addition, the transect mapping was a learning process for both the EYDA members and the facilitator (Krupar, 2015). At the proposed site, after transect mapping, I raised several questions about the visualised land-use planning. For instance, the issue of allocating the implicit farm holding of the proposed farm blocks. Several participants replied, with gestural performances where the farm holdings will be located within the designated blocks. Also, during this dialogue, an older resident and farmer at Elegbada village thought that the intended cropping plots could or would be extended into the block depicted as 'Fishery Farming' on the mental map (See Fig.7.24). His rich descriptive geography of the potential farmland encouraged new deliberations by the participants.

Indeed, there was the use of ephemeral maps in connection with this paper map as participants engaged one another as well as myself in discussions and enquiries. Hence, in this process there were consistently reproductions of Fig.7.24 by each participant to elicit and explain their different spatial thoughts. Thereafter, they deliberated on the geographical information from the transect walk. I informed them that they should attempt to re-orient and re-frame the participatory map to match the realities of the material landscape. Having observed the repetitive reference to Fig.7.24 by the participants during the transect walk, I decided to provide a photocopied map derived from Fig.7.24 for each participant to visualise their experience and personal improvement for the depicted landscape.

The photocopied maps explored individually their geographical imagination of the fictional landscape transposed into the real-world environment. Different modifications emerged in this individual designs, for instance, in Fig.7.27.Therefore, these photocopied images of space served "as components of creative process, as mediums of cognition, and as shapers of individual and social/cultural thought" (Marshall, 2007, 24). In contrast to the Araromi CFS, which preserved their agrarian imagination in spoken discourses and textual forms, the documented CFS imaginations of EYDA challenge the domination of visually-oriented modernist rural spatial planning. Besides, the transect mapping formed the basis of re-drawing the main map collectively several days later (See Fig.7.28 and Fig. 7.29). Thus, there was a modification to the initial fictional landscape of EY's agrarian imaginary.

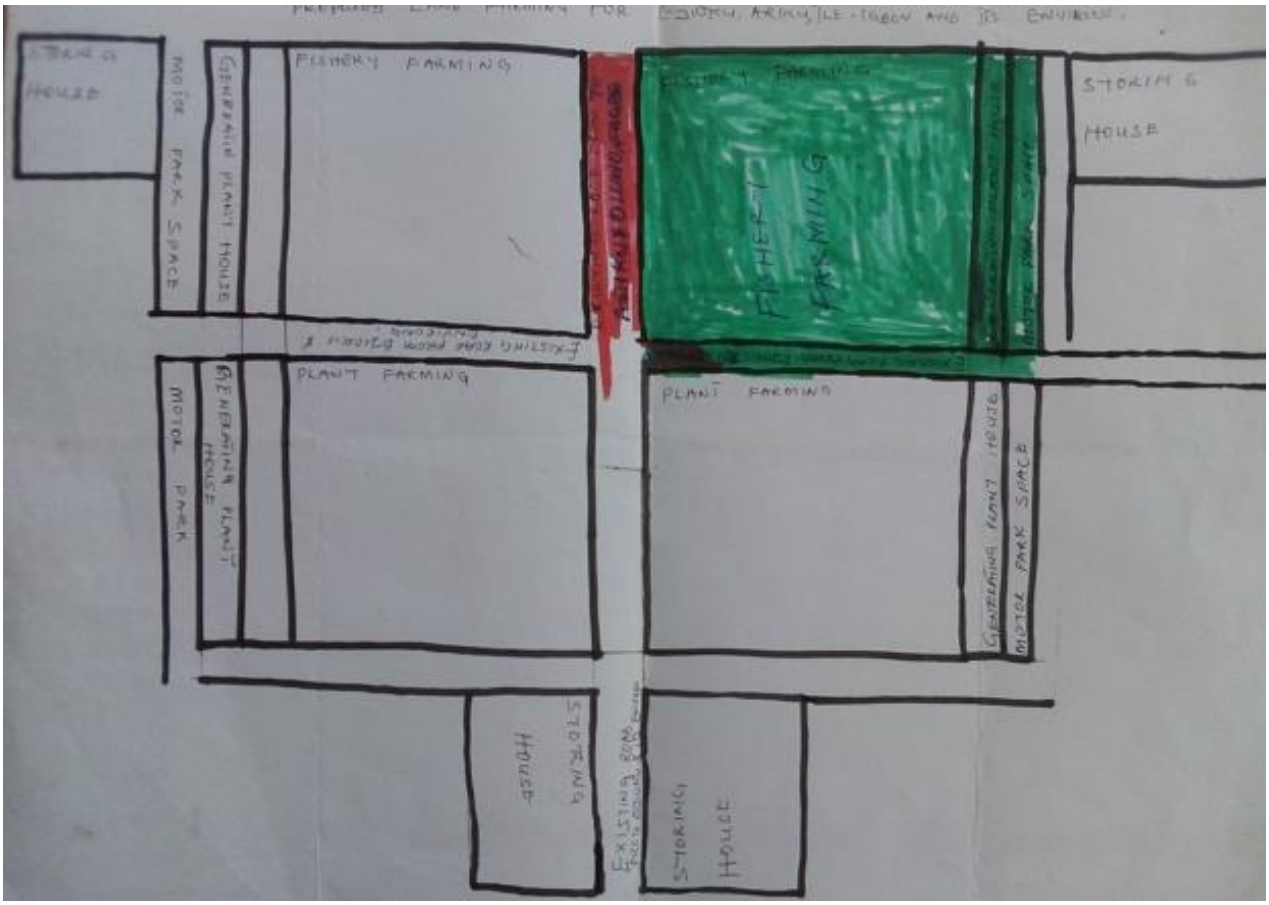


Fig.7.27 Mental Sketch Map by Participant Revealing an Individual Perspective

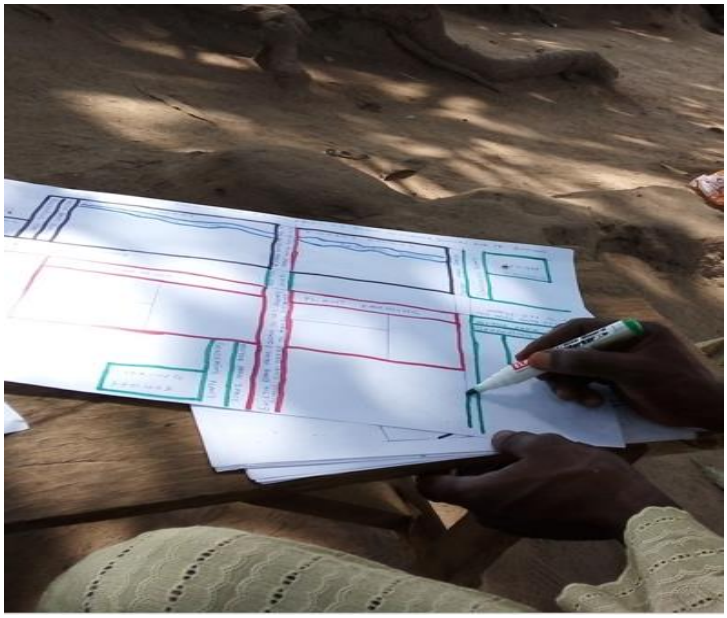


Fig.7.28 The Remapping of the Participatory Map. (Source: Fieldwork, 2021)

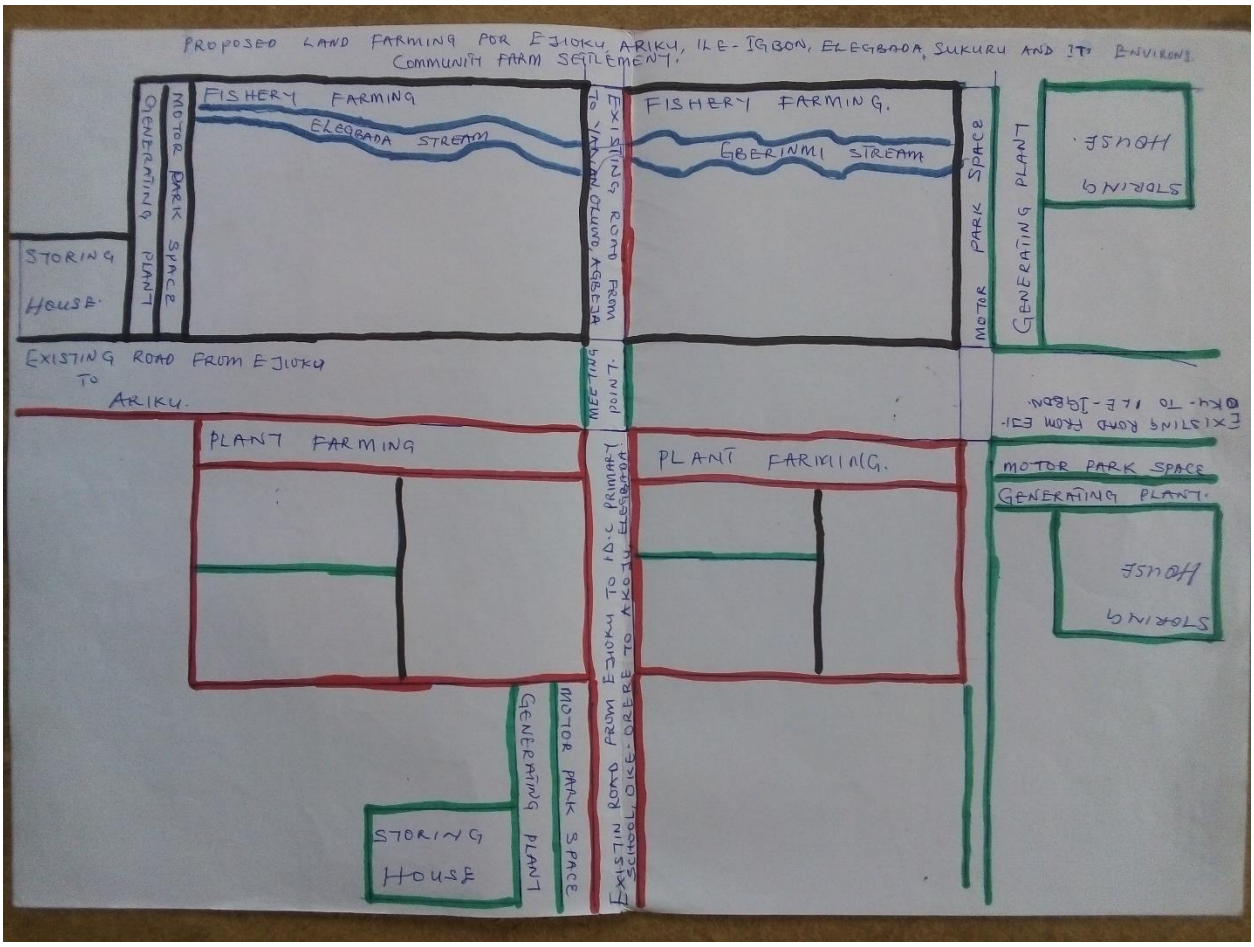


Fig.7.29 The Re-mapped Participatory Map of Youth Community Farm Settlement Scheme (Source: Fieldwork, 2021)

EY and another EYDA member carried out the reproduction of the map at Ejioku. The previous map (Fig.7.24) took a different shape and communicated new knowledges. The graphic representation reflected previous knowledges but also improvements. For example, the four farm blocks did not change, but there were new demarcations of space for farm holdings. The physical geography of the Elegbada was evident in the new geographical mental map. For instance, the Gberinmi stream, a tributary of the Osun River, was included at the upper part of the geographical mental map, revealing the map orientation as northwards (See Fig. 6.1 and Fig.7.29). Also, evident on the redrawn map was the cultural geography of the villages. For example, there were road linkage between Ariku and Ilegbon. Similarly, there was a road between these two aforementioned settlements and Ejioku (See Fig.7.29). However, the sense of direction suggested by these roads

reflected their perception of the geographical linkage of towns and villages in the rural hinterland that was confusing. This was a challenge of representation at different geographical and cartographic scales.

7.4.4 Local Geographies: The Limitations of Participatory Mapping

This participatory social mapping revealed the limitations and risks associated with participatory mapping and material cartographies (Cochrane et al, 2014; Sletto, 2020). Representing the geographies of the rural hinterland and potential farmland was a challenge to these EYDA members. Fig.7.29 held a combination of confusion and clarity simultaneously. For example, the reproduced map took a bi-dimensional nature of a locational map and a farm layout plan. EY tried merging the layout plan, (matched with the village geography of Elegbada), with the larger geographical knowledge of the rural hinterland of Ejioku and other villages. It was a memory distortion of different geographies combined and reproduced at a particular cartographic scale (Mark et al, 1999; Tversky, 1981). What was a serious geographical confusion to a well-informed map user seems a matter of making a descriptive clarity for these participants. However, it was clear limitations to participatory map-making.

There were also dangers of artefactual cartographies in community-based action in the process of visualising landscapes (Sletto, 2020; Woodward and Lewis, 1998). For example, these participants were trying to re-engage their understanding of the geography of the hinterland owing to these mapping exercises. For example, EY who had initially hesitated to reproduce his written list of farm-villages around Ejioku on the topographic base map as related in Section 7.1 above (Fig.7.6), decided to make a new map of Ejioku and the surrounding villages. These cartographic representations sought to imitate the abstract state knowledge of the scientific map without considering the implications of invisible sites (Anthias, 2019). As Pile and Thrift (1995, 44) observe that "Visual practices are regulatory, they demand that certain things are noticed, that other things are denied, and that other things are not seen at all".

By imitating small-scale state cartographic knowledge, EY was reproducing the invisibility of the everyday agrarian landscape (Brighenti, 2010). By way of example, there were spatial identities of existing farm villages around the towns, which remained obscured. Besides, there were also moribund CD agricultural projects, which echoed in the discussions on the economic geographies of towns and villages. In particular, the invisibility of these moribund CD projects

will only reinforce neoliberal denial of alternative and collaborative developmental visions in the hinterland (Fuchs, 2020; Harvey, 2005a). Nonetheless, the pressing challenge was communicating the political awareness of these alternative imaginaries on the post-colonial landscape. The challenge of communicating different views requires producing a summarised, integrated geographical knowledge at varying cartographic scales. To the subaltern classes, scalar representations were not that important. They saw the visualisation of the geographical landscape as a material aid to comprehend their CFS aspirations embedded in these spaces of everyday life.

7.5 Conclusion: Citizen Maps, Emancipatory Space and the Political Subject

In this chapter, I have deployed citizen-based mapping to contend that social cartography can serve as a form of counter-power to the hegemonic production of state-space. To do this, I have presented three key arguments. First, the communicative power of citizen maps externalised cognitive representations of everyday geographies of agrarian production. These geographical spaces (re)produced in citizen maps communicate the visible geographies of farm-villages on the contemporary agricultural landscape. Toponymic geographies remained a fundamental way of geographical sense-making on this landscape. These citizen maps contested the rationalist dismissal of memory recall as a means of spatial knowledge in the era of pointillism (Rankin, 2016). Also, there was a reflection of spatial awareness of the landscape in the mapping process. This awareness echoed in the notions of distance and direction externalised on the maps. Again, the frame of meaning for externalising this local spatial knowledge was the ongoing changes and developmental challenges in suburban and rural villages. Cognitive mapping fostered cultural geographies that made citizens reflect on environmental challenges as well as economic opportunities. Therefore, social mapping was a useful process in drawing attention to the geographical imagination of ordinary people on the rural landscape.

Second, citizen mapping served as a counter-imaginative practice that contests the misleading neoliberal narratives of state cartographies. The visualised reflections of counter-narratives unveiled the spatial awareness of realities in the local state-space that do not conform to the visual spectacle of neoliberal narratives of state maps. The actualities of derelict conditions of settlement schemes reinforced the well-known problems of infrastructure. Also, the spatial politics of the micro-geographies of farm holdings continue to inform the subtle resistances of farmers and local communities. It drew attention to subaltern resistance to the current geosurveillance of state

power. In addition, there are environmental implications of the expansion of farm-holdings that reflected the culture of the rentier state without an actionable policy of environmental care. Nonetheless, these contests of state narrative also revealed suggestions of improving this agricultural workspace reflecting agrarian subjectivities that dissent with the neoliberal logic of market. Again, there are divergent views on the management of the agricultural settlement scheme in state bureaucracies. Unlike the single narrative of neoliberal visualisations, there were still state bureaucrats that held on to a form of a welfarist model of the settlement scheme. They contest the increasing neoliberal rationality of 'entrepreneurial farm settlers'. Thus, citizen mappings of the subalterns are imaginative counter-geographies to the reproduction of state-space.

Third, deploying citizen mapping to visualise concepts and ideas clarified the vagueness of the notion of CFS in subaltern spatial thought. This propositional mapping of a community farm settlement unveiled the alternative spatialities, which are different from the normative spatial order of state modernist rationality. These citizen maps provided visual insight into verbalised claims of subaltern agrarian imaginary. In addition, citizen mapping afforded visual exploration of how to convert the fictional landscape into reality, facilitating the spatial evaluation of potential farmland. This was a social production of space involving the inner world – a revealing of 'self' and 'selves' involved in map production and reproduction. Again, citizen mapping provided social visibility to collective aspirations of local geographies, through a participatory process. As a participatory process, this visualisation of aspirational geographies revealed a synoptic envisioning of collective agrarian subjectivity. Therefore, citizen-based mapping as a planning tool in clarifying aspirational geographies of community-driven agricultural settlement schemes contributed to alternative knowledge production.

I have engaged in this chapter the discussions of citizen mapping through literature in cartography, postcoloniality and governmentality. This set of literature served as a frame of reference to examine and analyse these social cartographies (Sletto, 2020). I have emphasised from a cartographic approach, that citizen mapping provided a way of employing visual insight into issues of everyday life on the agrarian landscape. This adds to the cartographic literature in re-conceptualising mapping as a cultural practice (Edney, 2019; Kitchin and Dodge, 2007; Perkins, 2003). My analysis also contributes to the decolonising cartography through engagement with silenced voices and marginalised visions. This engagement with silenced voices involved exploring and unveiling subaltern spatialities of the farm villages and settlement schemes where

little research has been conducted in sub-Saharan Africa. This aligns with Harris's (2015) call for a critical engagement with postcolonial and decolonial work in cartography. Decolonising the state spatial narratives through visualisations of counter and alternative imaginations adds to the socio-cultural cartographic literature on postcolonial and decolonial thought. I have shown that citizen mapping can contribute to the reconfiguration of political subjectivity on the agricultural landscape (Crampton, 2010). This mapping involved exploring spaces of everyday practices of subaltern groups as technologies of the self. It affirmed not only Crampton's (2001, 702) questions of "resistance to power" and "strategies of cartographic opposition" that are "possible either with maps or against their disciplining tendencies" but also reveals cartography as one of the forms of power that could be employed from below for transformative reasoning (Satgar, 2021).

Visualising devices facilitate the comprehension of subaltern geographical knowledge production through materiality (Palmer and Lester, 2013). This materiality of maps manifests the importance of the notion of spatial resolution in the production of imaginative landscapes that emphasises the politics of perspectives and alternative dimensions inherent in subaltern geographies. I argue that visualisation unveils everyday spatialities that are forms of counter-narratives embodying subaltern geographies. Subaltern geographies are relational geographies of diverse positioning of individuals and collectives constantly reworked to speak to state power (Radcliffe, 2019; Rigg, 2007). I have shown from the citizen maps examined in this chapter that participatory social mapping provides visual devices to contest neoliberal narrative from diverse positioning of individuals and collective subjectivities. As Radcliffe (2019, 128) observes, "If subaltern geographies are to de-essentialize and contextualise marginalised positionalities, the practices and actions of individuals are key". Therefore, a constant reworking of agricultural spatiality from individual's visualisations negates the single narrative that disciplines and erasures subaltern agricultural subjectivities.

Likewise, the normative knowledge of scalar representations is unsettled with finer resolutions of space that lay bare knowledge of the economic landscape (Edney, 2019; Tyner, 2010). Resolution is the level of detail of an optical image, either fineness or coarseness. In the maps I examined I have shown that spatial resolution of citizen maps that narrate the problems and solutions of the landscape are unavailable to and unaccommodated in state cartographies. As Edney (2019, 226) affirms, "the concept of resolution is steadfastly imprecise. It is not defined by measurement or predefined categories. It is also applicable to maps of imaginary places and

topologically based maps, works that otherwise preclude the calculation of a numerical ratio of map scale". Hence, there is the need to pay attention to hidden forms of knowledge erased because of scalar representations of technically scaled maps.

Again, the visual images facilitate the discussion of alternative imaginative landscapes in local geographies (Marshall, 2007; Wright, 2011). Imaginative landscapes are human ideas evoked as mental images reflecting personal and social experiences usually but not always rooted in a physical portion of the earth surface. In the citizen maps I examined, the visualised space reflected individual and collective subjectivities eventually mirrored unto the biophysical landscape. As Lefebvre (1991, 39) argues that the representational space "which imagination seeks to change and appropriate", is passively experienced, but "It overlays physical space, making symbolic use of its objects". Consequently, imaginative landscapes are essential devices to sustain the comprehension of the shifting meaning of everyday experiences in the process of countering the political hegemony of the post-colonial state (Scott, 1985, 326).

Citizen maps are spaces of engagement, contextual and contingent, allowing a reworking of bounded space and exploration of imaginary worlds (Hynes, 2018). As Sletto (2012, 14) notes, "Mapping can be thought of as a space of engagement where social and spatial relations are reconfigured, and where representations of these relations will take a multitude of forms". I argue that different frames of meaning reflect self-expressed narratives, which unveil diverse contexts of subject-positions. Danesi (2004, 106) explains that context "provides the framework for encoding and decoding the message" in the communication process. I have shown from the citizen maps in this chapter that within the same physical landscape different contexts enframes subject-positions – actions, thoughts, feelings – that countered the single narrative of state-sanctioned agricultural imaginary. As Edney (2019, 224) notes, "Each map is not defined by the degree to which it reduces the world, but by its discursive function and context". Therefore, contextualised readings of citizen maps reveal hidden and alternative agricultural imaginaries of silenced voices.

In addition, the exploring of different contexts of community-based initiative draws attention to reinterpreting or reworking the notion of agricultural settlement scheme on the post-colonial landscape (Boone, 2021; Jaeger, 2015). Reworking refers to making changes to improve (Crampton, 2010). As I have shown in the latter part of this chapter that citizen maps offer visual frames of reworking the spatiality of the agricultural settlement scheme as a community-based initiative. As a planning tool, participatory social cartography was not, in the words of Crampton

(2010, 123), “fighting against the system” but a reworking of state produced space and state imposed spatial rationality. As a result, adaptive skills of indigenous and subaltern geographies complementarily explored through visual images offer pathways to re-imagine locally defined development.

Furthermore, the reworking of the notion of settlement scheme through visualisation of space ensures a further exploration of the imaginary world of the subaltern groups. Imaginary worlds are non-existing visual images of spaces not directly experienced but depicted as an expression of the desired goal (Hynes, 2018). Exploring fictional landscapes in this chapter by citizens in state-space and remote hinterland clarifies vague notions of subaltern imaginaries. As Tuan (1975, 211) observes, “Mental maps are imaginary worlds”. Similarly, Catling (1978, 123) contends, “Making a model of an imaginary place, the local area, and so forth, is another activity through which cognitive mapping can be expressed”. Therefore, ideas drive political action.

Citizen-based mapping also provides a space of aspiration that exemplifies political action that circulates ideas through technologies of signs to achieve a transformational mentality (Ettlinger, 2011; Satgar, 2021). I argue that the visualisation process in map-making is an important political action. Political actions are practical applications of beliefs to change, amend or sustain the management of human affairs (Blacksell, 2006). The response of citizens through toponymic geographies, unveiling realities of state-space and visually clarifying alternative forms of agricultural spatiality are political practices grounded in the landscape. As Springer (2016, 107) points out, “Action and speech require visibility because for democratic politics to occur, it … requires at least minimal participation, individuals must physically come together and occupy a common space”. Hence, as Robinson (2008, 266) notes the “formation of political interests” is entwined with “the politics of identity”. In this process of landscape making, social mapping become an important form of power to imagine, contest and envision landscape. It offers visibility of participants and visualities of individuals and collectives (Brighenti, 2010). Besides, Springer (2016, 109) notes that “The circulation of images, arguments, and ideas through various media, including individual actions carried out in private space, but gaining access to a wider public through the public sphere, can have important effects that may open or even close opportunities for political action”. Hence, performative practices are crucial in drawing political awareness to subaltern voices and visions.

In addition, the materiality of sign systems rendered visible the power of subaltern imaginaries (Palmer and Lester, 2013; Wood, 1992). Technologies of sign systems are methods of utilising "signs, meanings, symbols or signification" in political practices (Foucault, 1988, 18). Citizen maps are mental devices, as I have shown, that facilitates the expression of self-knowledge. As Montello et al (2018, 177) point out, "maps are mental devices, in part and their design greatly influences how they serve human understanding and behaviour". Besides, it offers subaltern groups an alternative form of acting upon themselves as a self-instituting practice (Kelly, 2013; Kippler, 2014). Visualisation through citizen mapping provides ways to produce, reproduce, manipulate and transform oneself.

Likewise, the visualisation of space contributes to transformational mentality (Van Leeuwen, 2005). Transformational mentalities are actions that seek to change or replace the forms and appearances through particular discourses of thought (Ettlinger, 2011). As I have shown above, citizen-mapping exercises encouraged new insights and new knowledges to emerge as subalterns engaged their cognitive development to challenge received spatial truths (Loomba, 2005; Marshall, 2007). This aligns with the contention of Ettlinger (2011, 552) that "Change toward a transformational mentality also requires…. citizen-subjects become enrolled in practices that cultivate reflexivity and open spaces of resistance". Hence, articulating aspirations through visualisation in citizen maps rework identities of place and subjectivities of persons (Massey, 1994; 2005).

CHAPTER 8 CONCLUSION: CARTOGRAPHIC IMAGINATIONS OF THE AGRICULTURAL LANDSCAPE

8.1 Introduction

In this thesis, I have argued that visualisation particularly cartographic practices provide insight into alternative agrarian spatial thought. The ongoing process of economic liberalisation of the agricultural space in southwest Nigeria has been deploying maps and other visualisations in the quest to secure the popular consent of the citizenry (Harvey, 2005a). This process seeks to displace previous notions of social welfarist development, particularly concerning the agricultural settlement scheme. In contrast, the cultural encounter of subaltern groups with the neoliberal logic has led to responses of counter-narratives and alternative social imaginaries (Fabricant, 2012). Unlike the visualised imaginaries of neoliberal development, the imagined futures of subalterns are verbalisations of space. This political-economic struggle of developmental visions mediated by spatial representations has drawn little attention in cartographic and development literature. From an engagement in Chapter 2 with spatial theory, the notion of postcolonialism and the concept of governmentality, I argue that the post-colonial space was a socially produced geography. Of particular importance was the implication of cartography in this social production of space. In Chapter 3, I have argued that representational practices of geographical knowledge production require a qualitative engagement to unravel social meaning and their socio-physical contexts. Hence, given the social practice of maps and mapping, there was a duality in visual power that requires critical historical reading and ethnographic work to engage.

I contend that visualisation could serve not only purposes of state-sanctioned neoliberal imaginaries, but also subaltern imaginations. Adapting citizen mapping as a cultural practice provides emancipatory knowledge unveiled from citizens' imaginaries (Crampton, 2010; Edney, 2019). These subaltern imaginaries are in response to the one-dimensional narrative of neoliberal capitalism adopted by the post-colonial state. In this conclusion, I present answers to the research questions raised in Chapter 1. Hence, I highlight the visualised landscape as a contribution to knowledge, the significance of visual geographies in social imagination and the role of mapping practice in the visual narrative of the agricultural development process.

8.2 The Visual Landscape of the Post-Colonial Agricultural Economy

Map as a form of knowledge unveiled diverse spatial thought of state-sanctioned capitalist visions and subaltern imaginaries. The visual logic of spatial ordering on the agricultural landscape exemplified the work of state cartography producing and governing space in Yorùbáland. These taken-for-granted geographical knowledges of state maps, under critical scrutiny, are subjective practices and social constructions (Crampton, 2001; 2010). This cartographic production of space reflected objectifying gaze, modernist framing of the political economy, dichotomous space, and marginalised visibility of agrarian identities. In the first part of Chapter 4, I selectively examined nine State maps in the colonial period showing how these imaginations of space emerged in the territorialisation process. The objectifying gaze appropriated indigenous spatial knowledges for the economic benefit of capitalist modernity while initiating the cartographic legacy of the modern political state. Again, the modernist logic of the capitalist market utilised visual political-economic framing of the landscape to reinforce the superiority of the governing classes. In addition, dichotomies became a hallmark of the historical geography of capitalism as evident in the bifurcation of space and its urban bias for mapping. Therefore, a space of difference emerged from the cartographic marginalisation of the rural landscape (McEwan, 2019).

The governing of space using maps as an everyday administrative tool heralds the statist vision of social engineering on the rural landscape (McGowan, 2014; Scott, 1998). Using ten maps in the second part of Chapter 4, I showed the cartographic vision of spatial scientists and the governing class to transform the rural Other to a modern subject in the late colonial and early post-colonial periods. This statist vision of spatial order on the landscape emerged from the visual frame of seeing and thinking about its problems and the solutions. Besides, visualisations legitimised the process of reforming the Other (Sibley, 1995). Hence, the production of state-space was a social construction that persists in the contemporary post-colonial state.

Reproducing space through multiple landscape representations remains an ongoing contest in southwest Nigeria between the legacy of colonising power and resurgent subaltern imaginaries (Sidaway, 2000). Therefore, the spatial perception of the agricultural landscape was a site of struggle (Crampton, 2003; Wood, 2010). It was evident that the modernist world picture of the landscape sustains dominance through disciplinary knowledges of the sciences, social practices such as educational indoctrination and the active construction of popular consent (Benjaminsen, 2021; Olwig, 2009). This modernist legacy of spatial production relied mainly on small-scale

maps in the visual and discursive imagining of space. In contrast, the subaltern picture of the landscape drew heavily on indigenous spatial knowledge characterised by plural logic of use, individual agency, social organisation and adaptive mechanisms to dominant systems, which reflected locally defined development in moments of cultural economic encounter. I have argued in Chapter 5 that hybridised conceptualisations of the landscape are emerging in response to neoliberal agricultural imaginary. These subaltern visions have to contend with neoliberal state cartographies that are unpretentiously involved in promotional politics and sustained by a state cartographic machinery primed towards advertising the state, which byproduct was disinformation about the agricultural economy (Dodge, 2008; Olwig, 2022; Radcliffe, 2012).

Reproducing the statist agricultural landscape in Northeastern Ibadan rural hinterland relied on the conventional state maps. Although outdated, these pictorial representations of this local geography reproduced silences and anti-political economic imaginations of subaltern agriculture. State-sanctioned neoliberal claims of the inevitable developmental path, as I have explored in Chapter 6, exploited the defects and sensory effects of these authoritative knowledges. Hence, the visual discourses of neoliberal agricultural imaginary sought to rectify this failure by displacing welfarist notions of material development (Fabricant, 2012; Woods, 2011). The entrenched visualisations of social welfarist modernity emphasised identifying material lack in communities and proffering instrumental solutions. However, the emerging subaltern responses to neoliberal imaginary and state-centric social welfarist visions reflected concerns with actual realities of space and existing opportunities on the cultural landscape. These realities and opportunities are evident in the counter-narrative of state-space and verbalisations of alternative spaces of community-owned farm settlement schemes. Hence, engaging spaces of exclusion and neglect revealed oral imaginaries of subaltern groups, as political-economic struggle that envisioned alternative landscapes.

The visualisation of space in Northeastern Ibadan hinterland drew attention to externalising cognitive representations, counter-narratives of neoliberal logic and visual insights into the notion of the community-owned farm settlement scheme (Kitchin, 1994; Marshall, 2007; Ott and Aoki, 2004). I have examined in Chapter 7 three practices of counter-maps employed by subalterns that transformed verbal conceptualisation of the agricultural landscape into visual forms. Externalising cognitive representations of space drew attention to marginalised geographies of the everyday rural economy. It also revealed human imaginative capacities evident in spatial intelligence and spatial

abilities concerned with neglect and opportunities in rural hinterlands. Although citizens in state-spaces share the subnational state's spatial perceptions of the agricultural landscape, there was a marked difference in their logic of using space. Rentier state policies are not pleasant imaginaries for citizens where the environment experiences rapid degradation with serious risk to human life (Anugwom, 2020; Harvey, 2005a). Therefore, the contrasting world pictures of state imaginative geographies and subaltern geographies drew attention to the subtle, everyday resistance to state power. In addition, clarifying the reinterpretation of the agricultural settlement schemes beyond state modernist rationality revealed visual insights into subaltern spatial thoughts, particularly the conceptual and adaptive character of subaltern cognitive development. Citizen mapping, as a technology of the self, drew attention to knowledge production and this transformative insight of the plural logic of the agrarian social space.

8.3 Visual Geographies and Alternative Futures

Visual geographies have significance in social imagination that sustains solidarity amongst subaltern groups. Hidden and alternative economic imaginaries become more relevant through visual geographies in a visually conscious social world (Rose, 2013). Visual geographies are visible material images used in the comprehension of geographical activities. Schlottmann and Miggelbrink (2009, 6) observe that the concept can "be defined with regard to the role of the visual in the study of spatial issues: research perspective focusing on the visual dimension of geographical issues" (Schlottmann, 2017, 1). In addition, their critical reflection on visual geographies drew attention to the concept as a material product and in the context of everyday practices of doing geography. I have shown in the thesis that state power relies on the pictorial representation, be it analogue or digital, to make sense of the post-colonial space economy.

Similarly, I have argued that subaltern groups can equally employ pictures of space to address issues of development. Specifically, alternative production of economic imaginaries emerges and are translated into a material product through citizen mapping (Sletto, 2009; 2012; Wainwright, 2008). However, these material forms of unveiling spatialities complement mental and linguistic images of subaltern imaginations. As Rose (2013, 70) notes, "it is quite hard to think of a visual image that is not accompanied by language in some form". The knowledge claims of these subaltern geographies are a complementary form of visualisation, which have always been

evident in precolonial, oral societies. Nonetheless, the difference in emergent maps of state power and subaltern groups is a function of varied cognitive worlds.

Maps as visual geographies of knowledge claims on the post-colonial economic landscape are competitive cognitive worlds (Down and Stea, 1973; Kitchin 1994). Cognitive worlds are socially centred ways of constructing space and place-based knowledges framed on individual or collective experiences of physical reality. State cartographies, as fixed spaces, explored in this thesis facilitate disciplinary power and othering practices that led to hidden geographies of subaltern economies (Driver, 2012). However, regardless of their hiddenness, the fluid spaces of subaltern geographies are emergent in reworking the economic landscape. These emergent spatialities were evident in the emotions, meaning and memory embedded in the everyday experience of the agricultural space. As Wright (2012, 1116) contends in her notion of emotional geographies that they are "not purely personal feelings that lie within stable, coherent subjects" but are relational, "found in between people, and in between people and place". Indeed, this positioning in society defines spatial consciousness, which is evident in varied individual and collective cognitive maps (Harvey, 2001, 221; Massey, 2005). The cognitive development of subalternity is essential to contest the disciplinary power of a single economic narrative and conventional idealisation of the post-colonial landscape. Therefore, there is utilisation of these cognitive images to articulate personal and collective geographies of development.

Maps as visual geographies have the potentials of utilisation to contest and rework the contrasting logics of economic systems drawing attention to the value of alternative spatial thought as mental and material devices (Montello, 2002; Schlottmann, 2017). The utilisation of maps exposes spatially related challenges and opportunities in several dimensions as performative practices. As these mapping processes are responsive to ongoing social struggles, they epitomize a critical element in post-representational cartographies of the ontogenetic becoming of subaltern spatialities (Kitchin and Dodge, 2007). As Edney (2019, 40) argues that

> The consumption of maps, the multitude of moments when their meaning is fixed, is not a passive absorption of information but an incorporation of the map into actions, and those actions further carry meaning and shape the meanings accorded to the map. So, maps are themselves of multiple forms and map consumption is a performance.

I have utilised citizen maps in this thesis to draw attention to geographies of everyday agrarian spaces, counter-geographies and aspirational geographies, which confer on map and mapping as a human practice. Harvey (2001, 232) notes that there are potential in forms of geographical knowledges "to express hopes and aspirations as well as fears, to seek universal understandings based on mutual respect and concern, and to articulate firmer bases for human cooperation in a world marked by strong geographical differences". The potentiality of the map to add a visual insight into an economic landscape is a rich human practice. Hence, as a human practice, maps that emerge from the context of political-economic struggles on the post-colonial landscape must be understood as part of the ongoing challenge of defining development from below (Anthias, 2019; Hohenthal et al, 2017; Sletto, 2020).

Visual geographies in the context of self-defined development unveil multiple positioning of subaltern imaginaries that undo the single narrative of neoliberal cartographies of inevitable development path. The context of self-defined development refers to a frame of meaning that understands progress as material change entwined with social values that are also place-based and relational (Briggs, 2013; Lawson, 2007). The circulation of these place-based knowledges is crucial in the politics of economic visibility that counters the stigmatising and blaming of rural citizens and subaltern agriculture (Wacquant et al, 2014). Visual depictions can draw attention to ignored features in the visibilising strategies of state cartographic power (Schlottmann and Miggelbrink, 2009, 8).

These visual geographies are dimensions of unique spatial discourses of subaltern alternative futures that are important in countering the economic myth of the inevitable path of neoliberal development (Edney, 2019, 42; Massey, 2005). As Harvey (2001, 233) contends, "Geographical knowledges can become vehicles to express utopian visions and practical plans for the creation of alternative geographies". The striving for self-defined development in the post-colonial state requires citizens in local geographies to rework spaces and landscapes. Therefore, a symbolical appropriation of the post-colonial landscape through semiotic strategies can make "it possible to use the physical image to deduce unreflected mental images and typical interpretations of images" (Schlottmann and Miggelbrink, 2009, 8). The conceptual images of the aspirational economic landscape are features of development narratives in poorly visible rural spaces.

8.4 Mapping Practice and the Politics of Visibility

There are three contributions of this thesis to sociocultural cartography; first the critical cartographic deconstruction of the post-colonial economic landscape. Second, it highlights the continually reinterpreted traditional agrarian spatial thought mediated by hybrid representational practices. Third, it makes visible and tangible voices and visions of alternative agricultural imaginary through hybrid map production. In particular, this visibility and tangibility contributes to the strengthening of the CFS imagination. Striking a balance between representational credibility and context-dependent problems (Fox et al, 2005) requires the employment of an integrated picture of the agricultural landscape. Therefore, I considered adopting a hybrid form of map production as discussed in Chapters 2 and 3, which harnesses the strength of technical and sociocultural approaches (Cinnamon, 2014).

The first part of the CBM reflected this hybrid knowledge production. For example, the markings of village place names on topographic base maps combined existing map information and cognitive knowledge to (re)produce the geographic space. This highlighted the centrality of the visual prompt such as a base map in capturing geographic knowledge. Besides, it emphasised the relevance of toponyms in the understanding of the spatial reality of rural and agricultural folks as I have aforementioned in Chapter 5. Again, the freehand drawings of the CBM exercise featured another hybrid production of knowledge. For instance, there was the combination of spatial objects drawn on paper and the embodied performance in the representation and communication of geographic space (Perkins, 2003). Rarely any participants who drew sketch maps did not express bodily and vocally the spatial knowledge they tried to convey. This underscores the arguments for the importance of bodily geographies in experiencing reality, while the materiality of maps only served to visualise and complement that fundamental mode of communication (Palmer and Lester, 2013).

Another key contribution of the CBM in this thesis is the proposition of alternative worlds in experimental topographical maps. How do we summarise and provide an integrated picture of these different subaltern viewpoints? These spatial thoughts of local agricultural development are always shifting, but visual geographies of Northeastern Ibadan landscapes will endow this specific spatial discourse with coherent semiotic stability (Edney, 2019). In this thesis, I have shown the visibilising of Othered knowledges, visual forms of counter-narratives and alternative futures as constitutive elements of the agricultural politics of visibility in Northeastern Ibadan rural hinterland. Integrated map-making brings together these several visualisations of spatialities. One

way of doing this is to experiment with design opportunities of an integrated form of mapping – the topographic maps. Experimenting offers alternative worlds (Harley, 1990; Hynes, 2018). As Harley (1990, 16) argues "Cartography, we see, is never merely the drawing of maps: it is the making of worlds". One of the ways he suggested doing this was through an alternative world in the topographical map. He contends that:

> It is only the topographical map that can inscribe the gestalt of the ordinary landscapes of the world. It is only the topographical map that is intelligible and available to a larger proportion of its citizenry. A topographic picture — an integrated picture — of environmental and social conditions and a topographical record of salient cultural legacies are vital adjuncts to the art of living and to the making of decisions (Harley, 1990, 17).

Hence, I propose, we shift into a citizen-based map production that the subnational state can engage. This is a proposition whereby mapmaking will aid the developmental visions of CBOs and development practitioners through citizen-based geographic information in technical maps, in the context of development from below (Sletto, 2020).

Why does an alternative world in a citizen-based technical map matter? At the State Government Secretariat, a deputy director had asked me, "what could this research add to our [MANRRD] knowledge of the agricultural challenges in that area?" Again, another deputy director had queried, "what sort of documented knowledge can we [MANRRD] gain from the events in that place [study area]?" An everyday reality of citizens in the post-colonial state is the continuous interaction with the local state in terms of the material development of the biophysical landscape. Indeed, this was a recurring concern of the subaltern groups during the CBM exercise. The participants were concerned with engaging the state regarding their rural developmental visions as I have pointed out in Chapters 5, 6 and 7. Hence, there was the need to engage not only the CBOs but also the subnational state through documented spatial information reflecting citizen-based data. This requires a balance in the presented spatial product. For example, I experimented with a set of citizen-based topographic maps as visual narratives of developmental visions in the Northeastern Ibadan hinterland.

One of these experimental maps, Fig.8.1, depicts the Northeastern Ibadan agricultural landscape. What narrative is revealed in this alternative world of the citizen-based technical map? Three features of prominence on this particular map were farm villages, moribund farm projects and proposed community-driven farm settlement schemes. They summarise and visualise the

concerns, hopes and aspirations of the rural residents. As Gerlach (2014, 28) notes, “the deployment of a cartographic method is intended to generate pathways of becoming and existing”. Giving prominence to these geographic features ensures that this topographic map design facilitates speculative cartography, an ever-shifting propositional logic on the landscape. Social meaning construction stressed in the map design made visible spaces of neglect and aspirations. Therefore, for instance, the visibility of the propositional agricultural settlement scheme contributes as a counterpoint to the neoliberal logic (Harvey, 2005a, Krygier and Wood, 2016).

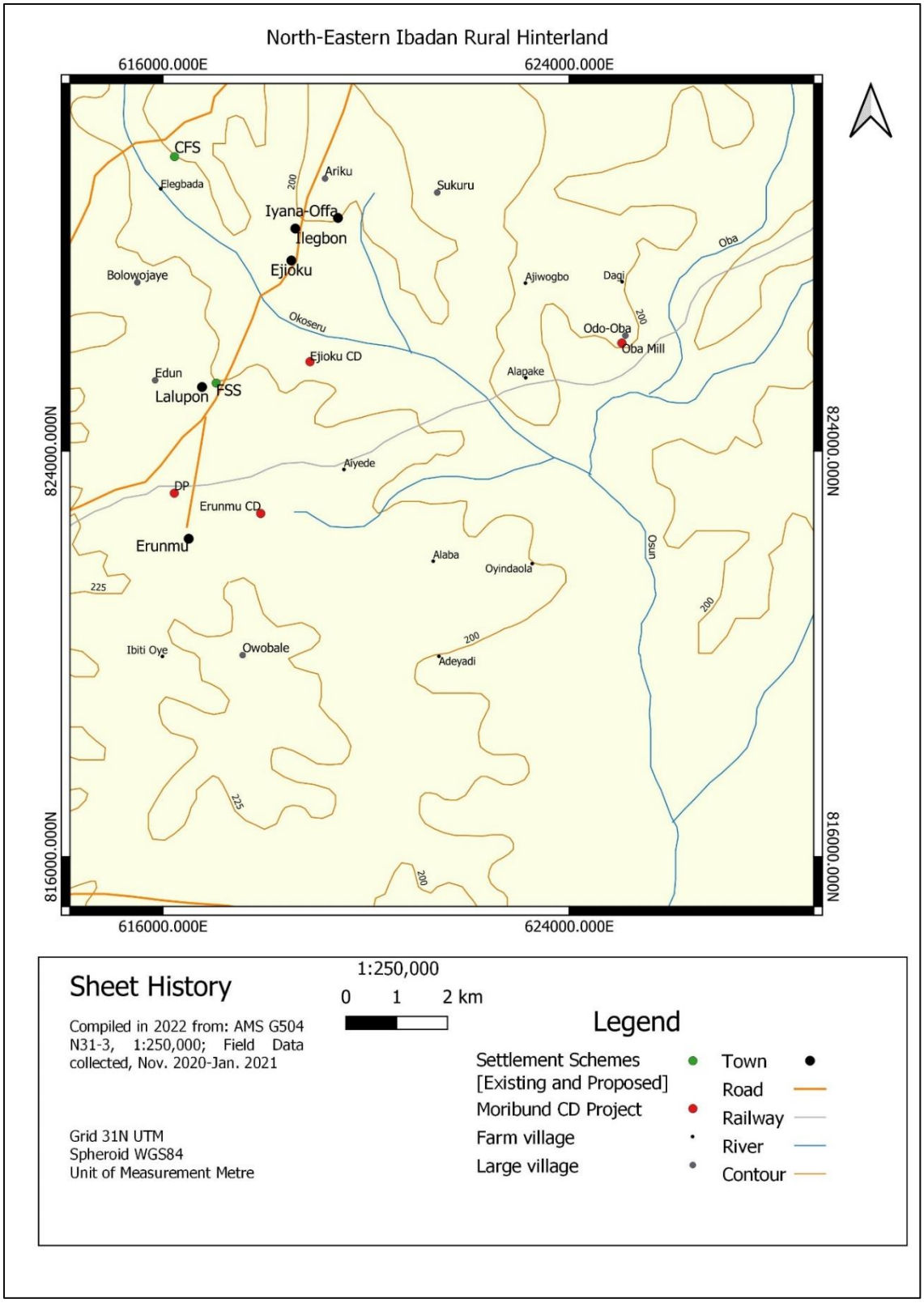


Fig.8.1 Experimental Topographical Map of Northeastern Ibadan Rural Hinterland Scale: 1/250,000. Source: Author

The graphic production of Fig.8.1 highlighted the basic landform structure of topographical and hydrological features. The cultural features stressed the settlements and sites of developmental projects. For instance, there was the prominence of four towns, three of which are the case study area. The fourth town is the local government headquarters. Scattered around the depicted landscape are several villages. For instance, attention to design issues of visual hierarchy and colour distinguishes the presence of these villages from the towns (Tyner, 2010). The development projects depicted include existing, proposed and moribund projects, mainly located near the main road but there are outliers at Elegbada in the west and Odo-Oba in the east. For instance, bright colours depict the moribund agricultural projects drawing attention to these spaces of neglect. Likewise, the symbols and colours indicated the agricultural settlement scheme emphasising counter-narratives of neoliberal agricultural imaginary and the ever-shifting actual realities in state-spaces of agricultural production. Of particular importance is the proposed settlement scheme. Northwest of Fig.8.1 is Elegbada village and the label CFS. This village and the typography highlight the reinterpretation of the agricultural settlement scheme as discussed in Chapter 7. The distinctive symbolisation emphasises an alternative future in the agricultural landscape.

Why was there the portrayal and selectiveness of the farm villages? The portrayal of the villages stressed their continued impact on the livelihoods of the people and the socio-spatial practices of the rural populace. In addition, they still form the framework of agrarian spatial thought amongst the citizens. However, the selective representation on the map highlights the most frequently mentioned villages amongst participants in Northeastern Ibadan rural hinterland. Besides, the selected villages emphasised the ongoing transformation of farm villages into residential villages with the farming community and the reversion of residential villages into deserted farming villages. I have highlighted this synchronous process in Chapter 7. This fluidity of events emphasises dimensions in the historical geographies of farm-villages.

Again, why the portrayal of the moribund farm projects? The abandoned developmental landscape emphasised the strengths and limitations of social welfare development (Woods, 2011). In addition, these moribund projects highlight the central interest of the participants in their engagement with the post-colonial state in this particular rural developmental history. Again, they reflect the specific imaginations of the older generations in the communities, stressing the developmental narrative oblivious to the current generations. In contrast, the younger population

desires to create new projects supported but not controlled by the state. Similarly, the visibility of these defunct projects highlights the eagerness of rural citizens for development and the serious support of a sincere governing class in the past, which is required in the present and future to develop rural spaces. Furthermore, it emphasised the fundamental challenge of rural development projects – sustainability (Briggs, 2013; Eicher, 2003; Fabricant, 2012). Community-owned scheme reverberates amongst participants, as I have shown in Chapter 6, as a way forward from this challenge.

Hence, the portrayal of the proposed CFS highlights locally defined development, agricultural hybridity and continued practices of *Agbe Oko d'Oko*. The depiction of the CFS stresses the existence of a locally defined agricultural model in rural areas (Adesina, 2012). In addition, the portrayal of this locally defined vision highlights a dimension of economic hybridity on the agricultural landscape (Briggs, 2013; Fabricant, 2012). There is a simultaneous re-interpretation of the modern farm settlement and the rebranding of a traditional farm practice to create a hybrid logic of outlying farm production centred on sustainable smallholder agriculture with the benefits of modern technologies (Atteh, 1980). Besides, it emphasises the role of *Agbe Oko d'Oko* in the rethinking of the economic landscape in the past and its continued influence in the imagined futures of the rural hinterland (Ojo, 1970; 1973).

The integrative picture of a topographic map emboldens the developmental vision and its narrative. This narrative can aid the revamping and reworking of the agricultural scheme in public dialogues between CBOs and state officials in the Northeastern Ibadan rural landscape. In the performance of visibilising agrarian spaces, this map defines itself as an epistemological device, continuing the conversations of spaces of neglect, stressing spaces of aspirations and not disregarding indigenous agrarian spatial thought in developmental practice. The visibility of these silenced features of the agricultural landscape "engenders not just deterritorialisation, but reterritorialisation too" (Gerlach, 2014, 29). These experimental topographic maps do not override the value and importance of the hand-drawn maps but serve as complements in these visual narratives. Together, these citizen maps and citizen-based topographic maps are not determinants of realising these local developmental visions but have a particular role as visual complements of the spaces of aspiration and hope voiced verbally in everyday life (Adesina, 2012; Nayak and Jeffery, 2011). These spatial perceptions of developmental visions, transformed into concrete

form, consistently alert us to the cognitive world of subaltern groups in the usually neglected rural hinterlands of sub-Saharan Africa.

As I have argued in Chapter 7, social mapping provides a visual avenue to contest, rework and renegotiate the social production of space. The engagement of alternative agrarian spatial thought provides a way to engage citizens in the reinterpretation of modern agricultural space. For instance, as I have shown in Chapter 7, farmers in Lalupon Farm Settlement Scheme employed maps to rethink and rework the state-space to manifest an agricultural landscape preferable amongst subaltern groups. Similarly, there is the use of the notion of *Agbe Oko d'Oko* to rethink and rework modernist spatial mentality as exemplified in the proposed Ejioku Youth Community Farm Settlement.

Nonetheless, these mapping practices are still restricted to the Western scientific model of spatial production (Bryan, 2015; Sletto, 2020); hence, there is still the challenge of expressing the cognitive knowledge of the farming space by subaltern groups in the rural hinterland. This restricts the level at which the original conceptualisation of *Agbe Oko d'Oko* can be modified and translated into actuality. For example, there was a form of unseen, subjective symmetry in the scattered plots of the traditional farm village, despite its fragmentation but not based on Western geometric contiguity. In addition, the conversion of mental and oral representations of space into visual form involved strengths and limitations. A fundamental gain of these hybrid-mapping practices was that they provided a spatial rethinking of farm villages, which formed the visible spatial frame of the CFS. However, there are restrictions to these visual forms of the modified farm village. For instance, the varied small spaces of personal and collective use in the traditional farm villages are lost in the visualised smallholder farming space of the CFS.

Therefore, future studies need to explore how social maps and mappings can organise existing oral practices, stimulate vague conceptual images and visualise these alternative agricultural futures among the rural and suburban subaltern groups. Again, there is a need to engage further in this form of hybrid social mapping in the rural hinterland to uncover ideas of space and their continuous modification from the subaltern's perspectives. Engaging these themes raises questions and finds answers in exposing ongoing legacies of agricultural politics of visibility. Such explorations can provide further insight into alternative agrarian spatial thought in emergent spaces of anticipatory economic cartographies.

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APPENDICES

Appendix 1: Consent Form

Adult

Interviewee Name:

Date:

Location (Village / Town):

Project Explained (Yes/No):

Participant agreed to notes to be taken during Interview. (Yes/No):

Participant agreed to Interview to be audio-recorded. (Yes/No):

Participant agreed to direct quotes. (Yes / No):

Participant agreed to quotes, which would not identify them? (Yes/No):

Participant is not to be quoted at all (Yes/No):

Participant agreed to the use of information after the project for academic purposes: (Yes/No)

Signature of Researcher [Babatunde Adedayo Ogundiwin]
(Signed in the presence of the interviewee to confirm oral consent):

Appendix 2: Consent Form

Youth

I, …….., agree to participate in this research project. The research has been explained to me and I understand what my participation will involve. I agree to the following:

(Please circle the relevant options below).

I agree that my participation will remain anonymous	Yes	No
I agree that the researcher may use anonymous quotes in his / her research report	Yes	No
I agree that notes can be taken during the interview	Yes	No
I agree that the interview may be audio-recorded	Yes	No
I agree that the information I provide may be used anonymously after this project has ended, for academic purposes.	Yes	No

…… (Signature)
…… (Name of Participant)
…… (Date)

Babatunde A. Ogundiwin
…… (Date)

Appendix 3: Participant Information Sheet

School of Geography, Archaeology and Environmental Studies

Participant Information Sheet
Government Farm Projects and Government Farm Settlement Scheme

Dear Sir / Madam,

My name is Babatunde Adedayo Ogundiwin and I am a PhD student in School Of Geography, Archaeology, and Environmental Studies at the University of the Witwatersrand in Johannesburg. As part of my studies, I am researching the use of citizen-based mapping in northeastern Ibadan rural hinterland (Lalupon and environs) for empowerment and expansion of community-based farm settlement schemes.

As part of this research, I would like to invite you to take part in an interview. This activity will involve conversations on government farm projects and government farm settlement scheme in this area. If you are comfortable with it, I will appreciate if I can audio-record some of the interview using a digital device so that I can have a record for my research.

Although I would not be able to compensate for this time, I would appreciate thirty minutes of your time for this activity. The interview will be completely confidential and if I use any of this discussion in any research report it will remain anonymous.

If you have any questions during or afterwards about this research, feel free to contact me on the details listed below. This study will be written up as a research report which will be available online through the university library website. If you wish to receive a summary of this report, I will be happy to send it to you (optional). If you have any concerns or complaints regarding the ethical procedures of this study, you are welcome to contact the University Human Research Ethics Committee (Non-Medical), telephone +27(0) 11 717 1408, email hrec-medical.researchoffice@wits.ac.za

Yours sincerely,
B. Ogundiwin

Researcher:
Babatunde Adedayo Ogundiwin, 1807179@students.wits.ac.za, (+277) 065 321 1251

Supervisor:
Dr. Alex Wafer, alex.wafer@wits.ac.za, +27 11 717 6517

Appendix 4: Participant Information Sheet

School of Geography, Archaeology and Environmental Studies

Participant Information Sheet
Farm Village and Community-Owned Farm Settlement Scheme

Dear Sir / Madam,

My name is Babatunde Adedayo Ogundiwin and I am a PhD student in School Of Geography, Archaeology, and Environmental Studies at the University of the Witwatersrand in Johannesburg. As part of my studies, I am researching the use of citizen-based mapping in northeastern Ibadan rural hinterland (Lalupon and environs) for empowerment and expansion of community-based farm settlement schemes.

As part of this research, I would like to invite you to take part in an interview. This activity will involve conversations on indigenous farm-village and community-owned farm settlement schemes. If you are comfortable with it, I will appreciate if I can audio-record some of the interview using a digital device so that I can have a record for my research.

Although I would not be able to compensate for this time, I would appreciate thirty minutes to forty-five minutes of your time for this activity. The interview will be completely confidential and if I use any of this discussion in any research report it will remain anonymous.

If you have any questions during or afterwards about this research, feel free to contact me on the details listed below. This study will be written up as a research report which will be available online through the university library website. If you wish to receive a summary of this report, I will be happy to send it to you (optional). If you have any concerns or complaints regarding the ethical procedures of this study, you are welcome to contact the University Human Research Ethics Committee (Non-Medical), telephone +27(0) 11 717 1408, email hrec-medical.researchoffice@wits.ac.za

Yours sincerely,
B. Ogundiwin

Researcher:
Babatunde Adedayo Ogundiwin, 1807179@students.wits.ac.za, (+277) 065 321 1251

Supervisor:
Dr. Alex Wafer, alex.wafer@wits.ac.za, +27 11 717 6517

Appendix 5: Participant Information Sheet

School of Geography, Archaeology and Environmental Studies

Participant Information Sheet
Focus Group Activity

Dear Sir / Madam,

My name is Babatunde Adedayo Ogundiwin and I am a PhD student in School Of Geography, Archaeology, and Environmental Studies at the University of the Witwatersrand in Johannesburg. As part of my studies, I am researching the use of citizen-based mapping in northeastern Ibadan rural hinterland (Lalupon and environs) for empowerment and expansion of community-based farm settlement schemes.

As part of this research, I would like to invite you to take part in a focus group discussion. This focus group activity will involve a group conversation with other local residents and the researcher about their views on community-owned farm settlement scheme and local knowledge of farming village in a propositional mapping of this community. I will very much like to take a transect walk with you if you have the time. The transect walk will require walking with me to specific landmarks portrayed in the group maps so that I can capture its location with a GPS. If you are comfortable with it, I will appreciate if I can audio-record some of the group discussion using a digital device so that I can have a record for my research. Although I would not be able to compensate for this time, I would appreciate one hour to one hour and thirty minutes of your time for this focus group activity. The focus group discussion will be completely confidential and if I use any of this discussion in any research report it will remain anonymous.

If you have any questions during or afterwards about this research, feel free to contact me on the details listed below. This study will be written up as a research report which will be available online through the university library website. If you wish to receive a summary of this report, I will be happy to send it to you (optional). If you have any concerns or complaints regarding the ethical procedures of this study, you are welcome to contact the University Human Research Ethics Committee (Non-Medical), telephone +27(0) 11 717 1408, email hrec-medical.researchoffice@wits.ac.za

Yours sincerely,
B. Ogundiwin

Researcher:
Babatunde A. Ogundiwin, 1807179@students.wits.ac.za, (+277) 065 321 1251

Supervisor: Dr. Alex Wafer, alex.wafer@wits.ac.za, +27 11 717 6517

Appendix 6: Semi-Structured Interview Schedule
[Government Farm Project in the Community]

The University of the Witwatersrand,
Private Bag 4, Wits, 2050, Johannesburg, South Africa.

Introduction
Opening Questions

- Have you ever heard of this project in your community?

Core in-depth Questions

- Are you aware of the aims of this project?
- Were you alive when this project commenced in the 1960s?
- Are you aware of the progress and decline of the project from the 1970s until now?
- Do you understand how the land was made available for this project? What process does such a donation of land entail?
- Are you aware of the donated land was a communal land or donation from different families?
- Do you know of any reaction or interaction of this community about this project with the governments over the decades?
- Have you ever notice any feeling of the community about this moribund project?
- Do you think something might have been done differently about the sustenance of this project, either by the government or by the community?

Closure

- Do you think this project in your community, if it had survived, could have contributed to the progress of livelihood in this area?

Thank you for your participation.

Appendix 7: Semi-Structured Interview Schedule
[Farm Village & Community-Owned Farm Settlements]

The University of the Witwatersrand,
Private Bag 4, Wits, 2050, Johannesburg, South Africa.

Introduction
Opening Questions

- What can you remember of an indigenous farm village in the pre-colonial period?

Core in-depth Questions
Farm Village

- Are you aware of how the land can be accessed in a farm village?
- Are you aware of how young people could access to land in the farm village?
- Is there any advantage of the farm village in terms of land availability and accessibility for farming?
- Do you understand why the farm-village declined during the colonial period?

Farm Settlement Scheme

- Have you heard of the Araromi Community Farm settlement scheme at Ado Awaye?
- Do you think your community should/can provide land for youth as done at Ado?
- Do you think the provision of land for youth employment in rural-based community-owned farm settlement scheme can help rural development?
- Does your community have potential lands for such a project?
- Do you think the community should handle such a project or there should be collaboration among contiguous villages and towns (as done at Ado-Awaye and its neighbouring villages)?
- Since your community is nearer to the city of Ibadan, do you think a community-owned farm settlement here has an advantage over the Araromi Community Farm Settlement at Ado-Awaye?
- What impact do you think urban encroachment on rural farmlands can have on a communal-owned project like the community-owned farm settlement?
- How differently do you think a community-owned land scheme should be from the government land schemes?

Closure

- Do you think customary land tenure of the farm village can be useful in the community-driven farm settlement with modifications?

Thank you for your participation

Appendix 8: Focus Group Discussion Guide

The University of the Witwatersrand,
Private Bag 4, Wits, 2050, Johannesburg, South Africa.

This focus group will involve 4 or 5 participants around the following questions.

Introduction

Propositional/Perceptual Information

- Are there communal lands in the community that can be utilised for a community-driven land settlement scheme? Can you mark/enclose/circle the land?
- Can you mark or trace preferred or desired routes of feeder roads to those communal lands?
- Can you locate another farm infrastructure you think is required around that site?
- Can you mark what types of soil are there in these communal lands?
- Can you mark potential crops that can be grown on the soil of that communal land?
- Can you mark the parts of these communal lands that can support agroforestry?
- Can you draw or mark other features of interest you, which should be on the farm?

Conclusion

- Thank you for your participation.

Appendix 9: Ethics Clearance Certificate

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

Research Office

HUMAN RESEARCH ETHICS COMMITTEE (NON-MEDICAL)
R14/49 Ogundiwin

CLEARANCE CERTIFICATE	**PROTOCOL NUMBER: H19/09/41**
PROJECT TITLE	Cartography, the post-colonial state and the agricultural settlement scheme: A case study of citizen-based mapping in Northeastern Ibadan rural Hinterland
INVESTIGATOR(S)	Mr B Ogundiwin
SCHOOL/DEPARTMENT	Geography, Archaeology and Environmental Studies/
DATE CONSIDERED	13 September 2019
DECISION OF THE COMMITTEE	Approved
EXPIRY DATE	06 November 2022

DATE 07 November 2019 **CHAIRPERSON** (Professor J Knight)

cc: Supervisor : Dr A Wafer

DECLARATION OF INVESTIGATOR(S)

To be completed in duplicate and **ONE COPY** returned to the Secretary at Room 10004, 10th Floor, Senate House, University. Unreported changes to the application may invalidate the clearance given by the HREC (Non-Medical)

I/We fully understand the conditions under which I am/we are authorized to carry out the abovementioned research and I/we guarantee to ensure compliance with these conditions. Should any departure to be contemplated from the research procedure as approved I/we undertake to resubmit the protocol to the Committee. **I agree to completion of a yearly progress report.**

Signature _____ Date _____/_____/_____

PLEASE QUOTE THE PROTOCOL NUMBER ON ALL ENQUIRIES

Appendix 10: Cartographic History Map Collection
Map Title, Location, Author, Date, Other Information

Locations: [1] Southern Baptist Historical Library and Archives. [2] British Library. [3] Basel Mission Archives. [4] Bordeaux Montaigne University Library. [5] University of Wisconsin Library. [6] Robert Frew Collections. [7] OldMapsOnline.org. [8] Colonial Annual Reports. [9] Encyclopedia Britannica. [10] University of Cape Town Library. [11] Princeton University Library. [12] University of Texas. [13] Stanford University Libraries. [14] US Library of Congress. [15] Britihemprie.co.uk. [16] Michigan State University.

1.A Chart of the Route of the Late Captain Clapperton and his Servant, R. Lander, From Badagry to Sokoto in Clapperton, H. *Journal of a Second Expedition into the Interior of Africa*. London.1829

2.The Course of the Quorra, The Joliba or Niger of Park [with their route from Badagry to the Northward in 1830] in Lander, R. and J. Lander, *Journal of an Expedition to Explore the Course and Termination of the Niger*. London. 1832

3. Map of Africa, [16] John Arrowsmith, 1834, *London Atlas of Universal Geography*,

4. Africa: Lower course of the Kwara [Niger] River, John Arrowsmith, 1841, *On Benin and the Upper Course of the River Quorra, or Niger*, Royal Geographical Society (RGS), Vol.11

5. Map of Yoruba, [1] *Proceedings of Southern Baptist Convention*, 1853, Baltimore

6. Lagos River, [2] British Admiralty, 1857, Scale 1/18 160 based on a survey carried out in 1851 by Mr Earl.

7. The Yoruba Country & c. with the Course of the Niger and Tchadda, Church Missionary Society (CMS), 1859, *Church Missionary Atlas*

8. Map of Western Africa, to illustrate travels in the Yoruba and Nupe countries, D.J. May, 1860, *Journey in the Yoruba and Nupe Countries in 1858*, RGS Vol.30

9. Map of the Aku Country, Robert Campbell, 1861 *A Pilgrimage to Motherland 1859-1860*.

10. Lagos River, [2] Lieutenant J.H. Glover RN, British Admiralty chart, 1861, Scale 1/14, 800

11. Inland Water Communication, [2] Sketch survey by Lt. J.H. Glover (1858, 1859 &1862), Admiralty Chart.1863

12. The Oku-Lander (Yoruba) [inset Plan von Abeokuta] [3] Gotha Justus Perthes, 1867,

13. Map of the Yoruba Country [with an inset sketch of Abeokuta], Church Missionary Society (CMS), 1878, *Church Missionary Atlas*

14. Sketch Map of the Town of Lagos, [2] W.T.G. Lawson, 1885

15. Forcados, [4] Service Geographique de Colonies, 1886, Scale 1/2,000,000, Carte de L'Afrique Occidentale Francaise No.6, map portrays southern Nigeria

16. Sketch Survey, [2] Mr W Speeding, 1886, Mahin, Ogbo, and Jakiri Countries, Colonial Office

17. Sketch Map of Oyo Country, [2] Governor Alfred Moloney, 1888, Colonial Office

18. A Sketch Survey of the Inland Water Communications, [2] Lagos Colony, Alvan Millson, 1891, Edward Stanford Geographical Establishment

19. Map To Illustrate Mr. A. Millson's Paper on The Yoruba Country, W. Shawe, 1891, *The Yoruba Country, West Africa* , Vol.13(10), RGS

20. Routes in the Colony of Lagos, [2] illustrated the travels of Dr J.W. Rowland, 1891.

21. Chart of Ogun River, [2] British War Office, 1892, Scale 1: 126,720

22. Map of Route taken by Sir G. Carter's Expedition from Lagos to Ilorin, [2] A.G. Fowler, 1894, Scale 1: 506,880, or 1 inch to 8 miles.

23. Map To Illustrate Captain Lugard's Paper on the Borgu Expedition 1894-1895, Scale: 1/1,267,200 *An Expedition to Borgu, on the Niger*, Vol.6 (3), RGS

24. Route in Yoruba Country. J. Mckay, 1895, Scale 1/ 750,000 *The Geographical Journal*, v. 6, p. 570

25. Map of Hausaland showing Captain Lugard's and Rev. C.H. Robinson's Routes, 1896, *Scottish Geographical Magazine*, Scale 1 /5,600,000

26. Benin, [5] Service Geographique de L' Armee, 1900, Scale 1/2,000,000, Afrique Regional Equatoriale No.33, map portrays southern Nigeria

27. Map of Nigeria, [6], Edward Stanford, 1901, scale One Inch to 30 Miles, Intelligence Division of War Office (IDWO)/Ordnance Survey, Southampton.

28. Outline Map of Northern and Southern Nigeria, [2], War Office, 1907, Topographical Section of the General Staff (TSGS) 2235

29. Map of the Western Province of the Colony and Protectorate of Southern Nigeria, [2] Southern Nigeria Surveys, 1908, Scale 1:250,000.

30. Southern Nigeria, [8] Southern Nigeria Surveys, Scale 1/4,000,000, 1907, HMSO, 1908

31. Outline Map of the Colony and Protectorate of Southern Nigeria, [8] Southern Nigeria Surveys, 1909.

32. Nigeria, [7] John Bartholomew & Co., 1909, Edinburgh

33. Nigeria, [9] Emery Walker, 1911

34. Map of Southern Nigeria showing The Three Provinces, E.D Morel, 1911, *Nigeria: its People and Problems*, pg.46

35. Map of Southern Nigeria, [7] Stanford Geographical Establishment, 1911, John Murray

36. Outline Map of Southern Nigeria, [8] Southern Nigeria Surveys, 1912, Scale 1/3,334, 636.

37. Outline Map of Southern Nigeria, [8] Southern Nigeria Surveys, 1913

38. Outline Map of Nigeria, [8] Nigeria Surveys, 1914, HMSO, 1916

39. Outline Map of Nigeria, Edward Stanford's Geographical Establishment, 1918, *Nigerian Handbook*, 1919, inside back cover.

40. Administrative Map of Nigeria, Nigeria Surveys, 1922, *Nigeria Handbook* inside back cover

41. Lagos and Environs, Nigeria Surveys, 1922, *Nigeria Handbook*, facing pg.135

42. Map of Nigeria, Nigeria Surveys, 1929, *Nigeria Handbook*, Scale 50 mile to 1 inch, inside back cover

43. Forest Map of Nigeria, Nigeria Surveys, 1929, *Nigeria Handbook*, Scale 50 mile to 1 inch, after pg.28

44. Rainfall Map of Nigeria, Nigeria Surveys, 1929, *Nigeria Handbook*, Scale 50 mile to 1 inch, after pg.22

45. Lagos and Environs, Nigeria Surveys, 1929 *Nigeria Handbook*, facing pg.191

46. Map of Nigeria, [10], Nigeria Surveys, 1929, Scale Approx. 50 Mile to an Inch

47. Map of Nigeria, [8] Nigeria Surveys, 1930, Scale 1/2,000,000

48. Provincial Administration of Western Nigeria, 1930, Federal Surveys, 1979, N. Fadipe, *The Sociology of the Yoruba*, pg. vii

49. Map of the Colony and Protectorate of Nigeria, [8, 11] Nigeria Surveys, 1931, scale 1/3,000.000.

50. Map of the Colony and Protectorate of Nigeria, [8, 11] Nigeria Surveys, 1933, scale 1/3,000.000.

51. Forest Map, Nigeria, [10] Nigeria Surveys, 1933, scale 1/3,000.000

52. Map of the Colony and Protectorate of Nigeria, [8, 11] Nigeria Surveys, 1934, scale 1/3,000.000.

53. Map of the Colony and Protectorate of Nigeria, [8, 11] Nigeria Surveys, 1935, scale 1/3,000.000.

54. Agricultural Map, [10] The Colony and Protectorate of Nigeria, Nigeria Surveys, 1935, scale 1/3,000.000.

55. Map of the Colony and Protectorate of Nigeria, [8, 11] Nigeria Surveys, 1936, scale 1/3,000,000

56. Map of the Colony and Protectorate of Nigeria, [8] Nigeria Survey, 1937, Scale 1/3,000,000 or One Inch to 47.35 Miles

57. Map of the Colony and Protectorate of Nigeria, [8, 11] Land and Survey Department, 1939, Scale 1/3,000,000, Lagos, Colony of Nigeria

58. Agricultural Map of Nigeria, [8] Nigeria Surveys, 1940 Scale 1/3,000,000

59. Plan of Lagos, [5] Land and Surveys Department, 1942, Lagos, Scale 1/4,800

60. Parakou, NC-31, [12] US Army Map Service, 1942, Scale 1/1, 000, 000, Second Edition, Reprint of GSGS No.2465, map portrays northern Yorubaland

61. Porto Novo, NB-31, [12] US Army Map Service, 1942, Scale 1/1, 000, 000, Second Edition, Reprint of GSGS No.2465, map portrays southern Yorubaland

62. Lagos, B-31 NO, [10] Deutsche Weltkarte Afrika, 1942, Scale 1/500,000, complied from Nigeria Surveys maps

63. Gold Coast, [5] US Army Map Service, 1944, Scale 1/2, 000, 000, copied from Third Edition of GSGS No.2871, map portrays southwest Nigeria

64. Map of the Colony and Protectorate of Nigeria, [8] Nigeria Survey, 1946, HMSO 1947

65. Layout of Ikoyi, [3] Nigeria Surveys, 1946, BM UTC-31.035

66. Nigeria, [13] Directorate of Colonial Surveys, 1947, War Office

67. Western Provinces, E. Williams, Regional Public Relations Office, 1948, Scale 30 miles = 1 Inch, (*The Western Provinces: Pamphlet No.4*, Ibadan, 1948)

68. Map of Nigeria, [8] Nigeria Survey, 1949, Scale 1/3,000,000, Administrative and Communication, HMSO 1951

69. Map of the Colony and Protectorate of Nigeria, [8] Nigeria Surveys, 1949, Scale 1/5,000,000, Development, HMSO 1951

70. Road Map of the Colony and Protectorate of Nigeria, [14] Nigeria Survey, 1950, Scale 1/1,750,000, folding map

71. General Map of Nigeria, [8] Nigeria Survey, scale 1/3,000,000, 1951, HMSO, 1952/1953

72. Map of Nigeria, [3] Nigeria Survey, 1953, Scale 1/3,000,000, Forest Reserve

73. Ijebu Province and Colony III Shewing Density and Age of Cocoa, [2] Federal Surveys, 1955, Scale 1/62, 500

74. Ibadan and Vicinity, [12] US Army Map Service, 1955, Scale 1/25,000

75. Map of Nigeria Showing Agricultural Products, Nigeria Cocoa Marketing Board, 1955, *Nigeria Farmer's Diary*

76. West Africa (Nigeria) – Ibadan (NB-31 Series G504), [12] US Army Map Service (USMAS), 1956, Scale 1/250,000

77. West Africa (Nigeria) – Ogbomoso (NB-31-15 Series G504), [12] US Army Map Service, 1956, Scale 1/250,000

78. West Africa (Nigeria) – Lagos (NB-31-7 Series G504), [12] US Army Map Service, 1956, Scale 1/250,000

79. Nigeria, [15], The Geographical Institute, Edinburgh (Edited by John Bartholomew), 1956, 1/5,000,000, Topographic

80. Map of Nigeria Showing Rail, Road and River Communications, Federal Surveys, scale 1/3,000,000, 1959 Reprinted 1960, *Nigeria Magazine Special Independence Issue*

81. Map of Western Nigeria, Information Division, Western Nigeria Ministry of Home Affairs, printed by Henry Hildesley Ltd, London E8.

National Topographic Map (NTM) Series
[Title/Sheet/Scale/Date]
Apomu NW262 1/50,000 1966
Apomu NW262 1/50,000 1966 (1981 Reprint)
Apomu SE262 1/50,000 1966
Iwo SW242 1/50,000 1964
Mahin NE296 1/50, 000 1964
Lagos NW279 1/50,000 1964
Lagos NE279 1/50,000 1964
Apomu 262 1/100,000 1966

Other Maps
Map Showing Ibadan North Local Government Area, Ibadan: Ibadan North Planning Authority
Administrative Map of Nigeria, 1960 (1924 Revision), Scale 1/1,300,000, Federal Surveys, Lagos

Appendix 11: Criterium for Map Periodisation

Othering	Audience	Events	Time	Historical Period
Objectification	Scientists, Explorers, Merchants	Exploraion/Informal Empire	1860-1900	Imperial Encounter
Partial Visibility	Colonial Administrators	Colonial Annexation	1901-1918	Early Colonial
Rural-Urban Dichotomy	Colonial administrators, Western-educated colonised subjects	Indirect Rule	1919-1939	Inter-War Years
Marginality/Periphery	Colonial administrators, Western-educated colonised subjects	Postwar Development activities	1945-1959	Late Colonial

Source: Author, 2021

Appendix 12: Map Selection within the Historical Periods

Period [Maps]	Year/Map	Historical Event
Imperial Encounter [13]	1860/Yoruba Country	Establishment of Consulate, 1853 Annexation of Lagos, 1861 (Atanda, 1980)
	1891/ Yoruba Country	Annexation of Eastern Yorubaland, 1886
	1894/ Borgu and Northern Yorubaland	Annexation of Yorubaland, 1893 (Atanda, 1980)
Early Colonial [10]	1907/ Map of Southern Nigeria	Merger of Lagos and Yorubaland with Protectorate of Southern Nigeria, 1906 (Atanda, 1980)
	1914/Map of Nigeria	Amalgamation of Northern and Southern Nigeria, 1914 (CO, 1916)
Inter-War Years [19]	1929/ Lagos and Environ	Lagos Town Planning Ordinance, 1928 (CO, 1929, 28)
	1939/Map of Nigeria	The Second World War, 1939-45
Late Colonial [17]	1948/Western Provinces	Commencement of Richards Constitution , which introduced the three Regions of Nigeria, 1947 (Crowder, 1966)
	1955/ Ibadan and Vicinity	Introduction of a Federal State by the Lyttle Constitution of 1954 (Crowder, 1966)

Source: Author, 2020

Appendix 13 Archival Data
Source: National Archives of Nigeria, Ibadan

File No.4910 Oyo Provincial Papers 1/1

Sheet No.	Subject	Date/Signee	Remark
1	Proposed Settlement for Ex-Soldiers on the River Ogun	No Date D.P. Stanfield	Include a Sketch Map
	Proposed Settlement for Ex-Servicemen on the River Ogun	11/8/1945 Resident, Oyo Province	Refers to D.P. Stanfield as District Officer, Oyo
12	Model Village Settlement	1/10/1945 District Officer, Oyo Division	Mr. A.V. Gibberd suggested an alternative site on the Ogun River
14	Proposed Ogun Valley and Soldier Settlement	27/9/1945 A.V. Gibberd, Agricultural Officer	Discussion of an alternative site on the Awon River, with reference to topographic map consultation
26	Ogun River Dam Site	12/7/1950 [L] Heslop, District Officer, Oyo Division	Include Site Plan drawn by the Native Administration Surveyor, Mr. Mohammed
33	Ogun River Hydro-Electric Scheme	9/8/1950	Proposal for large-scale tobacco production, Secretary, WRPDB
36	Discussion on the survey of the Upper Ogun water storage area	14/9/1950 H. Spottiswoode	The surveyors are from a firm of consultants (Callenders) in the U.K.
40	Upper Ogun Survey	2/10/1950 District Officer, i/c Oyo Division	Discussion on surveying the area
46	Upper Ogun Estate	No Date H. Spottiswoode, Chairman, WRPDB	The letter was addressed to Mr. C. Dodwell. There was reference to need for

			1:125,000 topographical map 'without placing too much trust on their accuracy of detail' and the conduct air photo survey of the area.
52-53	Ogun River Hydro-Electric Scheme	15/12/1950 C.B. Dodwell, Secretary, WRPDB	Comments on attached a Sketch Map
130	Lease of Upper Ogun Estate	24/10/1951 C.B. Dodwell	There was reference to necessity of attaching a Sketch Plan of the area to the Agreement.
187	Settlement of Farm School Trainees	28/10/1953 Acting Director of Agriculture, Western Region	
198	Upper Ogun Settlement Scheme	19/2/1954	Discussion on the organisation of the farm settlers as a Co-Operative Society

OG8 Osun Division 1/5

Sheet No	Subject	Date/Signee	Remark
6	Proposed Site for Farm School Ogbomoso	29/8/47	Site visit in the vicinity of the town by Agricultural officers
13	Development Committee	17/9/47 H. Spottiswoode, Senior District Officer i/c Ibadan Division	Request for a sketch map in duplicate [Sketch Map in No.1022/90 of 10/9/1947 not found in the Archives]
30	Map [Title: Suitable Farming Area]		Visualise suitable area for farm school on the Oyo-Ogbomoso Road
32	Ogbomoso Farm School	19/4/48 A.F.W. Sheffield, Senior Agricultural Officer, Oyo Province	'I have…prepared a map'[Not attached in the correspondence]

45	Ogbomoso Farm School Report	5/5/48 G.O. Adedeji, (A.A.O.II) i/c, Ogbomoso Farm School	There was reference to Mr. Sheffield's 'general surveying and mapping of the area'.

OG70 Osun Division 1/5

Sheet No.	Subject	Date/Signee	Remark
	Memorandum on Economic Development of Ogbomoso from Professor N.D. Oyerinde, Otun Bale of Ogbomoso	March 1948 N.D. Oyerinde	'my alternative to plantation system'
39	Oyo Farm School	28/9/1949 A.F. Abell, Resident, Oyo Province	
42	Youths Community Farm	30/11/1949 Mogbesola, The Elegigbo of Ejigbo	
54	Ogbomoso Farm School Settlement	27/2/50 O. Osinowo for Agricultural Officer, Oyo Province	Include a sketch map Land near Jabata
60	Selection of Ogbomoso Farm School Site	23/5/50 W.J.C Little, Agric Officer, Oyo Province (AO)	Discussion on the connection of topographic unit and land utilisation plan of Jabata Area
71-72	School Settlement No.151/OFS/249	31/10/50 Agricultural Officer, i/c Farm Schools	Include 2 sketch maps Land beside Isioran River
85-86	Ogbomoso Farm School Settlement	13/2/51 Agricultural Officer, i/c Farm Schools	Include a sketch map Land near Iressa
91	School Settlement	16/12/50 F.G. Bridges, Agricultural Officer, i/c Farm Schools	Discussion of Farm Co-operative Plan

112-115	Ogbomoso Farm School settlement	4/7/51 Agricultural Officer, i/c Farm Schools	Discussion on farm plan and mapping; include 2 sketch maps Potential Plan for Iressa
118	Ogbomoso Farm School Settlement	3/1/1952 Robert John, Director of Agriculture, Western Region	
134	Map [Title: Farm School Settlement Area]		Written on map: 4 mi length, 3 mi breath
144	Iressa Farm Settlement	8/11/52 N.D. Oyerinde	Letter of N.D. Oyerinde addressed to the Assistant District Officer

OG 13 Awla and Olla Hill Reserve Osun Division 1/5

Sheet No.	Subject	Date/Signee	Remark
4	Olla Hill Reserve	1/9/1924, Assistant District Officer	Identification of Farm villages near or within the Reserve
24	Olla Hill Reserve	26/9/1928, R.F. Butler, Acting Conservator of Forests, Oyo Circle.	The spatial descriptions of Idowu, llogbo and Iro Farm villages near the Reserve

File No.730/31 Osun Division 1/1
Sheet 15 Post War Development 24/1/1945 signed by F.E.V Smith, Chairman Central Development Board
Sheet 18 Development Circular No. II Road Development Programme, January 1945, Development Branch, Nigerian Secretariat

File No.1165 Osun Division 1/1
Sheet 16. Five-Year Local Development Plan Ede District 6/2/1950 signed by Timi of Ede and S.A. Olunlade, councillor.

File No. 1942 Osun Division 1/1
Sheet 1 Proposed Farm Settlement 21/7/52 signed by Assistant District Officer

File No.1969 Osun Division 1/1
Sheet 3 Ogbomoso Five-Year Plan
Sheet 6 Five-Year Development Plan 29/5/1953 signed by Assistant District Officer, Ogbomoso

File No.1970 Osun Division 1/1
Five-Year Development Plan 22/7/1952 signed by Mogbesola II, Elejigbo of Ejigbo and A.A. Tella

File No.790 Ibadan Division 1/1 [File Subject: Supply of Maps in Oyo Province]
Ibadan Native Administration Lands Office 18/8/1930 signed by District Officer, Ibadan
Supply of Maps 28/8/1930 signed by N.E. Bradley, Assistant Director of Surveys, Western Division
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Survey Sheets of Ibadan 17/7/1931 signed for the Executive Engineer, N.A. Works Ibadan
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Appendix 15: Periodisation of the Farm Settlement Landscape Analysis

Development Ideologies	Time	Periodisation	Data Used
Modern Landscape			
Development Decades (1960-1979) (Danby, 2009; Lawson, 2010)	1960-1985	Early Post-Colonial	Maps, documentary data
State deregulation activities: Structural Adjustment Programme (SAP) (1986-1993), the post-SAP period (1994-2000) (Brandt and Bruntrup, 2012)	1986-2000	Neo-liberal	NTMs, documentary data (news report, state report)
Intensification of Privatisation (Radcliffe, 2012)	2001-Present	Post-Neoliberal Period	Maps, documentary data (news report, state report, journals), ethnographic data
Subaltern Landscape			
Agrarian Economy (Hopkins, 2020)	1500-1800	Pre-Colonial	Archival material, Documentary data
Agrarian Economy, Overseas trade (Webster and Boahen, 1980)	1801-1900	Pre-Colonial/ Colonial	Archival material, Documentary data
Development Decades (Lawson, 2010)	1945-1959	Late Colonial	Archival material, Documentary data
Alternatives to State-sanctioned neoliberal development (Radcliffe, 2012)	2001-Present	Post-Neoliberal	Archival material, Documentary data (news report, state report), ethnographic data

Source: Author, 2021

Appendix 16: Farm Settlements of the Western Nigeria Land Settlement Scheme

No	Name of Settlement	Geographical Zone	Date Established	Type
1	Ilora	Arable-Savanna	1960	B Sch Leavers
2	Ogbomoso	Arable	1960	B
3	Ago-Owu	Central Cocoa Belt	1960	A Village
4	Ado-Odo	Southern Rain Forest	1960	A
5	Coker	Southern Rain Forest	1960	A
6	Onishere	Central Cocoa Belt	1960	A
7	Okitipupa	Southern Rain Forest	1960	A
8	Orin Ekiti	Central Cocoa Belt	1960	A
9	Esa Oke	Central Cocoa Belt	1960	A
10	Ibiade	Southern Rain Forest	1960	A
11	Imota	Southern Rain Forest	1960	A
12	Ile-Oluji	Central Cocoa Belt	1962	A
13	Ifon/Sobe	Southern Rain Forest	1962	A
14	Ago-Iwoye	Central Cocoa Belt	1962	A
15	Ajegunle	Southern Rain Forest	1962	A
16	Igbogila	Southern Rain Forest	1962	A
17	Ife	Central Cocoa Belt	1962	A
18	Osun	Central Cocoa Belt	1962	A
19	Akufo	Central Cocoa Belt	1962	A
20	Erio	Central Cooca Belt	1963	C IRDS
21	Ila-Oragun	Arable-Savanna	1964	C
22	Ilero	Arable	1964	C
23	Iresadu	Arable	1964	C
24	Iseyin	Arable	1964	C
25	Lalupon	Central Cocoa Belt	1964	C
26	Eruwa	Arable-Savanna	1964	C
27	Ilewo	Arable	1964	C
28	Epe-Ondo	Central Cocoa Belt	1964	C
29	Imariwo	Central Cocoa Belt	1964	C
30	Aiyede	Arable-Savanna	1964	C
31	Remo	Southern Rain Forest	1965	A Village
32	Ajara	Southern Rain Forest	1964	C

Sources: Derived from (1) Western State of Nigeria Farm Settlement Review, Vol.1, 1974; (2) The Future of the Western State Farm Settlement Scheme, Conference Report,1975. Note: Five Farm Institutes at Agbadu, Asaba, Ikorodu, Ilesa and Odeda are also considered as farm settlements.