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HERITAGE AND SUSTAINABLE DEVELOPMENT INVESTIGATING THE SUCCESSES AND FAILURES OF COMMUNITY RUN PUBLIC ROCK ART SITES IN SOUTHERN AFRICA

By

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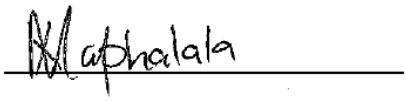
MSc by Research (Archaeology)

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DECLARATION

I, Octavia Xolile Maphalala, declare that this dissertation is my own, unaided work. It is being submitted for the Degree of Master of Science 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)

31 January 2022

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This research has been a constant reminder **TO PRESS ON**. To all who lost hope because of the COVID 19 pandemic keep your strength up and press on. I would like to firstly thank the **Nsangwini community and the Chongoni site managers** for allowing me to do my research with them. The knowledge and laughter that were shared through the interviews we had will remain in my memory. I would also like to say thank you to the site managers, researchers and officials who aided in my work coming to completion.

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ABSTRACT

The research explores community-run public rock art sites in southern Africa, with a focus on Nsangwini rock art site in Eswatini, to try to understand what is behind their success or failure. Southern African case studies are explored through a combination of literature review, interviews with stakeholders and fieldwork (in the case of Nsangwini Rock Art Shelter in Eswatini). Nsangwini is interesting for comparative purposes because it shows how a community-led initiative has helped in community upliftment. Extensive fieldwork was conducted at Nsangwini rock art site in 2018 and this revealed that the site is a success in that it attracts visitors, has remained open since its inauguration and generates an income that is useful to the community. The site is protected, managed and run by the local community and the money made from the tours to the site are ploughed back into community upliftment projects. The success of this site is an interesting contrast to other public rock sites in southern Africa, which have also had community involvement, but have not always run as successfully, in the case of South Africa some have even been periodically closed. By investigating the elements that contribute towards the sustainability of community-run sites, the study provides information towards understanding the premises required for the sustainable management and conservation of public rock art sites in southern Africa.

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ACRONYMS

AMAFA	Amafa aKwaZulu-Natali
CBC	Community Based Cultural organisations
EKZNW	Ezemvelo Kwa-Zulu Natal Wildlife
ETA	Eswatini Tourism Authority
ENTC	Eswatini National Trust Commission
ICOMOS	International Council on Monuments and Sites
ICTC	International Cultural Tourism Charter
SAHRA	South African Heritage Resources Agency
SNTC	Swaziland National Trust Commission
STA	Swaziland Tourism Authorities
VCL	Vumba Cultural Landscape
TARA	Trust for African Rock Arts
ICTC	International Cultural Tourism Charter
WHS	World Heritage Site

Community-run

The concept of community-run rock art sites is adopted in relation to the primary case study of the project, Nsangwini in Eswatini. The term denotes a situation where the local community takes a leading role in the daily use and management of the site. This is also the case for Chinhamapere rock art site in Mozambique. This setup does not apply to other case studies analysed in this study (Chongoni in Malawi, Tsodilo Hills in Botswana, Twyfelfontein in Namibia or Kamberg in South Africa), where local communities do not have a leading role, and they are only integrated into the lower levels of the government management structures. Nevertheless, these cases were selected for the study because of the availability of sources which enabled an in-depth analysis of the different aspects of community involvement in the management of rock art sites in southern Africa.

CHAPTER 1: INTRODUCTION

1.1. Statement of the problem

There are over 50 000 rock art sites in southern Africa making this, arguably, the most dominant material feature of Southern African cultural heritage (Deacon 2002). Rock art sites reflect spiritual and cultural heritage which has great significance to its creators and their descendants (Agnew *et al.* 2015:1). Rock art can be aesthetically appealing, spiritually embedded or symbolically valuable, both locally and internationally (Bwasiri 2008). Unfortunately in recent years, many sites have been damaged or destroyed because of natural and anthropogenic causes, yet the necessity for rock art conservation and management has not drawn adequate funding and recognition (Agnew *et al.* 2015). It is important that this category of heritage is effectively managed. Heritage management can be defined as "all the processes of looking after a place so as to retain its cultural significance, caring not only for the cultural heritage values of the site but also the surrounding environment" (Pearson and Sullivan 1995:9). Effective management of cultural heritage is vital for conserving the history of Southern Africa for future generations and contributing to the sustainable development of the region (Deacon 1993; Blundell 1996; Smith 2006). Following this line of thought, it has been suggested that sustainable development is that which also takes into account the need to conserve heritage. Similarly, the sustainable conservation of heritage should consider and integrate a concern for the social, economic and environmental dimensions of development (UNESCO 2012:9). Like many regions in the world, southern African heritage sites are seen as a potential catalyst for improving the livelihoods of local communities and also as a means to generate income for the State (Ndoro 2016).

Heritage-based tourism has been regarded as one of the most significant and fastest-growing parts of the tourism sector and it is often considered as able to provide opportunities for job creation, infrastructure development and public awareness in both rural and urban areas (Smith 2006; Ndoro 2016:393). There is a widespread idea that heritage, including rock art sites, can produce income and Meskell (2012:55) draws attention to the relentless promotion of heritage as a socio-economic driver, mostly for impoverished communities. However, much of this is rarely achieved and the results of various 'heritage for development' initiatives across the region constitute at best a mixture of small successes and frequent failures (Smith 2006; Duval & Smith 2012). Sadly, the negative results are far more common than positive ones (e.g., Chirikure *et al.* 2010; Meskell 2012; Taruvinga 2014). The dominant heritage paradigm

advocates for a strengthening of active and effective participation by local communities in the management, promotion and protection of cultural heritage as a key component of development processes (Deacon 2006b; Jopela 2011). This has led to the development of community-based archaeology, including community-run public rock art sites (Ataly 2010).

The idea behind studying community-run sites is to bridge the knowledge and awareness gap of the past and present between institutions and local communities (Chirikure & Pwiti 2008; Simpson & Williams 2008). In this thesis 'Community-run rock art sites' are understood to be those that have community involvement in the planning, decision-making, running, management, maintenance and conservation of the sites, but with varying degrees of oversight by the legal authorities (Chirikure *et al.* 2010). Community-run rock art sites across southern Africa have varying degrees of local community involvement in the daily running of the sites based on community interest and the particular country's legislation (Ouzman 2006). The local community, for the purposes of this thesis is understood as a body of people inhabiting the same area, and sharing ethnicity, history, heritage, ancestry, and religion (Chirikure & Pwiti 2008). It should be noted that not all communities are aware of rock art sites or have permission to privately use them, but they may still have spiritual and cultural connections with the area more generally, in which rock art sites are found (Pwiti *et al.* 2007; Jopela 2010). In southern Africa, the role of local communities in the active use of, and engagement with, rock art sites through ritual practice, has been observed at places such as Domboshava and Silozwane in Zimbabwe (Pwiti & Mvenge 1996), Tsodilo Hills in Botswana (Thebe 2006) and Chongoni in Malawi (Smith 1995).

Local communities are and have been, for centuries, the custodians of many heritage sites. Thus, they should be recognized as key actors in the process of identification, management, and sustainable development of heritage (Jopela 2016). Worldwide there has been an increasing recognition among politicians, academics and policy makers of the important contribution of culture and heritage for sustainable development (United Nations 2011). Today the thinking about sustainability and sustainable development is firmly embedded in the field of cultural heritage (Barthel-Bouchier 2013). A classic, and the most cited definition, is provided in the report *Our Common Future,* published in 1987 (also known as the *Brundtland Report*), which defines sustainable development as development that "meets the needs of the present without compromising the ability of future generations to meet their own needs" (World Commission on Environment and Development 1987:42).

Just like in other regions of the world, African governments face the daunting challenge of integrating a sustainable development perspective into heritage conservation and management. There is a general understanding that heritage should be explored as a driver and an enabler of sustainable development in Africa. Pursuant to this understanding, the UNESCO Policy Document for the Integration of a Sustainable Development Perspective into the Processes of the World Heritage Convention was adopted by the 193 States Parties to the World Heritage Convention in 2015. This Policy aims to ensure that the conservation and management of World Heritage properties are aligned with broader sustainable development objectives; namely environmental sustainability, inclusive social development, inclusive economic development, and fostering peace and security (Labadi, Jopela & Taruvinga 2020:6). The UNESCO 2015 Policy offers a set of parameters under the three dimensions of sustainable development (environmental sustainability, inclusive social development and inclusive economic development) that are useful for analysing the level of sustainability of community-based rock art sites in southern Africa.

Management practices recognized as being successful and sustainable can include everything from involving local people in site management to creating innovative policies and regulating tourism (see e.g. Barthel-Bouchier 2013). The analysis of the level of sustainability of community-based rock art sites in southern Africa is based on the parameters and elements presented in the UNESCO 2015 Policy in relation to the three dimensions of sustainable development (environmental sustainability, inclusive social development and inclusive economic development). Thus, assessing the environmental sustainability requires establishing the extent to which a heritage site contributes towards the broader protection of biological and cultural diversity and the benefits that generates. This involves a responsible interaction with the environment to avoid depletion or degradation of natural resources, ensuring long-term environmental quality (UNESCO 2015:4). The contribution of heritage for inclusive social development includes the analysis of the ways the site contributes to inclusion and equity, for instance, in terms of recognition, respect, and includes these values as well as cultural and environmental place-knowledge of local communities (UNESCO 2015:6). In fact, meaningful consultation and involvement of local communities in heritage management include supporting appropriate activities contributing to the building of a sense of shared responsibility for heritage among local communities, by recognizing both universal and local values within management systems for heritage (UNESCO 2015:7). Assessing the contribution of heritage to inclusive

economic development requires analysing if the site is able to generate a decent income and sustainable livelihoods for local communities; the ways in which the site encourages locally-driven responsible and sustainable tourism in and around heritage site; as well as the site's ability to promote the development of sustainable economic activities (e.g. craftsmanship) associated with heritage conservation (UNESCO 2015:9). The above parameters provide the benchmark against which the level of sustainability of community-based rock art sites are evaluated in the region and the understanding of their success or failure.

During my honours research project among the Nsangwini community in Eswatini in 2018, it was observed that the community-run public rock art site was conserved, protected and valued by the local community because it was seen as an economic asset. Interviews with local community members revealed they had no spiritual connection to the site (Maphalala 2018). This is a contrast to other studies at rock art sites in southern Africa that stress the spiritual connection of local communities to the sites (e.g. Ndlovu 2009a; Jopela 2010). In the case of Nsangwini, the income generated from tourists' visits to the site was used to support AIDS orphans, repair the local school and to start a fund to send a local high school student to university as well as providing a salary to the community guide (Maphalala 2018). The case of Nsangwini is used here to try to understand the strategies that other sites could possibly employ to develop sustainable rock art site ventures.

Since there has been significant investment made in developing some of the community-run rock art ventures, for example, Game Pass Shelter, South Africa (Smith 2006), the question of how to develop a sustainable and successful framework for their sustainable management becomes an important one. Game Pass Shelter is an example of a site opened after significant infrastructure investment, in 2001, but that has subsequently been closed to tourism due to low visitor numbers and income generation (Maphalala 2018). The question this raises is whether a more effective and sustainable method of managing rock art sites might be found by studying community-run public rock art sites in southern Africa, particularly those, such as Nsangwini which are open to the public and generating useful income. This question represents the main research problem addressed by this thesis. This is explored by examining the elements that contribute towards the sustainability [or lack thereof] of community-run rock art sites in southern Africa as a strategy for managing cultural heritage more generally within the nexus of concern for sustainable development.

1.2. Research aim and objectives

The aim of the research is to investigate the sustainability of community-run rock art sites in southern Africa. Specific reference will be made to the Nsangwini community-run rock art site in Eswatini where fieldwork was conducted. The choice of Nsangwini as a comparative case study is because it runs sustainably by the local community without outside assistance (Maphalala 2018). Nsangwini will be compared to six other rock art sites in southern Africa: (1) Chinhamapere Rock Art site in Mozambique, (2) Chongoni Rock Art area in Malawi, (3) Game Pass Shelter in South Africa, (4) Tsodilo Hills World Heritage site in Botswana, (5) Wildebeest Kuil Rock Art Centre in South Africa and (6) Twyfelfontein World Heritage site in Namibia. The objectives of the study are to:

a) Investigate community attitudes and practices towards cultural heritage in order to explore how these practices influence the conservation of rock art sites (at Nsangwini and the other six sites in southern Africa;

b) Analyse, through comparative case studies, the elements that contribute to the sustainability [or lack thereof] of community-run rock art sites in southern Africa;

c) Suggest key elements which contribute towards the sustainability of community-run rock art sites in view of contributing to the debate regarding the role of rock art, and heritage in general, to sustainable development in southern Africa.

1.3 Rationale

The Nsangwini community and public rock art site in Eswatini are chosen for a detailed field study because of research findings that showed that income generated from visits to the rock art site was benefitting the whole local community, living around the site (Maphalala 2018). In southern Africa, other 'community-based' rock art ventures have not had similar success and involvement and interest by the community due to a variety of reasons. This is in spite of the considerable initial investment made at some sites (e.g. Game Pass) by government, donors and other stakeholders to develop infrastructure around the site such as offices, reception areas and boardwalks and to provide salaries to site staff (Smith 2006). The lack of involvement, interest and knowledge about the site appears to be one of the key problems faced by heritage organizations in their efforts to preserve the cultural significance of rock art sites not imbued with sacred values in most of the rural settings in southern Africa (Blundell 1996; Nhamo 2018).

In addition, just like in other regions of the world, southern African governments face the challenge of integrating a sustainable development perspective into heritage conservation and management. The challenge comes from a lack of funds to maintain the built areas and to pay staff and a lack of interest and knowledge by some who may damage the site, both intentionally and unintentionally. There is a general understanding that heritage should be explored as a driver and an enabler of sustainable development in Africa (Labadi, Jopela & Taruvinga 2020). The contribution of heritage for sustainable development is encapsulated in the UNESCO Policy Document for the Integration of a Sustainable Development Perspective into the Processes of the World Heritage Convention which was adopted in 2015. This Policy aims to ensure that the conservation and management of World Heritage properties are aligned with broader sustainable development objectives; namely environmental sustainability, inclusive social development, inclusive economic development, and fostering peace and security (UNESCO 2015). The 2015 UNESCO Policy provides a useful framework for investigating issues concerning the sustainability of heritage places as well as the contribution of heritage sites to sustainable development in Africa. By investigating the elements that contribute to the sustainability of community-run rock art sites, this study will contribute towards a better understanding of the premises required for the sustainable management and conservation of public rock art sites in southern Africa.

1.4 Setting the scene: Nsangwini community-run rock art site

While conducting interviews at Nsangwini in 2018, the process of how the community started doing formalised tours for income generation was explained to me (Maphalala 2018). A community member who had learnt about the significance of rock art during his studies abroad, initiated talks with the chief and the community about formalising tours to the rock art site at Nsangwini. Once the approval from the chief was given, the community member together with the chief and his council went to the Eswatini National Trust Commission (ENTC), formerly Swaziland National Trust Commission (SNTC) offices to initiate the process. This is the body that has oversight over the management of cultural heritage in Eswatini. Upon approval by the ENTC, four potential tour guides were selected by the chief's council from all who were interested in the job within the local community. The tour guide vacancies were advertised among the Nsangwini community. The guides went through a training programme established by the Eswatini Tourism Authority (ETA) formerly the Swaziland Tourism Authority (STA) (Maphalala 2018). Training for tour guides is important because the knowledge they give has

to be informative and accurate especially since the way that archaeological knowledge is conveyed to others has an impact on the public perceptions about the past and heritage (Blundell 1996; Smith 2006; Mokoena 2015; Barnabas 2016).

What was intriguing to learn during the interviews that I conducted in 2018 among the local community at Nsangwini is that the opening of Nsangwini rock art site to the public was initiated solely due to the knowledge and entrepreneurial spirit of a community member who saw the potential income to be generated from the site. The unusual aspect of this, is that the community member sought to involve the whole community in this initiative. This contrasts to known case studies from South Africa, where local, white farmers (land-owners) "find" the sites and then fence them off and thus control access to the site (Blundell 1996). Furthermore, in the case of Nsangwini, the community came together to learn about and to promote heritage that is not their direct cultural heritage to them. The rock art at Nsangwini is that of San hunter-gatherers whilst the Nsangwini community are all Swazis (Bantu-language speaking agro-pastoralists). This was borne out in the interviews conducted in 2018. All but one person interviewed at Nsangwini said that the art is from a 'distant people' with which they have no connection (Maphalala 2018). The ways in which the income from visits to the rock art site has assisted the community to date is impressive, this is despite the fact that the tour fee is not high and that the site does not have a considerable amount of visitors (Maphalala 2018). The thought was that if a small community can do this at a small scale, how much more could be done with sites that have potentially higher visitor access and publicity.

1.5 Outline of chapters

Chapter one sets the scene for the research project by presenting the statement of the problem, research objectives and rationale for investigating the sustainability of community-run public rock art sites. This chapter also introduces the main case study of this research project.

Chapter two is the literature review which looks at rock art sites and sustainability in southern Africa. There is also a brief analysis of how heritage links with identity and cultural practice. A consideration is also given as to why communities would place spiritual sustainability above economic. The management systems of heritage and rock art sites are noted. The challenges and tensions that management systems cause when the community is displeased or does not agree with how the site is being managed are also assessed. The way in which local

communities interact with sites is also mentioned. A look at how rock art tourism is being adopted by communities as a source of income (for some) is explored.

Chapter three presents the methods used in the research project and the reasoning behind their selection. Limitations to the study are noted and explanations of how those limitations impacted on the research are considered.

Chapter four analyses the seven case studies chosen in southern Africa. The six sites that are considered in comparison to Nsangwini public rock art site are those that have been described in the literature as having community involvement in their running. This means that there is some involvement of the community in the daily running, marketing, management and conservation, general working or decision making at a site. The varying scale of the community involvement will be noted as that is also a factor that impacts on the likely success or failure of a public rock art site.

In Chapter five the focus of the discussion is on the sustainability of rock art tourism in southern Africa. The different factors that impact efforts to create a sustainable environment with regard to public rock art sites are summarised.

Finally, in Chapter six, the key lessons learnt about the sustainability of community-run rock art sites are presented as part of the concluding remarks of the dissertation.

CHAPTER 2: LITERATURE REVIEW

The chapter presents a review of literature that will be insightful as to how to build a sustainability framework for heritage in southern Africa. Worldwide there is an increasing recognition among politicians, academics and policy makers of the important contribution of culture [of which heritage forms a part] for sustainable development (United Nations 2011; Albert *et al.* 2012). Today the thinking about sustainability and sustainable development is firmly embedded in the field of cultural heritage (Clark & Maeer 2008; Meskell 2012; Barthel-Bouchier 2013). As the Director General of UNESCO, Irina Bokova, noted in 2012, at the 40th anniversary celebrations of the World Heritage Convention, "Heritage carries high stakes — for the identity and belonging of people, for the sustainable economic and social development of communities" (Rao 2012:325). According to UNESCO (2010) the relationship between environment and development is not simply about conservation and economics but should also include a concern for issues such as human rights, population pressure, food security, gender and other important parts of sustainable human development.

There is the progressive use of the concept of sustainable development to guide heritage conservation and policy (Rao 2012; Barthel-Bouchier 2013). The notion of sustainable development to "meet the needs of the present without compromising the ability of future generations to meet their own needs" and some of its principles have been criticised (World Commission on Environment and Development 1987:42). The critic is that it is ambiguous, vague, disputable and mostly impractical since there is no universal agreement on how this concept should be translated into practice (Berke & Conroy 2000; Meskell 2012).

At the practical level, the World Heritage Committee and the Advisory Bodies have acknowledged that there are still numerous challenges that often hamper the implementation of sustainable development approaches to the conservation of heritage; mainly the inadequate staff and resources, the lack of stakeholders' engagement and an inadequate system of governance (WHC-10/34.COM/5D:4). There is still ongoing discourse as to whether a site with World Heritage status is beneficial for local communities. There is, however, overall agreement that when all stakeholders work together more success is obtained (Taruvinga 2014).

Meeting of the United Nations Conference on Environment and Development in 1992, 2000, 2001, and 2002, have tried to integrate the principles of sustainable development into country

policies and programmes (Labadi & Gould 2015:200). A policy was created by UNESCO to ensure that sustainable development objectives like environmental sustainability, inclusive social development, inclusive economic development, and fostering peace and security are implemented by countries (UNESCO 2015; Labadi, Jopela & Taruvinga 2020).

2.1 The role of local communities in heritage management

A community is a group of individuals living in the same locality (Appiah 2006; Johnson 2000); being indigenous individuals (people born in an area) or descendants of those who inhabited the place (Chirikure & Pwiti 2008). The people may have similar ethnic, cultural or religious characteristics, and a shared sense of ownership of the land (Marshall 2002). Thus a community is a group of individuals brought together primarily by location and alongside other factors like ethnicity, culture or religion which connects them. However, communities can be heterogeneous with divisions of multiple groups that are competing or overlapping because they have diverse perspectives, needs and expectations (Ataly 2010).

Many of the San-speaking communities are deceased (Deacon 2006b) and finding people who are willing to acknowledge this ancestry may be difficult in certain places because they were marginalised in the past all over southern Africa (Chirikure & Pwiti 2008). It is often a great task to convince people that they should have pride in their history, particularly those groups that have been previously been viewed as inferior or marginalised (Chirikure & Pwiti 2008). However, there are some descendants who know of the indigenous ways and traditions who are willing to share their knowledge with the world to give people a better insight into their culture. This can be achieved by using local sources of knowledge such as oral traditions, myths, and legends as well as ethnographies (Damm 2005). This is not to say that all San-speaking communities can be generalised into one group. However, having someone local to advocate for those who cannot do it themselves holds a higher value than a stranger who may have not had a similar background or history like them.

The marginalisation and segregation of people came with a loss of land to many people because the years of colonisation led to large-scale displacement of people in southern Africa, with communities having problems reclaiming ancestral or religious sites once they are separated from these (Pwiti & Ndoro 1999). This is because people die, do not have documented proof of having lived in a place before, or are displaced so far away from their original home, that 19

coming back to reclaim the land is a difficult feat. Thus land ownership must be placed at the centre of this debate in order to understand the social issues associated with heritage management that are brought about because of displaced groups (Deacon 2006b).

This is also true of heritage resources that were acquired by unfair or illegal means (Corsane 2005). The efforts in reclaiming them by their rightful owners are challenging. As political and social conditions change the constructed stereotypes also change (Blundell 1996). This makes community involvement at sites important as a way to empower local communities, even when the knowledge systems and practices of communities have been lost with the alienation of local people from the management and the use of heritage resources in the past (Ndoro 2015). To achieve a good correlation between the preservation and conservation of tangible and intangible heritage, working with the community needs to be established to keep the conservation and management of heritage with a traditional outlook (Loubser 2003; Bwasiri 2008). In cases where there are multiple communities, community participation may not be the solution as there could be trouble trying to appease multiple stakeholders (Chirikure *et al.* 2010).

Corsane (2005) suggests that engaging with the community will help to identify important heritage sites and to acquire knowledge about sites that have already been recorded and documented. Chirikure & Pwiti (2008) point out that the participation of communities in archaeological endeavours has improved the social relevance of research, especially within communities that own or have an interest in archaeological sites. Chirikure & Pwiti (2008) warn that communities may have a bias towards their own heritage. However, what they have to contribute with local information and meanings still has historical value in research.

Community participation in heritage management has had variable results across southern Africa, with some positive and others not, depending upon the circumstances of their inclusion (Chirikure *et al.* 2010). Abungu (2006) suggests that negative consequences can occur if the high expectations of the community are not met when the site is running. To mitigate this, Deacon (2006b) shows that the effectiveness of successful management of rock art tourism is achieved when the historical connections between the original artists and descendant communities are known, and when the local residents can be engaged as guides to assist in the creation of jobs (Deacon 2006b).

Blundell (1996) draws attention to the challenge that many archaeologists encounter in bridging the gap between themselves and the public, which they are ill-equipped for. Although the impact of public education on the conservation and management of rock art tourism is uncertain, some rock art experts like Loubser (2001) and Whitley (2001, 2004) accept that it is important. Hence attempts have been made to bring archaeological information to the public, whether in book form or in exhibits and in the media (Blundell 1996). An example is seen in South Africa with the National Department of Basic Education taking significant measures towards incorporating history and archaeology into the school curriculum (Morris 2003). However, Deacon (2006b) points out that public education is insufficient if the significance of sites is not clear. To many African people archaeology is a white person's subject (Ndlovu 2009c), and they see no value in taking any part in a history that they do not associate with themselves because of modern education system. Communication with communities remains a priority when trying to implement conservation measures for sites. If the community agrees with the arrangement they will protect sites.

Community archaeology aims to empower indigenous and local communities to bring back the rights they may have lost through colonialism (Damm 2005; Chirikure & Pwiti 2008) by involving them in the design, implementation, and control of projects (Damm 2005). The involvement of communities is seen as one of the most effective ways of including owners and stakeholders in the protection of archaeological heritage (Chirikure & Pwiti 2008) especially if it is to make sustainable plans to manage archaeological sites (Sullivan 2003). Good communication between the heritage managers and local community from the beginning of a project is necessary as this establishes a good working relationship between the local community and heritage managers who may not have the capacity to effectively manage the sites in rural areas without local community cooperation (Ndoro 2006; Chirikure *et al.* 2010). In some instances local communities have been thought to be irrelevant in the sustainable preservation and management of their own heritage (Taruvinga & Ndoro 2003) because Western management systems were assumed to be progressive compared to the 'backward' traditional ways (Bwasiri 2008). This assumption overlooks the evidence that people looked after particular heritage sites and places before the formalised system for their protection was introduced (Taruvinga & Ndoro 2003). Local communities have been protecting and managing rock art sites for many years and this pre-dates the colonial era (Ndoro 2001; Abungu 2006), because they had ways to control and protect significant places by having taboos and restrictions on access to such places (Taruvinga & Ndoro 2003; Jopela 2011).

2.2 Rock art and identity in southern Africa

Rock art forms a very significant part of Africa's heritage because it is found all over the continent (Abungu 2006). Africa has a longer record, of over 250 000 years of human history than any continent, and some of this history is represented by the numerous rock art sites in southern Africa (Deacon 1997; Deacon 2002; Deacon 2006a). The records found at rock art sites were made by past anthropogenic actions such as painting and engraving that carved through natural landscapes such as sacred forests, hills, caves and rock shelters to provide humans with their spiritual and natural needs. These continue to service people today - spiritually, socially, politically and, of late, economically through tourism (Abungu 2006; Gjerde 2010). The variability in the art is due to a dynamic interplay of factors including history, culture, rituals and understandings of landscape (Morris 2012), but within this diversity of humankind one cannot forget the importance that the location of the art held to its makers and the communities that continue rituals and traditions in that area (Gruber 2011).

The rock art and the land in which they are found, are important to people because they have a certain value and significance to them. This significance may be spiritual, because people can derive inspiration, fertility, good health and contact their ancestral spirits at rock art sites and places (Jopela 2010:14, Ndlovu 2011a), social, as people find connection with their community and identity through encounters and engagements with such sites (Crouch 2002) or economical, through income generated by tours to these sites (Chirikure & Pwiti 2008; Maphalala 2018).

Without an understanding of this significance, the true purpose of the art is lost (Maggs 1995). Lewis-Williams and Dowson (1990) look at what significance the rock art has together with the surfaces on which it is found; stating who the painters were (San hunter-gatherer groups) and why they painted on the surfaces (for ritual purposes). While Van Schalkwyk and Smith (2004) add that an insider's knowledge of the art is necessary for understanding the attitudes and relationships people have with the site and art. Given that, as Lewis-Williams (1998) notes, the paintings are polysemic, and made by different people, thus ethnography helps to better understand the paintings and their makers (Smith 2014), especially with the creolisation of people that happens over the many years of human occupancy in southern Africa because of many factors. Challis (2012) explains that people are fluid, changing spaces and identity for various reasons like slavery, migration and wars. This creolisation makes associating rock art to one specific group of people difficult as many people would borrow from each other (Morris

2012). Hence today, there are many San hunter-gatherer descendants who still associate with the rock art and the land is sacred to their community (e.g. Ndlovu 2009a).

As noted above there are social activities, cognitive systems, abstract thoughts and concepts that go into making rock art unique, hence if a site is destroyed this is destroyed forever (Abungu 2006). Therefore, the creation of formalised rock art centres aid in the conservation of the art especially when the local community is involved and the traditional management systems are acknowledged (Jopela 2010), a point which will be expanded on later. These rock art centres have a responsibility to present accurate, scholarly-based interpretations of rock art (Mokoena 2015). Blundell (1996) contends that the poor state of some sites may be due to complex colonial and historical mechanisms which have left the communities without the necessary resources and will to maintain them. With the lack of funds many people become demoralised and often see no value in proper management of heritage places.

There have also been challenges in presenting rock art, especially in southern Africa where it is undervalued and underfunded (Blundell 1996). As such, many communities have felt exploited because their government chose to value tangible heritage over intangible heritage at the expense of the community in protection of the rock art site (Chirikure & Pwiti 2008). It is necessary to note that the people who form the community because they reside around a site are also important to the understanding of the significance of the site because places are socially constructed (Rodman 2003).

The identity of present and past societies is often closely associated with specific locations and structures in the landscape (Fowler 2003). These landscapes may become cultural or sacred landscapes by virtue of the symbolic interaction between people and their natural environment over space and time (UNESCO 2021: Paragraph 47). Cultural landscapes are therefore defined as geographic areas that include both cultural and natural resources and are associated with historical developments, events and activities or exhibit cultural values (Ndoro 2001:72). Rock art sites as well as their associated cultural landscapes are prominent features of the cultural heritage of southern Africa. Experience shows that when rock shelters are perceived as powerful oracles for communication with the ancestors and are used for ceremonies, they then benefit from a remarkable traditional custodianship from local communities that offers protection to such sites and places (Ranger 1999; Ndoro 2003; Sætersdal 2004; Jopela 2016).

The role of local communities in the active use of and engagement with sacred rock art sites through ritual practice has been observed in southern Africa in places like Domboshava and Silozwane in Zimbabwe (Pwiti & Mvenge 1996), Tsodilo Hills in Botswana (Thebe 2006), Kondoa-Irangi in Tanzania (Bwasiri 2008), as well as Chongoni in Malawi (Smith 1995; Zubieta 2006). Today, there is growing awareness that many communities in southern Africa have always had, and some still have, traditional management structures to ensure the survival of sacred sites (Ndoro, Mumma & Abungu 2008; Sheridan & Nyamweru 2008). In southern Africa, sites such as the Matobo Hills (Zimbabwe), Tsodilo Hills (Botswana), Chongoni Rock Art Area (Malawi) and Kondoa Rock Art Sites (Tanzania) were inscribed onto the World Heritage List under Criterion (VI). Sites listed under this criterion must be "directly or tangibly associated with events or living traditions, with ideas, or with beliefs, of outstanding universal significance" (UNESCO 2021: Paragraph 77 Operational Guidelines). These inscriptions are thus confirmations of the strong association of these sites with living communities and traditions (Jopela 2016:15).

2.3 Rock art management in southern Africa

Heritage management involves the care and continued use of heritage areas while ensuring that their significance is maintained and transmitted to future generations (Ndoro & Pwiti 2005). The Burra Charter ICOMOS Australia (2000:2) states that conservation should care for both the cultural significance and the surrounding environment. However conservation of both is often not something that is observed, as most commonly managers focus on the preservation of tangible heritage over the intangible (Ndoro 2006; Ndlovu 2009a). This is an inherited, western style of management that was introduced into Africa by the colonial administration (Ndoro & Pwiti 1999; Bwasiri 2008; Ndlovu 2009a; Jopela 2011). Basing the theory and practice of heritage management on Western ideals is a problem (Taruvinga & Ndoro 2003), because these processes are built upon policy and legislation which many indigenous people do not know or understand (Smith 2004). The policy and legislation structure how the preservation of physical heritage and intangible heritage is managed (Taruvinga & Ndoro 2003). However there is often no policing of whether this is done correctly unless the implementing authority is within close geographical proximity.

There are two heritage management systems available; the formal (Western) heritage management systems as described, and traditional or custodianship management systems. The

traditional management systems date from pre-colonial times and in some countries this system is acknowledged, and the custodians safeguard the cultural and religious significance of sites (Pwiti & Mvenge 1996; Pwiti *et al.* 2007; Jopela 2011; Mokoena 2015). The formalised heritage systems are adopted from Eurocentric ideals because of their adoption and implementation by previous colonial governments (Ndoro & Pwiti 1999). These Western perspectives usually overlook the complicated interactions between humans and nature as found in African cultures and traditions (Fabricus *et al.* 2004).

State-based heritage management, which includes the identification, documentation and promulgation of necessary legislation, was introduced throughout the African continent as part of the European colonisation (Pwiti & Ndoro 1999; Ndoro & Pwiti 2001). Consequently, state-based heritage organisations inherited rigid colonial legislation in the post-independent Africa. As can be expected, colonial legislation did not recognise the importance of traditional ways to protect heritage places (Maradze 2003) and this did not change after independence, a period during which traditional custodianship systems are still largely overlooked (Ndoro & Pwiti 2005). A number of reasons have been brought forward to explain this state of affairs. For instance, it was based on the belief that there had been a complete decline or 'suffocation' of Traditional Custodian System due to factors such as the colonial experience, the hegemony of mainstream religious faiths (e.g., Christianity) and processes of globalisation (Katsamudanga 2003). According to Duval & Smith (2013) the value a person can attribute to a site is contingent on their knowledge, understanding and appreciation of that heritage. The application of heritage management should include the various values, traditions, forms and aspects of heritage including the traditional and the western methods (Mokoena 2015). This will help to cater to the heritage resource conservation individually and specifically. Therefore a value-based approach to heritage management needs to be implemented (Sullivan 2003) whereby the primary purpose of protection of the significance of a place is done based on multiple values from stakeholders (Poulios 2010).

Ownership of land can be problematic for deciding who gets to manage a site (Abungu 2006) which is amplified by land disputes caused by modern-day politics (Chirikure *et al.* 2010). These disputes could also be about the site or communities surrounding it, and when finding common ground is difficult some indigenous groups can lose interest in the site. Chirikure & Pwiti (2008) say that the lack of interest by indigenous groups makes sites less desirable for protection because this is a potential tension point. In fact, Ndoro (2001; 2015) shows that

when people are not happy about the treatment of the protected heritage they may seek to vandalise it so that no one benefits while others are suffering. However communication between the parties involved may aid in progress towards overcoming such challenges (Morris 2003).

Three main components towards the good management of rock art sites are:
(1) public education - where the rock art is presented to people in an understandable manner to increase public appreciation and awareness; (2) conservation and management through legislation, civic education and physical protection, to minimize damage caused by human impact, and (3) management of information through research, site recording and databases (Deacon 1997: 30). All Southern African countries have heritage legislation to regulate the preservation and use of heritage resources (Ndoro & Pwiti 2001). Although regulations and management techniques to protect rock art sites vary by country, they generally address the same threats and opportunities (Deacon 2006b).

The Burra Charter has broad standards that are universally recognised as having good practices for heritage sites (Pearson & Sullivan 1995), and it been adopted by many countries to work with their own heritage legislation documents to establish good heritage practices in their respective countries. The legal and regulatory preservation of archaeological sites by heritage legislation in countries continues to be the most effective way to manage and restore sites (Deacon 1997). The major way that southern African countries protect heritage sites is by preventing people from destroying, damaging, excavating, altering, defacing, or removing them from their original state or context (at least without a permit granted from legal authorities (e.g. this is covered by the SNTC Act 1972 in Eswatini, and the National Heritage Resources Act, no 25 of 1999 in South Africa). Western perspectives on natural resource law although effective in the western countries, fail to be effective in African countries because they neglect the complex interplay between humans, culture and nature (Fabricus *et al.* 2004).

What occurs in the western perspective of protection is a separation of spirit (the intangible) and matter (the tangible) (Eboreime 2008), which is inseparable in African rock art because of the potency that is contained within the paintings. Eurocentric laws use a top-down approach which is non-African (Ndlovu 2011a) and are controversial in African contexts (Ndoro 2015). In African countries, the State usually struggles with making heritage laws relevant to the local communities (Ndoro & Kiriama 2008). The situation is worsened when the laws oppose the

cultural systems that are already in place for the protection of cultural heritage places. In southern Africa, archaeological sites are protected by general law which has a permit system that controls excavation and the collection of artefacts within sites (Deacon 2006a). The laws are clear on how heritage can be preserved and used (Munjeri 2004) to protect the heritage property from unnecessary loss for the future generations (Ndlovu 2011a).

Most laws forbid all local community rituals at a site (Taruvinga & Ndoro 2003). This is done to prevent people from doing anything that may endanger the site. The Traditional Custodianship System can assist in upholding the laws by having the traditional custodians guard access to, and behaviour at sites (Jopela 2011). Ndoro & Pwiti (2005) note that even though management ideas can be shared across sites there still needs to be awareness that sometimes sites may need a holistic manner of management rather than a uniform approach. Moreover Taruvinga & Ndoro (2003) disagree with the use of scientific research to make places more accessible to wider and larger audiences because in some cases taboos and rites for site access have not been observed, leading to the local community abandoning the place as the meaning is lost to them with this disregard for the proper rituals and conduct that they expect at a site. Hence to appease the community they should be included in the planning, managing and conservation of the site (Bwasiri 2008).

Usually the lack of experience and funding limitations impact on how the laws are implemented in southern Africa, and lead to an imbalance with certain types of heritage privileged over others (Ndoro 2015). The dependency on public and administrative structures left by the colonial powers has led to a desire to keep the scheme and its laws in place (Negri 2005). Adopting and implementing management plans for heritage in Southern Africa requires more than the stringent laws but also an attitudinal change from governments towards an integrated model of management (Jopela 2011). In some instances formal management alone has failed (Jopela 2011), because there is an issue with identifying and apprehending criminals which makes it difficult to ratify the laws (Deacon 1991; Ndlovu 2011a). The laws are not useful to people who do not know or respect them. Therefore having strict laws is not the solution (Flood 1979). Ndlovu (2011a) narrates how an investigation on two rock art sites that were defaced in the uKhahlamba Drakensberg Park in 2010 never yielded desired effects because there was no agreement on how to deal with the incident. This proves that although the law to protect the rock art and site was in place, they were in effect completely ineffective because the police took no action on the perpetrators of the crime.

Neglecting local community's concerns has resulted in destruction at sites. An example of this is the vandalism of rock art at Domboshava in Zimbabwe. This arouse because the local community was dissatisfied with how the site was being treated by the tourists. This led to a former employee (to the site) putting brown paint over the rock paintings (Pwiti & Mvenge 1996). The concern with the spiritual significance of the site is questioned when people previously deemed ineligible to enter some sites, do so now because enforcing these restrictions upon people may be seen as human right infringement especially in countries like South Africa that have the Bill of Rights in the constitution (Ndlovu 2011a). Having a traditional custodianship system can be helpful in maintaining the spiritual significance of the site because local custodians would be present at the site to ensure that no disrespectful actions occur at a site (Jopela 2011).

Steps were taken in the 1990s to move the formalised heritage preservation model from a 'monumentalist approach' towards a more holistic approach, which incorporated intangible heritage (Deacon 1993; Pearson & Sullivan 1995; Ndoro 2001). In southern Africa, some museums, departments of antiquity and universities have the responsibility of preserving and presenting sites to the public, this can be handled by one entity or shared between them (Ndoro & Pwiti 2005). Usually what is being considered is the physical conservation and financial sustainability of a site over the spiritual conservation (Ndlovu 2005). Any indigenous practices at a site are interpreted as a threat to the physical appearance of a site and interpreted as acts of vandalism by the heritage authorities (e.g. the touching of the rock paintings) (Ndlovu 2011b). The suggested approach for managing sacred rock art sites and landscapes is the involvement of community members whereby the members can share ideas on management and responsibilities (Smith 2006; Taruvinga 2007).

Long-standing institutional interests at heritage sites, for example where a researcher retains a site to themselves so as to do research at it and not allow other people including the local community access to the site is problematic (McGregor & Schumaker 2006). This can cause tensions with local communities. Rock art management strategies have tried to ensure the protection of sites from natural and human damage, and the promotion of public awareness, including tourism (Loubser 2001; Smith 2006; Deacon 2007). Intervention into rock art management through schools adopting a site has been positive in Botswana, but not in South Africa and Zimbabwe due to complex political and economic history and identity with regards to cultural heritage (Pwiti & Ndoro 1999). There are also longstanding conflicts that are driven

by identity and that could ignite tensions among community members who may feel people of a certain gender or age cannot have access to their sacred site.

Deacon (2006b) writes about how rock art sites vary in setting and place and so, therefore, their management needs to differ. Little & Borona (2014) have advocated for the construction of physical barriers to protect rock art against the threats of graffiti, vandalism, encroachment, deforestation, quarrying, and other human activities. Blundell (1996) disputes the effectiveness of these barriers to keep out serious vandals, instead he claims that a communities' connection with a site can aid in its protection, because interactions with the local communities in the management, conservation, and valorisation lay the foundations of those protective barriers (Little & Borona 2014).

2.4 Rock art tourism in southern Africa

Africa has the greatest diversity of rock art (Little & Borona 2014) and there are nine World Heritage rock art sites in Africa (TARA 2013). This has been beneficial in raising global awareness of African rock art which has been accompanied by increased tourism at some sites (Sanz & Keenan 2011). Even though Africa has some of the world's finest ancient rock art it is still undervalued by many (Lewis-Williams 2003). Yet, rock art can be a viable route to tourism development, heritage conservation, socio-economic regeneration and cultural empowerment (Duval & Smith 2012). To properly assess the value tourism has at a rock art site one needs to consider financial reports of the business, actual visitor numbers and condition reports as well as robusticity of the site and its market appeal (Deacon 2006b).

Rock art tourism needs a dynamic and adaptable management approach (Deacon 2006b), as the tourism sector needs constant change (Smith 2006) in order to remain relevant and attract tourists. The ICOMOS International Cultural Tourism Charter (ICTC) provides comprehensive guidelines for conservation applicable to cultural tourism development (ICOMOS 2002), which governments can draw on because there is some responsibility on governments to invest in finding ways to attract responsible tourism among the citizens (Abungu 2006). Most community-run initiatives collapse once funding has dwindled because of poor market access and poor governance (Jopela 2010). In essence to make a workable management plan for rock art tourism and conservation one needs to account for environmental factors (the rock art and the surrounding environment should not be endangered by visitors), social factors (the rights

and participation of descendant communities needs should not be hindered by tours and the ambience of the tours should create a good informative visitor experience) and economic factors (the local community needs to be able to benefit from the tours) (Deacon 2006b).

Very few rock art sites are actually prepared for public viewing, with the few that actually are open to the public, often run-down by years of neglect, as evidenced by signs and noticeboards that have fallen down, a lack of, or outdated, interpretative material, and rusted fences (Blundell 1996: 21). All the motivations, expectations, problems and negotiations that surround any form of tourism development must be factored into the development of heritage sites before making them public (Richter 2005:282).

Rock art tourism provides an avenue to attract people to remote rural areas, where any income generated should have a positive impact on local communities by providing a way of alleviating rural poverty (Pastor 1997; Little & Borona 2014). Tourists travelling to such sites can experience various forms of heritage across the countryside, e.g. shops, markets, and roadside stalls to sell curios and crafts made by local communities (Witz *et al.* 2005:341). Community-based tourism is frequently promoted as a way to reduce poverty in developing countries, however, often the needs of locals are hardly met through these ventures (Lukhele 2013). The allocation of income made by tourism remains unequal, despite hopes of sustainable growth and job creation (Witz *et al.* 2005). In post-apartheid South Africa there was an expectation for culture to provide tourism and commercial gains (Meskell 2012), however this gave false hope of high income to local communities and in most cases a hope of a better life has faded (Ndlovu 2011a). Many have not seen the financial benefits they were promised. The danger is that if local communities do not benefit from the protection of heritage, it may be seen as a liability to them. Community participation and engagement creates a way in which heritage can become beneficial to the community. The benefit will not only be financial but also intellectual as communities will be looking at sustainable ways to protect and promote their heritage site (Chirikure *et al.* 2010).

A good example of the influence recreational activities may have on rock art site visitation is in the uKhahlamba-Drakensberg World Heritage Site, where the advances in climbing techniques, improved accessibility and the expansion of tourist accommodation, ensured that the mountains became a favourite holiday destination for domestic tourists (Duval & Smith 2012: 136). Heritage tourism and leisure have in some instances become commercially viable

(Prentice 2005). There needs to be an understanding of the people who are visiting sites and the reasons for doing so, so as to develop appropriate heritage tourism and products which would appeal to them (Prentice 2005; Richter 2005).

To make rock art sites relevant to the local communities and to revive their sense of cultural preservation, one has to have cultural centres that can be used by locals for their own purpose alongside the tourism offering (Pwiti & Ndoro 1999). It is necessary to recognize African heritage in its entirety, including intangible aspects such as moral and sacred beliefs retained within a cultural landscape. It should be noted that not all living heritage is good or sustainable in heritage resource management as others can be destructive to the site (Jopela 2010). Many people also see a problem with the commodification of culture and the objectification of local communities, so these tensions would have to be addressed (McDonald 2005). Tourist behaviour, visitor perceptions and the effects of increased visitor numbers need to be recorded at rock art sites in order to manage a site (Deacon 2006b). However, there is no correlation between ease of access to sites and the amount of damage that occurs at rock art sites (Deacon 2006b). There is diversity in rock art sites therefore any conservation strategies and their implementation need to be recorded so that there is evidence of the steps taken to ensure the safeguarding of rock art sites. Should problems arise, it will create a space of accountability which in turn prevents repetition of poor practice in the future (Deacon 2006b).

There have been more visitors to sites because of more public endorsement (Deacon 2006b). The increased rate of tourism over the last thirty years has been met with higher development in the conservation of rock art (Deacon 2006b). However, due to the COVID 19 pandemic and continuous lockdowns, the rate of tourism has fallen drastically in 2020. There is an influence on rock art tourism by bureaucratic pragmatism (Deacon 2006b), with a trend to prioritise cultural heritage tourism over proactively protecting the heritage (Ndlovu 2009a). This can be problematic because the sacred values of heritage sites should be very important in management frameworks (Jopela 2010). Serious consideration of the local San-speaking descendants' opinion has to be taken into consideration when it comes to making rock art sites public. The descendants may still find them spiritually potent, and the potency and spiritual well-being of the site can be disturbed when outsiders frequently visit the place (Ndlovu 2009a). The regular visitation of sacred sites by tourists can deeply offend local community members but some only become upset if they do not see the tours as beneficial to them (Deacon 2006b).

There is a general understanding that heritage should be explored as a driver and an enabler of sustainable development which would make heritage a useful resource on the African continent. Loulanski (2006) states that for the heritage to be beneficial as a resource from which communities can benefit, it has to be sustainable, adaptable and protective of the core values of heritage. The core values of heritage make each site unique because the community will interact differently at each site according to their culture. If balanced right there is a possibility to generate income from cultural assets, to create employment, to reduce poverty, to stimulate enterprise development, to foster private investment and to generate resources for environmental and cultural conservation (Baycan & Girad 2011). This income would come from tours, jobs created for the people working at sites and business ventures by the entrepreneurs set up in close proximity to a site to cater to the tourist market (Baycan & Girad 2011). It can also be beneficial as a means to expose people to cultures and traditions of an area that are different to their own (Bonacchi & Burtenshaw 2011). An unconventional way of providing income can also come from the restoration of rock art sites because that would be both beneficial to the community and for the conservation of the site (Baycan & Girad 2011).

CHAPTER 3: METHODOLOGICAL APPROACHES

Heritage has been theorised as a range of social processes and experiences through which people invest things, places and practices with values and sentiment, and claim them in collective ownership or guardianship, to affirm continuity and identity (Filippuci 2009:320). For this reason, ethnography and more broadly qualitative methods have become key approaches in heritage research in recent years. As a social science, this research used multiple integrated methods in order to produce information that might answer the research questions (Jick 1979; Andrews 2016). Care needs to be taken whenever a research design is being made (Creswell 2009). An ethnographic approach would ask questions about people's lives and observe how people interact with each other and their surroundings (Dibden 2019). From the primary ethnographic questions, qualitative and quantitative data analysis would be implemented (Glass 1976). The qualitative data will assist in knowing how the different sites operate and the quantitative data will show how many people do the activity and how many sites have similar operations.

The study shows the significance of the site based on the community's view. Therefore the methodologies chosen should aid in documentation and analysis of perceptions, attitudes and motivations of heritage users and practitioners (Sørensen & Carman 2009; Keitumetse 2005, 2009a, b; Filippuci 2009). In this chapter, there will be an analysis of methodological approaches to investigate community attitudes and practices regarding community-run rock art sites in southern Africa, in order to explore how these practices contribute to sustainability [or lack thereof] of such community-based ventures around rock art sites. The methods used include web-based research, use of semi-structured and free-flowing interviews (individual and group) and fieldwork. The fieldwork part of the study is based on interviews and observations at Nsangwini rock art shelter in Eswatini. The Eswatini case study is compared with other southern African case studies. A brief description of the methods, data analysis and results now follow.

The research project was undertaken in 2020 and 2021 at the height of the Covid pandemic and because of this much of the fieldwork and method had to be translated to a virtual context.

3.1 Web-based research and Case Studies

Web-based research has been increasing since the turn of the century and has grown exponentially within the last decade (Zimtat & Crebert 2002). This method has become a primary way of accessing information for research. The information used here is found in the archives and databases of the University of Witwatersrand libraries as well as sources of information such as academic journals accessible online. Seven case studies are presented in this study. Of these, Nsangwini stands out as a unique case because the community appears to have 100% control over all aspects of the running of the site. It is noted that many sites presented here may not have the same involvement of community in their running, but each of them was chosen because there is some aspect of community involvement in their running, and in the literature they are reported as being 'community-run'. The notion of what defines a site as 'community run' is returned to in the discussion chapter. The premise of selecting the case studies was that their associated publications described them as having community involvement in making the key decisions surrounding the running of these sites (i.e. Nsangwini rock art shelter (Forrester 2009; Lukhele 2013; Maphalala 2018), Chinhamapere rock art site (Jopela 2010), Chongoni rock art area (Chiumia 2012), Game Pass shelter (Laue *et al.* 2001), Tsodilo Hills World Heritage Site (Keitumetse & Nthoi 2009), Wildebeest Kuil rock art site (Morris 2012) and Twyfelfontein World Heritage site (Kinahan 2010).

Community-run public rock art sites is a theme within the study because the aim is to show if such involvement can develop a sustainable and successful framework for a site's sustainable management. The case studies have the potential to highlight the various contexts within which particular topics can be discussed (Yin 2003; Kohlbacher 2005). The core case study - Nsangwini - is used to contrast and compare to the other six case studies. Despite the usefulness of this method, scholars have pointed out the common weaknesses of the bias of a 'single-case research design' and suggestions have been made on how to balance such limitations (Schensul & Le Compte 1999). Therefore, to balance this research, other case studies from southern Africa were considered where the involvement of local communities in the use and management of rock art sites through community-based ventures has been noticed. Cognisant of the fact that the core case study, Nsangwini, is not on the UNESCO World Heritage Sites, some sites that are on the list were selected because they are World heritage sites, to see if there would be any difference between the management of such sites and community involvement.

These study sites were also selected to obtain a regional understanding of issues of similarity or difference in terms of sustainability of community-run ventures.

3.2 Formal and informal interviews

According to Sørensen & Carman (2009:164) the analysis of various aspects of people's attitudes towards past material culture constitutes a major area of heritage research, and the interview is one of the most commonly used qualitative methods in such studies. To examine how rock art sites are used in community-run enterprises, a series of interviews were conducted. As suggested for such heritage studies, the interviews were formal and informal interviews in accordance with the comfortability of the participant to gain insights about how people relate to the past and the nature of that relationship (Bernard 2006; Sørensen & Carman 2009). Some people chose individual interviews and others opted for group interviews. Different aspects that relate to the economic, cultural, environmental and social sustainability of community-run rock art sites were also addressed.

The stakeholders include community members residing within a 5 km radius of the rock art site, as based on the size of the Nsangwini community these were likely to be most impacted upon due to their proximity to the site. Other stakeholders are the rock art site managing bodies, tour guides, heritage site managers and researchers with relevant knowledge and experience on the topic and the southern African region. In fieldwork in Eswatini, the community members interviewed were above 40 years and living in the area for more than 20 years, because they would have more knowledge about the past, the rock art shelter and heritage links than younger people (Maphalala 2018). When a survey of the area was done and the request to interview community members was made, it was indicated that the people who would know more about the site were the elderly as the younger people often do not engage in community decision making. The interviews were conducted in-person and over zoom (once the Covid 19 pandemic started in 2020). The in-person interviews were set up semi-formally so as to give the interviewee enough freedom and flexibility to answer the questions as best as they could and to allow follow up questions, following the natural flow of the interview. This means that the sitting arrangement was casual and made to feel like a general conversation.

There were 35 people interviewed in total with two group interviews, 12 individual interviews and 3 zoom interviews. There is a system in Eswatini of total transparency especially when it

comes to matters that affect the whole community. Thus the meeting with the Nsangwini rock art Committee personnel was done as a group and the community elders were also interviewed as a group. Some members of the community stated that being in the group was more relaxing to them because otherwise they would feel like they are under interrogation. Some people claimed that it allowed them to remember better as the other people were talking. This did provide an obstacle in that certain individuals spoke more than others and tended to dominate conversation in the group setting. To counter this, effort was made to try to make sure all individuals said something, but ultimately out of the group of 18, 6 people had more to say than the rest. In contrast with the group interview of the Committee members at Nsangwini, because there were only three participants, everyone had ample time to answer the questions. The issue of confidentiality among the community was not the problem. It seemed that the issue was the individual interviews because the other people did not know what was being said in secret. The people who had individual interviews were the members of the Chief's council as they did not have the secrecy worries. The interview with the Chief was different because there were some members of his court present as observers. They did not answer as they were just there for his protection and protocol's sake.

A request for interviews via zoom was sent to various local community members, site overseers, site managers and researchers at all the case study sites to discuss their opinions and knowledge about the questions raised in the research. Responses varied from people being available for interviews and others needing to have permission from their superiors before they could take part. The zoom interviews were a mitigation plan made after the National Lockdown in South Africa and the difficulty with any form of travel. It is noted that the zoom interviewees are not fully representative of the community members, but I did have questions in place for their calibre also. Ultimately, interviews were conducted with the two site managers of Chongoni Rock art area, Malawi, a researcher who has worked among the community at the Chinhamapere rock art site, Mozambique and a researcher who has worked among the community at Game Pass Shelter, South Africa. The set sample questions found in the appendices were also followed during these interviews with minor deviations to get clarity on an answer or for more information (Appendix 1).

Confidentiality of certain participants (mostly the participants around the primary case study) was key, because no one should feel anything they say will be held against them within their community or elsewhere hence this was emphasised to participants. However there were 36

exceptions to this which was requested by the community members. The downside of one of the group interviews was stated before the interviews started but they noted that it would also keep the researcher in check not to write misinformation about the community as they would have witnesses about what they said. The option to opt out at any point before and after submission of the thesis was also indicated so that if a community member felt that they did not want to participate the evidence of their involvement would be removed. Pseudonyms are used in the thesis to conceal identity e.g. participant 1, 2, 3. Verbal consent to record the interview was obtained for all interviews for transcription purposes, referencing and to ensure accuracy of interview report (McGinn 2008). The participants were given contact details for the researcher and the supervisor if they changed their minds later. Nevertheless, a number of informants were keen to have their names made public as contributors to the study. Interviews were conducted in SiSwati or IsiZulu and English, all these languages are those that the researcher is fluent in.

Ethics clearance for the study was obtained from the Ethics Committee of the University of the Witwatersrand (clearance number H19/03/17). This is a rigorous process whereby all aspects of the research project are considered, thus once a project has been cleared by the ethics committee, their guidelines are followed to ensure there was no unethical conduct on the part of the researcher.

3.3 Fieldwork and Data Analysis

Multiple trips were taken to Nsangwini Rock art shelter in Eswatini in 2018; the first being to get acquainted with the area and to request permission from the elders to conduct interviews in the area and the subsequent trips were to conduct interviews. Some interviews were done at the Royal Kraal where the traditional court has weekly meetings (Figs 1, 2 and 3) and others were conducted in the vicinity of the rock art site (Figs 4 and 5). Twelve individual interviews were conducted and two group interviews that had a mixture of men and women were also carried out. The larger group interview (Fig. 3) did not allow for free dialogue of some community members because there were certain people who were more vocal than others. However the reasoning for the group interview was for transparency among them as community members. The group interview also aided in memory revival for some individuals who had forgotten some information. A picture of the second group interview with the Nsangwini Rock Art Site

Management committee can be seen in Figure 5. The information collected from the interviews and desktop study plus the observations made during the fieldwork was used in the analysis.



Figure 1: The Nsangwini Royal kraal, *umphakatsi*.



Figure 2: The Nsangwini community hall where some interviews were conducted.



Figure 3. Group interview with Nsangwini community members at the Royal kraal.



Figure 4: An individual interview between the researcher (left hand side) and the local community guide from Nsangwini at the reception to the rock art site (note the use of local materials and methods in its construction).



Figure 5: Meeting with Nsangwini Rock Art Management Committee members (left hand side) and Wits university students (right hand side).

3.4 Limitations of the Study

The first limitation of the study is due to the varying degrees of community involvement in the community-run rock art sites in southern Africa. The term community-run rock art sites was used to account for community involvement in the managing and running of the site no matter how little or great their involvement is – this does vary a lot between the different community-run rock art sites in southern Africa. This difference is dependent on the different settings and institutional arrangements. Sometimes the literature states that the community has more involvement than it actually does. Differences in the publications years of papers consulted during the course of this study will have affected the data gathered on each site. Since the study is about understanding the factors that make a rock art site sustainable, these sites were still included in the study for comparative purposes. What became apparent during the research was that at some sites there is claim of community involvement but basically the community is told what is happening and not given a chance to raise their opinion independently and even if they do, it is ignored. The tensions that arise from the miscommunication between the community

and the legal authorities' impacts on the success and failure of these sites, thus the sites were included for discussion.

The second limitation of the study is related to the impact of the COVID-19 pandemic and the related restrictions on movement, including lockdowns in southern Africa. In South Africa, the lockdown has been in place since 26th March 2020 (South Africa 2020). This resulted in the decision to ban international travelling, physical meetings and events. This had a big impact on the initial work plan. The implementation of "working from home" and the necessary shifting from physical to virtual engagements resulted in delays and postponement of some activities as people and institutions were also adjusting to the new context imposed by the COVID-19 pandemic. The planned fieldwork amongst the community living in the vicinity of Game Pass Shelter, South Africa and all in person fieldwork and interviews that had not been done at that point had to be abandoned in the light of the restrictions imposed by the COVID-19 pandemic. The interviews held at Nsangwini, contained in this thesis, were collected before the COVID-19 pandemic was a reality. All subsequent interviews were conducted remotely. This also came with challenges of connectivity with unstable connectivity at times and disconnections. The patience of the interviewees was highly appreciated in this regard. The option of questionnaires was never really considered because extra questions would have not been asked based on the responses during the interview.

The third major limitation and possibly the most impactful on the change in direction of the research itself was the inability of the researcher to interview community members around Game Pass shelter, in South Africa. Due to COVID-19 protocols all arrangements for telephone or online interviews had to be made through intermediaries who are in charge of the upkeep of the site and communication between the community and authoritative bodies. One of the intermediaries then indicated that the community members will not be talking and "are unwilling to do interviews because they are researched out", too many people have come to do research about the community, and they do not understand why they should be subjected to another. In this instance an effort was made to send a questionnaire to the intermediary, but no efforts were led to an interview. Thus it was not possible to access the opinions and voices of the local community members for this case study as had been my original research plan.

CHAPTER 4: COMMUNITY-RUN ROCK ART SITES

Seven case studies will be examined in this chapter. The communities at these sites have all, at some point, found value and significance in their local rock art sites. This value is either spiritual or economical. It is evident that for a community to show interest in a site there has to be some connection to it. The location of the sites, daily operation and management of the site will be outlined. Where interviews were possible, key points that came out of these will be mentioned. The sites discussed will be Nsangwini rock art shelter in Eswatini, Chinhamapere rock art site in Mozambique, Chongoni rock art area in Malawi, Game Pass Shelter in South Africa, Tsodilo Hills world heritage site in Botswana, Wildebeest Kuil in South Africa and Twyfelfontein world heritage site in Namibia.

4.1 NSANGWINI ROCK ART SHELTER, ESWATINI

Nsangwini rock art site is situated in the Hhohho region in the Highveld of the Kingdom of Eswatini, near the Mbabane-Piggs Peak Road (Fig. 6). The granite rock art shelter is a 10-minute steep walk from the reception area, which was built by the community in traditional Swazi stick and mud method with a dung and clay floor, using locally available materials and knowledge. There is also signage to the site made by local community members (Figs 7 and 8). The rock art shelter is situated at coordinates S26 o 04’10.5” and E031o17’33.3” at an elevation of 616 m overlooking the Komati River (Figs 9 and 10). The area received its name from past Swazi kings passing through and resting in that area (Lukhele 2013). The king would smoke marijuana near a tree and eventually the marijuana plants grew around the tree. The area got its name from there as a ‘place of marijuana’.

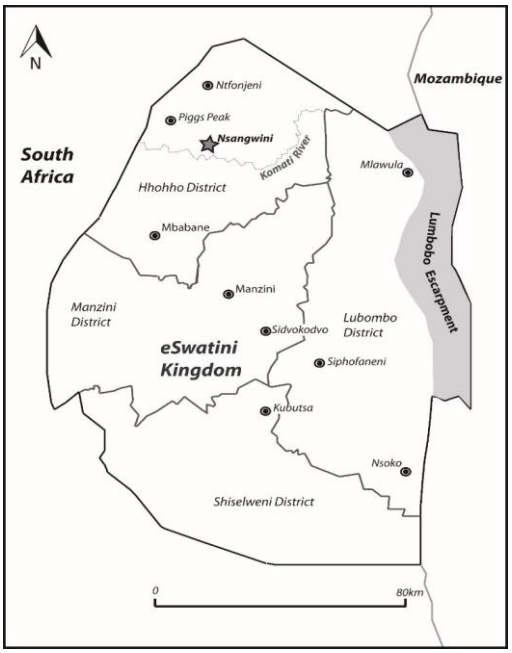


Figure 6: Map to show the location of Nsangwini in the Hhohho District, Eswatini



Figure 7: Reception to Nsangwini rock art experience, built using local materials and traditional methods. Note the fresh dung floor and grindstone.



Figure 8: Signage to the rock art site made by the local community of Nsangwini.

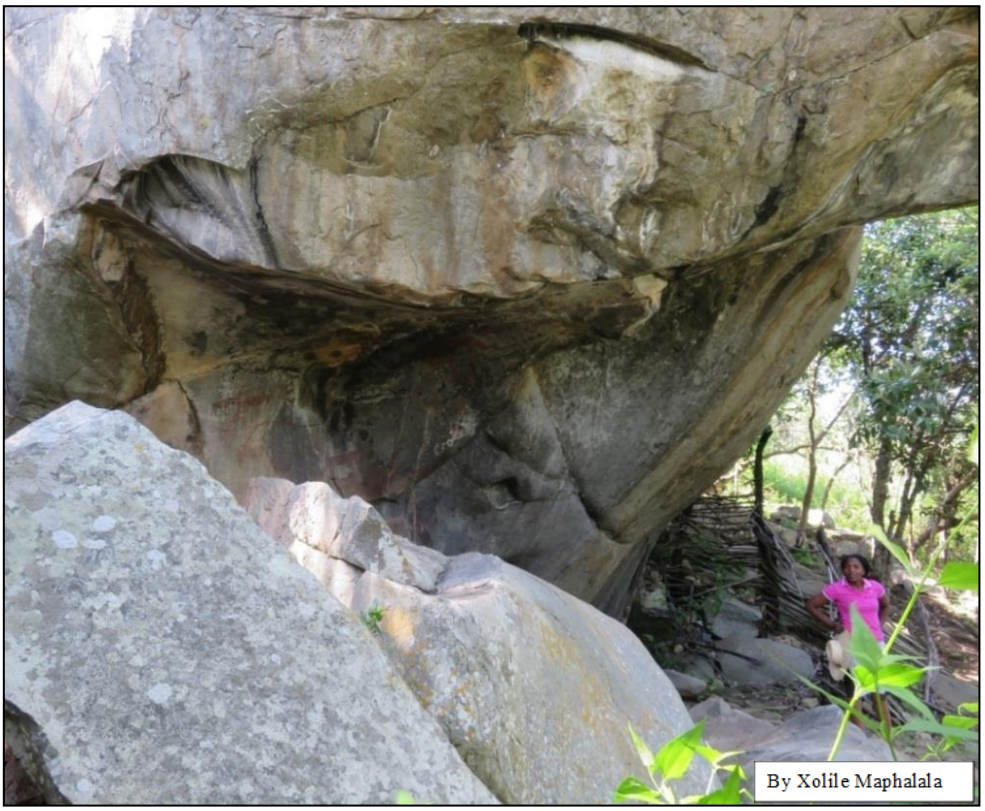


Figure 9: View of Nsangwini shelter, note the rock art on the back wall. The local community guide who accompanies all visitors to the site appears in the photo.



Figure 10: View of the Komati River valley, taken near Nsangwini Shelter.

The shelter is a small and part of the floor is covered by large blocks of granite which have fallen from the overhang (Masson 1961). Nsangwini Rock Art Shelter is a rock art site that contains fine-line paintings that are concentrated on back of the rock shelter walls. These paintings include human-like figures that are painted in red, black and yellow pigment, therianthropes (with wings) and animal figures like a blue wildebeest, an elephant and fat-tailed sheep (figs 11, 12 and 13) which are described in detail in Masson (2011). The paintings are assumed to have been made by hunter-gatherers of San descent, although the site has not been excavated nor dated (Price-Williams 1980, Smith 2004, Masson 2011). The presence of domestic sheep in the panels places these paintings within the last 2300 years BP (Russell & Lander 2018). Some of the figures faded because of heat and smoke from past fires (Masson 1961) (Fig. 14).

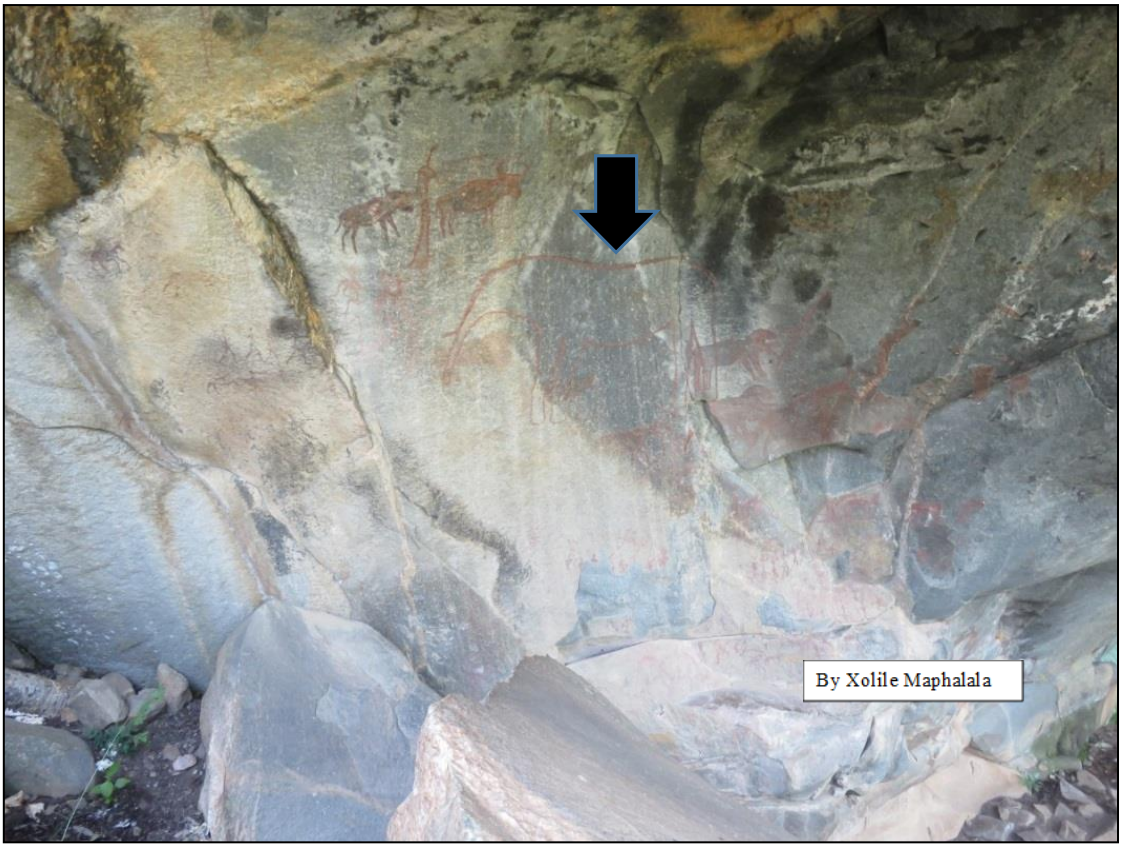


Figure 11: Rock art at Nsangwini shelter. Note the outline of a large elephant in red pigment.



Figure 12: Painting of winged, monochrome red therianthropes.



Figure 13: Painting of black human-like figures, fat-tailed sheep and red bull.

The site is on Swazi Nation land, under the ownership of the king, and the control of the local chief (Lukhele 2013). Its protection falls under the Swaziland National Trust Commission Act V of 1972 which is the legislation that protects archaeological sites in the country (SNTC 1972). The law states that all land in Eswatini belongs to the king and the Chief has oversight over the land. It is under this law that the Nsangwini community manages the site under the watch of the chief. As the Eswatini National Trust Commission (ENTC) is the custodian of all archaeology in Eswatini, the local community of Nsangwini are thus trustees of the site. They report to the ENTC if there is any danger to the rock art or the site, for example, any damage or destruction to the site, even though they are allowed total control over the daily running of the site and the income it generates. The site is run with the permission of the ENTC, and the tours are monitored (through statistics capture facilitated by the site guide) by the Eswatini Tourism Authority (ETA) formerly Swaziland Tourism Authority (STA). The site was officially opened in 2004 and since then all decisions regarding the site are sanctioned by a committee appointed by the local community, with oversight from the locally elected chief's Council. The Nsangwini community has been running the site since with no daily oversight by the legal authorities.

As observed during fieldwork and interviews in 2018, the Nsangwini rock art shelter is run solely by the local community of Nsangwini. The Nsangwini community appoints a local person to guide tourists to the site and all income generated from tourist visits' to the site is held by the Nsangwini Rock Art Management Committee and spent by the community on community-run initiatives. The community meets twice a week (Thursday and Saturday) to discuss community issues. Once a month the rock art committee and tour guide need to give an account for how the month progressed and account for the money they received during tours at the meeting. This means that the community manage the site and conduct tours with a local tour guide. The ETA is given quarterly and yearly statistics of the number of visitors the site had during that time, so that they can do national tourism statistics. There are brochures made by the Eswatini Tourism Authority which promote tourism within the country including rock art tourism (Lukhele 2013). Nsangwini rock art shelter appears on the brochure, and this has helped to increase the tour numbers.

The locals call it '*Embhalweni*', the place of writings, in recognition of the rock art on its walls (Masson 2011). Community members know about the sites and have grown up knowing of the site's existence as it was not a secret. This is made evident by a wooden fence that partially remains because it has been damaged by years of being exposed to different weather conditions. The fence was erected by Chief Molwane Dlamini in 1967 (Masson 2011).



Figure 14: Human, animal and therianthrope figures in red. Note presence of yellow pigment.

There is a fence around the greater perimeter of the site to prevent herdsmen from grazing their cattle near the shelter. The community is eagerly invested in the site because it benefits from the tours with the income generated. Therefore they are very protective of the site. There is not an exponential change in the value of life for the community however they have been able to make some improvements like roads being fixed and schools being repaired. During an interview with the chief when asked whether the site was good for the community he responded, "*It is a beautiful thing for the community. I heard reports from far that they bought traditional attires for some people who were going to the King's Kraal and now there is a child who is vulnerable and they want to pay for their fees*".

When community member 1 was asked about the site she said, "*Yes we have gone there (the rock art site). We loved what we saw at the site. But with education many people came. What upsets us is those who ruin the paintings because now it is not as visible. So sometimes education can be dangerous, it is poisonous. Before we learnt about it we did not mind it, we would look at it, be happy, question what it is and laugh. Those who are educated scrape off the paintings and ruin it, so how can we protect it. There is little we can do because the money for the fence it is not available. If we could have it indoors and no longer outside because indoors no one would go without permission* [so as to protect it]. *Now they play there when we go look it is deteriorating eventually it will not be there anymore. We need help to build a house for it and lock it up. Those who want to scrape it off will have no chance to do it. So those who are educated are the ones scraping it off they are jealous. Something so beautifu*l." This emphasises how much local community members value the site. This sentiment was echoed by many community members because they saw something beautiful even though they could not identify with the art spiritually, but they saw the value of it based on aesthetic and economic value. Many people had thoughts as to how to improve tour for the site (like tarring the road and having better signage). Others thought of how to improve the livelihoods of the unemployed by getting them to make crafts to sell at the reception area. This is good for the sustainable management of the site because that means people will conserve and preserve it.

There was also an opposing view from a community member who was sceptical of the committee members and the money that was declared. He voiced his concerns as follows, "*Unfortunately I have to be honest, I was there when the people came to open the rock (Swaziland Tourist Association) after 2003. But when I hear they say that the funds helped at the school, they say the school blew away, they are lying in my name. When I hear there was*

corruption they borrowed the money and used it. Today there is no accountancy. I even crack my head wondering how the tourism people can have a way to monitor this thing. We Africans are weak in mind. You can write that down." This statement is important to show that people have different perceptions. As much as there could be some who are happy about the site, there could be individuals who have a different opinion, and their opinions matter too. The claims of this individual were followed up in the subsequent interviews and no one supported this claim. In all the interviews conducted, the consistent response was that the money raised from rock art tours assisted community projects and was thus beneficial.

During the interview it was revealed that all participants had been to the site alone before the official opening and at least once with the guided tour. The reason many went for the guided tour was to show support for the initiative and curiosity about how the guides would interpret the pictures they had seen for their whole life. From the 33 people interviewed only 10 had an interest in the detailed daily running of the area, most were just happy to see the income from the tours uplift the community. There was no one who was involved in any business around the site, but many said that the community was in talks of starting those ventures. The groups known by the community members to be visiting the site were "white" tourists, schoolchildren, hikers and researchers. The challenges brought up about the site were that the infrastructure to the site is gravel so if there was rain, then no one would be able to visit for 3 days because the roads were slippery. The lack of consistent tours was also a challenge, this was also evident with 3 of the 4 initial tour guides looking for alternative work. An observation that was made from the interviews and visit was that the community cares about the site and want it protected because they are receiving some income from it. The daily management and running of the site are not really a concern as long as nothing happens to the site.

4.2 CHINHAMPERE ROCK ART SITE, MOZAMBIQUE

Chinhampere rock art site is found in the Vumba Mountain in the Mozambique near the border with Zimbabwe (Jopela 2010). The areas are known as Manica province and Manicaland Province in the respective countries, with most of it lying within the Zimbabwean border and only the Serra Vumba found in Mozambique (Jopela 2010). The area is mountainous with hills and kopjes that create favourable rock art production and preservation conditions (Jopela 2010). There is thick vegetation of dense savannah woodland and large trees on the hilltop which are thought to be part of the sacredness (Jopela 2010). The rock art site has San rock art

motifs characterised by red fine line brush-painted monochrome animals and anthropomorphs (Jopela 2010). The site is valued by the Shona people living in that community because they believe their ancestral spirits live there (Sætersdal 2004).

In 2002 the government recognised the role of traditional custodians in the conservation of sites in Mozambique (Jopela 2010). The traditional custodian of Chinhamapere at the time was a very revered old lady who was acknowledged by both the state and the local community. She made sure that the spiritual and social needs of up-keep at the site were met. Although the government owns the land there is a traditional custodian system in place to manage the daily running of the site. The custodian also provides sources of knowledge, practice and belief about the culture which are transmitted inter-generationally (Jopela 2010). The role of Traditional custodianship in the site's management enabled the site to be listed on the World Heritage Tentative List in 2008 (for consideration to become a World Heritage Site). The custodian would manage the daily running of the site and the government would be involved should anything major occur at the site. The custodian would report the major incident to the regional head of antiques who oversees all in the region. If the situation is above their jurisdiction then they report it to the provincial head of antiques who deals with all cultural issues in the province. The provincial head reports to the Minister of Culture and Tourism. While speaking to a researcher in the area Dr Jopela mentioned "*We can never go to the site without the traditional custodian accompanying us. And on our way to the site the custodian would tell very interesting and intriguing stories about how some government officials went to the paintings without her permission and one of them went mad and how other people have disappeared, who try to go to the site without consent*". This shows how much the traditional custodian wanted the traditional systems to be observed and the consequences to those who disobey.

Currently the site falls under the Department of Culture and Tourism which oversees the conservation and protection of all national heritage sites in the country. However, any information about the site or any campaigns including the site is overseen by the official in charge of the Division of culture, youth and sport in Manica. They in turn liaise with the community leaders in that district. There is little involvement by the community on the site, but they may come in during the dry seasons to fight fires or clear pathways after being asked by the custodian.

There are no meaningful tourism plans for the site. The people that visit the site are tourists who come through the Zimbabwean border, government officials and NGOs (who have organised trips), and individuals from Manica. In an effort to bring awareness to the site Dr Jopela narrates, "*A Norwegian funded project to the site led to a management programme for the site. To build signage, there was also a community outreach programme whereby we went around and prepared a mobile exhibition and went to three of the nearby schools. And we engaged history and Portuguese teachers to include the history and significance of the site in the curriculum. We also built a local community centre* [along the pathway to the site], *where part of the building was a library and another part was for the local artists to sit and produce their art*".

To date the major issues with the site were during the civil war (1977-1992) whereby people would seek shelter in the hills. During this time the traditional custodian was in charge and the people feared her and respected the site, she has been in charge from then until her passing away. During her tenure, in the post-war period, there were minor tensions between herself and the community in general because she would make the tourists pay a tour fee and keep the money. The basis of this contention factor was that no official fee put in place by the government, so no one knew how much the tourists were charged. Although they did not trust her with the money, she was feared and respected for her spiritual significance in the community. The case is different with the current successor who is the granddaughter of that last custodian. The current custodian is not recognised by the state system. The government tolerates her because bringing in a different sub-chief causes tensions to arise in the community, so they let her continue her role. The challenges faced by the site are: natural erosion when it rains, lack of revenue made by the site because it does not contribute to local development and the loss of a revered traditional custodian who was recognised by the community and the State. Chinhamapere rock art site is a community-run rock art site because the decisions of the daily running of the site rely on the community. The management system is sustainable for the conservation of the rock art because the custodian regulates the trips to the site (Jopela 2010). The site is contributing to the sustainable development of the community centre that accommodates local arts and the library that aids the locals with an information centre.

An interview was done with a researcher who has an academic interest in the site who gave some information about the site that was not found in journals. From the interview it can be noticed that the community is in charge of the daily running of the site but there are tensions

between the legal authorities and the custodian. This can be a problem if it escalates further. There is no sustainable income for the site because there are no fixed tour fees. The custodian is there to maintain the upkeep of the site and to protect it from any damage.

4.3 CHONGONI ROCK ART AREA, MALAWI

Declared a world heritage site in 2006, the Chongoni rock art area is located south of the central plain in Malawi (Smith 2014). There are 127 recorded rock painting sites on the large boulders across the scattered hills of the Highlands, on the gneiss rock outcrops with natural shelters and overhangs found in Chongoni Forest Reserve in Dedza District (Chiumia 2012; Smith 2014). These shelters show evidence of previous occupation (Chiumia 2012). Due to the area being densely vegetated on the larger mountains, the total number of sites could still increase to about 150 where the terrain is not accessible (Smith 2014). Over the years of his research Smith has identified the paintings as distinctive hunter-gatherer and farmer traditions which he categorised into the red animal tradition, red geometric tradition, white spread-eagle tradition, and white zoomorphic tradition (Smith 2006; 2014).

The sites are managed by the Malawian National Department of Antiquities (Smith 2014) who work together with the environmental officers of the Department of forestry, who manage the forest around the sites. The local communities have assisted in the maintenance of pathways to the site, clearing of unwanted bushes around the rock art sites in the construction of an office block and information centre (Chiumia 2012). The site manager arranges for the community to clean the site. The community benefits mainly from the forestry around the sites because they can have their animals graze there. However this also leads to the herdsmen seeking shelter within the rock art overhangs. There are some community-run ventures by the Community Based Cultural organisations (CBCs) whereby local artists make money by selling different artistic works; some do wood curving, some basketry, some do pottery (not that active) and some do postcards which have the Chongoni rock art on them. The locals are allowed to collect grass for thatching, free firewood from the forest, install beehives in the forest from which they gain income by selling the honey (Chiumia 2012). However they are discouraged from collecting near the sites. There is some access to the forest for the community because some of the original forest has been converted to nonindigenous commercial pine forest (Smith 2004).

The involvement of the community in the rock art site is highly debatable because there is no direct evidence of them making decisions regarding the site. Chiumia (2012) states that the community feels they have not been included enough and the government does as it wishes therefore they do not care about the site. However, during interview, the site managers spoke about calling meetings to the site to inform the community about what is happening in the sites. The site manager says that the tourists who visit the site are mainly from western countries with an increase of Chinese in recent years. Secondary school pupils, university students and some business people also visit the site. This has however changed drastically with the COVID 19 pandemic, with a great reduction of foreign visitation (Appendix 2, interview 2021). Only a few university students, secondary school children and business people visit with a possibility that three days can elapse without visitation as mentioned by the site manager.

The climate of the area is not favourable to long-term preservation of the rock art (Smith 2014). Awareness campaigns are held by the site managers and environmental officers to address conservation of both the rock art sites and the forest to curb the damage already done by the climate of the area like avoiding cutting trees that are closer to the rock art sites. This was mentioned by the current site manager who has been working at the site since 2010, "*During community meetings we talk about conservation in our capacity as heritage officers and then the forestry officers talk about it as environmental officers, and in the process this is what has helped to conserve the heritage area*" (interview 2021). There have been dangers to the sites in the form of graffiti and fires during the 2000s. However Claire Dean, a US-based professional conservator worked on removing the graffiti on the major public sites in 2012 (Smith 2014). The site manager also complained of wildfires that reach the sites and may cause flaking. In order to ensure the safety of the site, awareness campaigns, youth camps, patrols and awareness signs are put up to inform people about the protection of the site.

In conclusion the site manager said, "*Managing a world heritage site is not an easy thing, it is something that requires a lot of resources, and also requires a lot of effort and also requires a lot of collaboration. In my case I have said I find a lot of problems because the site is surrounded by the community that depends much on the forestry reserve and because of that there are interferences that are many to the local paintings. Like I said there are these herdsmen that usually come with their herds of flock and then they hide in these rock shelters, light fires. This one really pains me a lot because it is the one I think is really destroying much of our paintings with smoke and in addition to that there is heat which causes flaking, and we*

will lose the paintings through flaking. So for us to go to all 127+ sites we really need resources. Resources have always been a problem and we are trying to compete for resources from our financiers but as a department we are doing our best to make sure everything is put in order according to the 1972 convention." (Interview 2021, see Appendix 2).

A zoom interview was done with two of the site managers at this site. During this interview it was established that there are no payments for tours therefore the community cannot get income from the tours. However, there are CBCs which the locals get involved in and they can sell their craft there. The upkeep of the site is managed by the site managers, and they get the community involved with the maintenance process. There is no direct running of the site by the community so it is understandable how the community can lose interest in anything to do with the site. The forest is beneficial for them because they get natural resources that improve their lives.

4.4 GAME PASS SHELTER, KAMBERG, SOUTH AFRICA

Game Pass Shelter is located within Kamberg Nature Reserve in uKhahlamba Drakensberg World Heritage site (Ndlovu 2011b). The famous 'Rosetta Stone' is found along the mountain. The rock art centre was officially opened in June 2002 (Ndlovu 2009a). In 1990 the Duma clan who are descendants of the San hunter-gatherers who lived long ago in Game Pass were moved to the Thendele community, when the site was to be turned into a nature reserve (Ndlovu 2009a). There are permanent services for visitors (Duval and Smith. 2013). The drive to the site from local shops is far and the hike to the actual rock art site is steep but very rewarding (Mokoena 2015).

The spiritual attachment of the community members with the site makes them want to preserve it (Ndlovu 2009a). There were tensions in 2003 during the first eland ceremony which was to be held by the Duma clan. The clan wanted to perform the spiritually significant ritual following their own traditions, however they were barred from it because the laws of the site forbade it. This caused division between the heritage managers and the community because it was then clear that they would not perform the ritual as they wanted (Ndlovu 2005; 2009a; Ndlovu 2011b). The community members were allowed to have certain sites for ritual use, but they would have to have a heritage officer present (Ndlovu 2009a). This did not appease the community because rituals are for the community not to be viewed by the public (Ndlovu

2009a). This was the management's way to conserve and protect the site (Mokoena 2015). What occurred at the opening ceremony of the site showed that the managers are more into managing the tangible aspects of the site and not the intangible (Ndlovu 2014). The community feels they have not received the freedom to perform rituals as they were promised (the community had met with the Park management to arrange their access to the Game Pass site and environs) (Ndlovu 2009b). "*In Kamberg they have never been given any power or any significant role of being consulted*" Dr Ndlovu (Interview 2021, Appendix 2).

The local community and tourists visit the site (Mokoena 2015). There are also unofficial visitors to the site like hikers because they do not come through the office but may stumble upon the sites during their hikes. Researchers also make up some of the people who come to the site, but not many people visit the site because of its remote location. Although the community members were trained as tour guides after the official opening, they opted to quit following a disappointing salary after low visitor numbers (Ndlovu 2011a). The income generated from the tours is little (Ndlovu 2014).

The EKZNW are the landowners and are meant to be in charge of the site but they do not have the necessary understanding of rock art and AMAFA regulations (Duval & Smith. 2013). *When it comes to community involvement, in the case of Game Pass shelter there is absolutely no community involvement. Although this was promised to the community at a meeting with the legal authorities, but to date most communication with locals has been one sided, with none of the community' wishes truly being fulfilled* (Dr Ndlovu, Interview 2021). As one researcher said "we involve community members to tick a box, to say they were contacted. They were involved but they absolutely have no power in decision making. The challenges of the site are the natural degradation of the paintings, lack of maintenance, proper management plans and the lack of sustainability to the site. This is because the site has periodically closed from time to time (Blundell 1996).

The daily management of the site is done by the site managers employed by Ezemvelo. The community is called to meetings to discuss the development of the site but they do not have much say. The site is supposed to be community-run but the stringent laws of the country do not allow for autonomy by the community members. What is evident from the journals read and the zoom meeting with a researcher who has an interest in the area is that the sites cannot be economically sustainable because the tours are very few and the community does not receive

any money from the tours. The physical sustainability of the site fairs better because the managers know how to conserve and protect access to the site.

4.5 TSODILO HILLS WORLD HERITAGE SITE, BOTSWANA

Located in the north-west, Ngamiland District of Botswana 250 kilometres from Maun, the site lays on two mountain hill tops (Segadika 2006; Keitumetse & Nthoi 2009). The Botswana National Museum looks after the site, while the Basarwa (the Ju/hoansi San) and the Hambukushu communities are acknowledged for their contribution to the site (Segadika 2006). The site is significant to the community because of the spiritual value as a mountain of Ancestral Spirits (Segadika 2006). The site was made a World Heritage site in 2001 and is also protected under the Monuments and Relics Act of 2001 (Segadika 2006). As many people from churches and individuals take pilgrims to the site that means that the community can also benefit from the tours and many can benefit spiritually from the pilgrims (Thebe 2006). There is mass production of crafts for tourism purposes (Keitumetse & Nthoi 2009).

The community's opinions on the site are recognised (Mokoena 2015). There are some restrictions to the site set up as taboos in order to protect the spiritual significance of the site. The staff hired at the site work as field assistants, gatekeepers, groundsmen and cleaners (Segadika 2006). The community makes an income with the crafts produced to sell to visitors. However the participation of the community has been decreasing because the people move on to whatever can bring them income and if crafts are slow on sales they move on to something else (Basinyi 2019). It is unfortunate that the site gets vandalised which causes concern about the preservation of the site (Thebe 2006). This was seen when someone removed the 's' from the word 'Gods' from the main gate signage (Segadika 2006).

The community has had active community participation since before the site was listed as a heritage site. They are protective of the site because they believe that the site is spiritually potent (Basinyi 2019). Often there are members of the community who go to have rituals done at the site so as to appease the ancestral spirits (Segadika 2006). However it must be noted that the community has not been enriched by the tours and people have opened business ventures near the site in order to get an income (Keitumetse & Nthoi 2009).

Tsodilo Hills can possibly develop an economically sustainable plan because there are already means by which the community is engaging around the site. The vandalism causes concern for the physical management of the site. And too many tours can be harmful to the site because of the accumulation of dust they cause.

4.6 WILDEBEEST KUIL ROCK ART CENTRE, SOUTH AFRICA

Wildebeest Kuil rock art centre is found along the top of a low ridge on the outskirts of Kimberley (Morris 2003). The site was opened to the public in 2001 (Morris 2012). The site has 430 rock art engravings (Morris 2003; 2012) which lie on rocks along an 800 m trail. The site is managed by the Northern Cape Rock Art Trust (Morris 2003). The public rock engraving tours start at the reception areas and after the screening of the video there is a guided tour along wooden boardwalks among the engravings. Different engravings, carvings and pecking can be seen along the tour. Visitors are not permitted to visit the site without a tour guide which helps to bring some income to the guides (Morris 2012; Duval & Smith 2012; Mokoena 2015).

The history of the public rock art site is that the community involvement at the site is from the !Xun and Khwe San communities who were given descendant privileges although they were not local to the site, having been relocated here from northern Botswana and Angola (Morris 2003, 2012). They have a say in running and managing the site and are also tour guides (Mokoena 2015), although Morris (2012) recognises that this is actually not much in terms of their upliftment. This community sees the rock art present at the site as an extension of their own heritage therefore it is important to them (Mokoena 2015). The San communities also benefit from treaties signed with the local authorities on settlement at camps, although this is not linked with rock art (Morris 2014).

There are two communities present near the site; the San-speaking re-located community and the local community of Kimberley (also arguably of San descent). The re-located San-descendant community faced some contestation from the local Kimberley community before the site was officially launched as a public rock art site (Morris 2014). This tension has continued ever since and in recent years protests by the local community of Kimberley have led to fires, vandalism and break-ins to the site.

The story of how the re-located San community came to settle in Kimberley is told in a video at the site that tourists watch before taking a tour of the site. The video states how the government at that time took the San groups from northern Botswana and Angola and made them settle in Kimberley. It is unclear what the tension is about, but the reception building has been broken into many times. This could also just be because of thieves who want something quick to sell. As there is great poverty among all the local communities close to the public rock art site, it is unsurprising that many of the problems at the site arise from theft of resources and property (Morris 2014).

The site also faces danger in the form of youngsters who go bird hunting near the site and have started fires which threaten the rock engravings, due to fire damage to the rock surface and damage to wooden boardwalks (Morris 2014). The building and re-building of the site infrastructure in face of this vandalism and disturbance are costly for the management of the site. There also are burnt engravings along the public rock art walk because of wild fires. Graffiti is also a problem at the site, some of which started a long time ago (Fig. 15).



Figure 15: Colonial period graffiti near rock engravings, Wildebeest Kuil rock art centre.

The low visitor numbers to the site mean that the income generated remains low. The funds raised are not enough to maintain and sustain the site and staff (Morris 2014).

the information gathered from publication, it is apparent that Wildebeest Kuil struggles with its conservation, preservation and infrastructure as a consequence of vandalism, crime, and both deliberate and wild fires. Economic sustainability at the site cannot be attained because visitor numbers are extremely low. Community involvement at the site is over-shadowed by ongoing disputes between the local Kimberley community and the re-located San community.

4.7 TWYFELFONTEIN WORLD HERITAGE SITE, NAMIBIA

Twyfelfontein Twyfelfontein World Heritage site is found in the Kunene Region of north-western Namibia, which is about 480 km north-west of Windhoek (Imalwa 2016). The hilltop is made of sandstone boulders which have the rock art on them (Kinahan 2010; Imalwa 2016). This site represents the largest concentration of rock art in the region, with over two thousand images of hunter-gatherer ritual art (Kinahan 2010). These engravings show the ritual and economic practices of the hunter-gatherers over at least 2 000 years (Kinahan & Kinahan 2006; Kinahan 2010). There is a buffer zone around the site, as mandated by its World Heritage listing, which aids in the protection and preservation of the site (Kinahan 2010). The site has exceptional preservation of the art (Kinahan & Kinahan 2006). It was inscribed to the World Heritage list in 2007. The local community think that the rock art makes the place significant and not its World Heritage status (Imalwa 2018). The site is managed by National Monuments Council of Namibia as both a National Monument and a World Heritage site (Imalwa 2016). Site management in Namibia is generally weak, hence in 2002 the European Community funded the major repair and rehabilitation work at the site (Kinahan 2010). There is a natural threat to the site because the rocks are extremely friable. So when there is higher visitor pressure this may be damaging to the site (Kinahan 2010). The way visitor traffic is monitored and controlled at Twyfelfontein is such that in order to access the site one has to go through the reception centre (Duval *et al.* 2017).

The local communities have been involved in the planning and execution of the management of site and some have worked as tour guides or part of the maintenance staff as cleaners or cashiers (Kinahan 2010; Imalwa 2016). Even though there is such employment at the site as guides, there are no definitive strategies on how to develop the community through the site

(Imalwa 2016). The management plan of Twyfelfontein, deems that the local community has to be involved in any ventures regarding the site (Imalwa 2016). The members of the community have also been trained to restore, preserve and protect the environment and the rock art (Imalwa 2016). The community members' motivation was investigated by previous researchers and their attitudes towards the conservation of the rock art was found to be economically motivated (Imalwa 2016). Before the Covid 19 pandemic, the site recorded a high number of visitors for a rock art site, averaging to more than 50 000 visitors every year (Kinahan 2010; Imalwa 2016).

The site is managed by site managers and the community get involved in some aspects of the management of the site however they do not have full control over the running of the site. The community is involved because they get to make money from the site tours with their business ventures. These business ventures are not stable though as they tend to fluctuate with visitor numbers. It is important to note that any increase in tourism at the site beyond the previous threshold of 50 000 visitor per annum will put the physical sustainability of the site in jeopardy (Kinahan 2010).

Table 1: Comparative analysis of heritage sustainability across seven rock art site with community involvement in southern Africa

COMPARATIVE ANALYSIS OF HERITAGE SUSTAINABILITY IN SOUTHERN AFRICA				
Three Dimensions of Sustainability	**Parameters for Assessing the Sustainability**	**Nsangwini Rock Art Site in Eswatini**	**Chinhamapere Rock Art Site in Mozambique**	**Chongoni World Heritage Site in Malawi**
Environmental Sustainability	How are the environment/natural resources around the site used and protected?	The site is located on Eswatini Nation Land, which is acquired through Swazi customs and local community political systems. The traditional chief of the community acts on behalf of the ruling King in managing land allocation and its resources. The traditional authority is the custodian of the sites and the immediate landscape around the site.	The rock art is located in a mountainous area with hills and kopjes, and thick vegetation of dense savannah woodland thought to be part of the sacred hill. The traditional management or custodianship system in place ensures that site custodians control use and access to both natural and cultural resources around Chinhamapere sites on behalf of the community. The importance of Chinhamapere has motivated people to try to practice sound heritage and habitat conservation principles (Jopela 2010, 2011).	The rock art sites in Chongoni are located within a forest reserve. The natural environment around the site is well protected. The area's topography of rock overhangs among wooded slopes and grassy clearings provides a protective setting to the rock art sites.
Inclusive Social Development	How does rock art contribute to social inclusion?	The rock art site is an essential icon of the local community identity not because of any direct association with the past material culture but because of the social-economic role the site plays within the community. The site is one of	The ritual importance and holiness of the site are well known throughout the region. A small ceremony is performed before any visitation to the site. Tourists and scholars must perform this same ritual and thereby experience traditional rituals. Rock art sites around	The rock art site is an important icon of the local community identity and some of the sites are associated with ritual activities (initiation) amongst the local communities. However, the majority of the local communities in the villages within the World Heritage site have very limited awareness of the Chongoni ancient rock paintings and their cultural

		the few rock art sites open to the public in Eswatini.	Chinhamapere play a significant social role within the community because the site is regarded as sacred or at least located in a landscape associated with sacred values. Some rock art sites are used in rainmaking rituals, part of the indigenous farming practices.	and historical importance (Malijani 2019:34).
	How does rock art enhances quality of life and well-being of communities?	The local and traditional authorities have put structures in place to facilitate the public visitation of the rock art site. The revenues generated from the site visitation are used for several local social projects (e.g., upkeep of the local school, feeding of Aids Orphans, salary to local guides) contributing to the community's well-being.	After its inauguration as a spiritual and ceremonial shrine of the Manica people, rainmaking, thanksgiving and fortune-seeking ceremonies were performed at the site. Some ceremonies are still practiced at the site, but it is mainly used for spiritual and educational purposes. Some ceremonies are performed away from the site, at the bottom of the hill beside a large and sacred rock, which acts as a shrine. Chinhamapere revives community faith and reminds people of a previously proud Mozambican cultural heritage and restores a high regard for traditional leadership. Rock art contributes to the social well-being of the communities around Chinhamapere because of the perceived role they play	The symbols in the rock art, which are strongly associated with women, still have cultural relevance amongst the Chewa, and the sites are actively associated with ceremonies and rituals. As a centre of traditional and religious ceremonies, the rock art area encapsulates living cultural traditions (Malijani 2019:35).

			within some social practices (rainmaking ritual), which are fundamental for agriculture, food security, and the spiritual well-being of the communities (Jopela 2011).	
	What is the involvement of local communities at the management of the site?	The local community has a leading role in the management of the site. The community appoints a local person to guide tourists to the site and all income generated from tourist visits' to the site is held by the local management committee and spent by the community on community-run initiatives. The government does not have any direct influence on the daily running of the site.	The local community has a leading role in the management of the site through the site custodian and the traditional authority that oversee the access and uses of the site and the entire landscape around it. The site has one entry point manned by the traditional custodian to ensure proper management and control. The government does not have any direct influence on the daily run of the site.	Given the management framework (where the rock art is located within the nature reserve), the local community does not play a significant role in the management of the site. Although the community is consulted through local communities' organizations, the management authority from the State manages the daily running of the rock art site.
Inclusive Economic Development	Does rock art helps generate income and sustainable livelihoods for local communities?	The primary source of income generation from the site is associated with tourism activities. Although the exact figures of revenue are not provided (no access was granted), the site generates income that is significant enough to contribute to some of the social projects undertaken by the community (e.g., upkeep of local school, fees for	There is no significant income generated at the site since there is no entry fee that is charged for visitation. Often visitors offer some money to the site custodian as a token of appreciation. The economic contribution of the site to the community is negligible. There is a fundamental lack of existing finance, which any development sorely needs.	Currently, the people of the Chongoni area feel excluded from the tourism development processes happening in the area. Their interests are rarely taken into account in decision-making processes related to cultural heritage tourism development. Notably, there is a problem with communication and collaboration between government authorities, local communities, and other stakeholders (Malijani 2019:35).

		community tour guide, provides school scholarships and to support orphans children in the community).		
	Are there sustainable economic activities related/associated with conservation of the site?	Although Nsangwini is a well known rock art site and tourist attraction within the country, there are no other economic activities directly associated with the site. The lack of consistent tours due to lack of visitation is a challenge at times. This led three of the four initial tour guides to look for alternative work.	Although Chinhamapere is one of the most popular rock art sites in Mozambique, there are no economic activities directly associated with the site.	There are no economic activities associated with the conservation of rock art, and the level of community integration in cultural tourism is minimal.
Three Dimensions of Sustainability	**Parameters for Assessing the Sustainability**	**Kamberg (Maluti Drakensberg World Heritage Site) in South Africa**	**Tsodilo World Heritage Site in Botswana**	**Twyfelfontein World Heritage Site in Namibia**
Environmental Sustainability	How are the environment/natural resources around the site used and protected?	Open to the public in 2002, the Kamberg Rock Art Centre is situated in the central part of the Maluti-Drakensberg World Heritage Site. With its pristine steep-sided river valleys and rocky gorges, the property has numerous caves and rock shelters containing an estimated 690 rock art sites. The property contains significant natural habitats for in situ conservation of biological diversity. It has outstanding species richness,	Located in northwest Botswana near the Namibian Border in Okavango Sub-District, the Tsodilo Hills are a small area of massive quartzite rock formations that rise from ancient sand dunes to the east and a dry fossil lake bed to the west in the Kalahari Desert. Its remote location, reduced population, and cultural significance contribute to the conservation of the whole environment around Tsodilo Hills. The hill environment also	Twyfelfontein lies in a wide-open valley flanked by cliffs of reddish-coloured sandstone. Today the area surrounding the Twyfelfontein World Heritage Site falls within the boundaries of a conservancy called the Twyfelfontein-Uibasen Conservancy. The remoteness of a site can mean that the number of stakeholder groups and potential beneficiaries of the site is limited, which might make coordination easier. The physical conservation interventions at Twyfelfontein can be described as good. Buildings at Twyfelfontein have been designed to leave the smallest footprint

		particularly of plants (Duval & Smith 2012, Ndlovu 2009).	provides several traditionally used human and medicinal livestock plants.	possible. No cement or concrete is used (Imalwa 2018:132).
Inclusive Social Development	How does rock art contribute to social inclusion?	Local people refer to the mountain where this site is found as *KwaBathwa*, meaning the place of the Bushmen. The community organizes a yearly ritual, the Game Pass Eland Ceremony, to intensify the community's connection with the ancestral spirit world, where special requests and blessings for the group and the land can be made. This contributes to the social inclusion and well-being of the community, especially the Duma clan members, who were moved in 1990 off the then privately owned Game Pass farm so as to allow for the farm's incorporation into the nature reserve.	There are a number of reasons why the local people are attached to Tsodilo. First, it is considered home to their ancestors, which creates both emotional and personal attachments to the place, as does its beauty. Second, for a long time, the place has provided sustenance: water, edible plants, and a variety of game animals. Third, many creation myths are associated with the area. And fourth, the place is used for ritual and religious purposes. Among the latter is the San trance dance, which plays an important social, political, and economic role in community life. It is conducted in designated places around Tsodilo. The harvesting of local fruits, such as mongongo, motsintsila, and morethwa, has a close link with the hills. Rainmaking rituals also have importance both to the community and to the site. Tradition and custom prohibit	Despite the cultural significance of the rock art, the local community does not seem to have any attachment to the site besides the social-economic one. Locals are employed at the World Heritage Site as local tour guides, while some are absorbed by the Twyfelfontein Country Lodge in various occupations. An income-sharing agreement was entered between the National Heritage Council of Namibia (a statutory body of the Namibian government responsible for the management of Twyfelfontein World Heritage Site) and the tour guides association of Twyfelfontein. It allows for 35 % of revenues received from entrance fees to be shared among the tour guides as remuneration for the services provided (Ndlovu, Nyakunu & Auala 2011:34). Although most of the guides recruited are local, no strategies have been developed to ensure local communities derive maximum benefits from the site. There is also the general consensus that local communities often lack the management skills required to become effective site managers. (Imalwa 2016:138). There is apathy among the previously disadvantaged Namibian
	How does rock art enhances quality of life and well-being of communities?	The local communities were removed from their ancestral lands between 1903 and the 1990s during the process of designation of 12 protected areas. Despite the spiritual connection of some community groups to sacred places in the landscape (i.e., rock art sites,		

		ancestral graves, rock polls), the long history of dislocation has prevented the community from benefiting much from the setting of the National Park. Nevertheless, there are other stakeholders' groups who benefit most from tourist activities not necessarily related to rock art. Maloti-Drakensberg Park, World Heritage Site, is renowned for its spectacular natural landscape importance as a haven for many threatened and endemic species.	visits to rainmaking sites by the local community. This and other taboos help to protect the site and can be useful in developing laws and policies for the care and management of Tsodilo (Thebe 2006:316).	people, and they feel inferior and therefore cannot effectively participate in tourism planning. As a result, their needs are not being met through the implementation of community-based tourism projects at Twyfelfontein (Ndlovu, Nyakunu & Auala 2011:34).
	What is the involvement of local communities at the management of the site?	The Maluti-Drakensberg is primarily managed as a National Park by the Ezemvelo KwaZulu-Natal Wildlife, and the cultural heritage falls under Amafa aKwaZulu-Natali. Despite being traditionally connected to the landscape, the local communities do not play any significant role in the management of the site. For instance, the Duma clan who performs the year ceremony at the Game Pass shelter is represented in the Kamberg Rock Art Trust, which is the management authority responsible for the Kamberg	Tsodilo is primarily managed by the State through Management Authority. Participation of the local communities is ensured through the Tsodilo Community Trust. This Trust was formally registered in 2006 and is a fully community-owned entity administered by community members. The Trust focuses on community interests and projects. It has two permanent 'representation' seats in the Tsodilo Management Authority. The Tsodilo Community Trust supervises Tsodilo, guides craft makers,	The National Heritage Council is responsible for undertaking all activities related to site management which are overseen by a site manager. Twyfelfontein has a functioning joint management committee. The committee meets on an issue basis rather than as a matter of course. Despite the generally good relations between the local community and the NHC, tensions do arise from time to time around specific issues, such as access to infrastructure, management of the conservation, tour guiding etc. The local community perceived its involvement with the site as limited to being employed as guides or support staff. Community members feel they are removed from the operations of

		Rock Art Centre. Yet, all aspects of the management are to be decided and coordinated by the Park and heritage agencies. Local community members are employed as site custodians whose primary role is to accompany visitors to rock art sites and to ensure appropriate behaviour at the sites. Amafa accredits the custodians, but they are neither Amafa nor EKZNW employees (Duval & Smith 2014:36).	and operates community-run campsites. It also works in unison with the Tsodilo Village Development Committee. The local community also act as the custodian and guide for visits to intangible heritage sites.	the site, and the community does not understand some of their rights in terms of governance issues (Imalwa 2016:136; Ndlovu, Nyakunu & Auala 2011:34).
Inclusive Economic Development	Does rock art helps generate income and sustainable livelihoods for local communities?	Rock art is not the primary tourist product of the area. For instance, in 2009 out of the estimated 740 000 tourists who visited the World Heritage property, only about 27 300 (less than 4%) tourists paid to enter some of the 23 rock art sites open to the public, generating an income between R1,218,823 and R1,425,213 (this figure includes entry fees to the UDP but excludes income from food and accommodation) (Duval & Smith 2012:4-5; Duval & Smith 2014:36). The fees paid by tourists are the only income custodians receive, and	Before World Heritage listing, the Tsodilo Hills were visited by less than 3000 people annually. After listing in 2001, the visitor numbers increased from less than 3000 to 10,000 per year between 2001 and 2005. Between 2005 and 2014, visitor numbers fluctuated between 10,000 and 12,000 visitors per year. An even larger percentage of visitors to the Tsodilo Hills are foreigners (43.1 percent) who come to the site through tour operators, while domestic Botswana visitors make up 34.6 percent (Ndoro 2016:400). The	The site is located on the tourist circuit and is one of the most visited rock art sites in southern Africa. The total number of visitors to the site in 2007 was 50,392, rising to 58,257 in 2008. This growth in 2008 probably reflects an overall increase of visits to the site after the inscription of Twyfelfontein as a World Heritage site in 2007. From 2011 to 2013, there was a decrease in visitor numbers to 51,431 in 2013 (Imalwa 2016:134). While the tourism industry provides jobs for the local community, locals generally hold low-paid jobs that involve manual work, such as cleaners, kitchen assistants, cooks and drivers. Expatriate staff occupy senior and management positions. The reason given

		they are not permitted to have another job because they must be available at all times to accompany tourists. One custodian would sometimes receive as few as three tourists per month and thereby earn around 100 rand. As a result, the turnover of custodians is high and it is becoming increasingly difficult to find people willing to take on this role (Duval & Smith 2012:12-13). Kamberg Rock Art Centre has failed in its objective of improving the livelihoods of local communities, which was one of the primary reasons why the government decided to finance this initiative through the Poverty Relief Fund.	granting of World Heritage status to the Tsodilo Hills encouraged the Botswana government to commit to providing infrastructural development at the site. Apart from infrastructural development, community life changed. Clay and grass huts were replaced by cement and asbestos houses, a change seen as a marker of modernization and progress. This was due to local communities providing crafts and other tourism-related products like tour guides to visitors to the World Heritage site (Ndoro 2016:403). Since 2005 the community has also established a craft shop which has been operating intermittently due to mismanagement and, at times, the conflict between community members. Community members are also employed at the site. There are currently six community tour guides taking visitors on tours around the site. Four museum officers assist in guiding when need arise, and especially with official tours and school groups.	for this is that expatriates possess skills in the tourism industry that locals do not have. Recently, community members expressed disappointment with the World Heritage status of the site, arguing that it does not improve their lives because they are not in a joint venture with the NHC (Imalwa 2016:136).

	Are there sustainable economic activities related/associated with conservation of the site?	This failure of rock art to act as a driver for tourism in the region is attributed, amongst others, to poor communication between main actors responsible for the promotion of tourism and preservation of rock art in the region, the persistence of tourism marketing of the Maluti-Drakensberg region which continues to focus almost exclusively on the area's natural beauty, the lack of expertise by EKZNW's personnel about issues facing rock art sites, as well as a precarious custodianship system of rock art sites. Tourists have not come in the imagined numbers, and consequently, income has not been generated.	The economic activity associated with the site around Tsodilo relates to crafts production. The increased number of tourists has transformed local craft production from a socio-cultural activity to an economic one. Hambukushu women traditionally produce baskets. However, due to the amount of time that has to be invested in making a basket and in collecting the raw materials, most women have gone over to making jewelry in the form of necklaces. This is because necklaces can be produced easily and quickly in large quantities to sell to tourists.	Tourism-related facilities at the site consist mainly of a small visitor centre, including a reception area (where entrance fees are paid and the tour guides meet and greet visitors), a small permanent exhibition, a craft area, and an outside kiosk where refreshments can be purchased. The local community has been allowed to run the kiosk as well to sell traditional crafts. Close inspection has revealed that not all items are locally made by the community. Visitors complained that the crafts being sold were not related to rock art (Imalwa 2016: 125). Employment opportunities that have been created in the area of Twyfelfontein include the establishment of accommodation facilities, namely the Aba-Huab campsite, which is owned by a local man, Twyfelfontein Country Lodge, and the Damara Living Museum. It is difficult to evaluate the economic impact of visits to Twyfelfontein. There is a lack of accurate data (Imalwa 2016: 141).

CHAPTER 5: DISCUSSION

Like in other regions, African governments face the daunting challenge of balancing heritage conservation and sustainable development. Today it is widely agreed that sustainable development also takes into account the need to conserve heritage. Similarly, sustainable conservation of heritage should take into account and integrate a concern for the social, economic and environmental dimension of development (IPHAN/UNESCO 2012:9). This is premised on the understanding that heritage is a driver and an enabler of sustainable development in Africa. Despite the progressive use of the concept of sustainable development to guide heritage conservation and policy, and the common belief that securing sustainable development is an essential condition to guarantee the conservation of heritage (see e.g., Rao 2012; Barthel-Bouchier 2013), the notion of sustainable development (i.e., development that "meets the needs of the present without compromising the ability of future generations to meet their own needs" (World Commission on Environment and Development 1987:42)) and some of its underlying principles (i.e., intergenerational equity) have been criticised as being creatively ambiguous, vague and disputable and mostly impractical since there is no universal agreement on how this concept should be translated into practice (Meskell 2012).

As Labadi (2013:99) interrogated: "In our unjust and unequal world, how can those that are already deprived of resources bequeath them to future generations?" Since 2009 UNESCO has attempted to create a suite of indicators to measure the contribution of culture to development at the national level but yet nothing has been released as to how to measure 'sustainability' (Labadi and Gould 2015:204). Thus the analysis of the level of sustainability of community rock art sites in southern Africa using parameters of the three dimensions of sustainable development (environmental sustainability, inclusive social development and inclusive economic development) as per the UNESCO 2015 Policy, constitutes an attempt to contribute to the growing concerns regarding the sustainability of heritage sites as well as the challenges of understanding the contribution that heritage can make to sustainable development from the ground up.

At the practical level, heritage scholars and practitioners have acknowledged that there are still numerous challenges that often hamper the implementation of sustainable development

approaches to the conservation of heritage: mainly the inadequate staff and resources, the lack of stakeholders' engagement and an inadequate system of governance (WHC-10/34.COM/5D:4). In addition, the dominant western heritage discourse about heritage management continues to focus primarily on maintaining the heritage value of heritage places (i.e. the Outstanding Universal Value in the case of World Heritage Sites), without necessarily considering the possible implications in respect of their wider social, economic and environmental context. The exception is when these implications engender risk for the heritage (see IPHAN/UNESCO 2012:11). In fact, despite the widespread discourse on the potential benefits of World Heritage for local communities, with some noticeable exceptions such as the Twyfelfontein in Namibia, one still struggles to find successful examples whereby heritage is used to generate 'meaningful and sustainable' livelihoods for communities living in and around many rock art sites in Africa (see e.g. Taruvinga 2014).

The case studies analysed in chapter four clearly attest to the challenges of finding the "sustainability" balance i.e. the right equilibrium between the environmental sustainability, inclusive social development and inclusive economic development. While most rock art sites analysed might contribute to the environmental pillar of sustainability, due to their natural setting and the cultural significance (e.g. Chinhamapere, Tsodilo), the economic values (e.g. Nsangwini) or natural attributes (e.g. Game Pass in Kamberg, Chongoni) associated to them, the case studies show that the combination of this dimension with the other two of sustainability is not easily discernible. Most rock art sites that contribute to social inclusive development mostly by virtue of their sacred values (e.g. Chinhamapere, Chongoni or Game Pass) seem to fall short when it comes to their contribution towards inclusive economic sustainability. For instance, despite being the most visited rock art site in southern Africa, Twyfelfontein falls short when it comes to ensuring a meaningful involvement of the local communities in the management of the sites, thus not contributing enough to ensure that the site contributes to inclusive social development.

A key challenge to balance the three dimensions of sustainability when it comes to heritage sites seems to be the dominant political discourse on community beneficiation and the idea that all 'heritage must pay', to use Lynn Meskell's (2012) terminology. Although looking at the particular case of South Africa, Meskell's observations are also applicable to other contexts in

the region whereby heritage has been relentlessly promoted as a socio-economic driver mostly for impoverished communities, and particularly in the face of declining government services and failed delivery (Meskell 2012:55). Yet, a closer look into the discourse about community 'beneficiation' through heritage reveals that while the results of various 'heritage for development' type of initiative constitutes a mixture of success and failures, negative results are far more common than positive ones (see. e.g., Chirikure *et al.* 2010; Marschall 2010; Meskell 2012). As a matter of fact, this study illustrates that even when community rock art sites appear suitable by virtue of contributing significantly to environmental and inclusive social development (e.g. Chinhamapere, Game Pass) these sites fall short when it comes to contributing to inclusive economic development.

The success of rock art sites is dependent upon the success of the four pillars of rock art conservation (See Duval *et al.* 2017). These are public and political awareness, effective management systems, physical and cultural conservation practice and community involvement and benefits (Duval *et al.* 2017). The public and political awareness inform people on what rock art is, whilst conscientising them on the way to look after rock art and how to conserve and manage a site. There need to be systems in place that manage the rock art and the surrounding environment. Physical and cultural conservation practices are the steps taken to protect the site and any cultural significance of the site. All this is made easier with community involvement. The pillars would be the foundation of appropriate and well-managed economic, social and cultural development initiatives by and for indigenous, and local and regional communities thus creating sustainable development (Duval *et al.* 2017). Any shortfall in the developmental initiatives would result in a failure of sustainability.

The communities presented in this study have a connection with a site whether it is social, economic or spiritual. Most of the communities in the case studies have one or the other connection to the site. All the sites mentioned below have had the communities take an interest in them because of the rock art even though they are not the makers of the art. This is a positive marker for sustainability because when communities see a site having economic or social potential they will want to protect it (Loulanski 2006). Sustainability in terms of management of the values that make sacred sites significant to communities (Jopela 2011, 2016). Tensions between the community and legal authority or among themselves can have a negative impact on the site. This can be if someone decides to destroy the site. All of the sites have tensions

with Chinhamapere having a custodian that governing bodies do not acknowledge, the Duma Clan not being listened to by the governing body or Wildebeest Kuil where people keep breaking into the reception area. All parties would benefit from a proper dialogue where all the points of contention are addressed.

Many local communities have active custodianship in southern Africa (Jopela 2011). This advocates for how the sites are run under the traditional custodians because they have systems in place to ensure that the site is conserved, run and managed in a manner that appeases the community like in Chinhamapere rock art site. It is also important to note that not all customs or practices done by the community are actually beneficial to the conservation of the site. For example touching the rock paintings is even against the law. In some countries, the post-colonial government laws have ultimately disturbed the traditional practices of local people and have had people forcibly removed from the vicinity of rock art sites, which has also created tensions between the community and the government.

As stated above that some community-run do not have any involvement of the community in decision making. The dynamics that have brought that about will be discussed in this chapter
The data derived through the core case study exposed a broad range of issues relating to the arrangement of community-run rock art sites which are not considered sacred by the local communities. As a method, the core case study engendered a better understanding of the various factors (geographical, social, economic, political and cultural) that affect the context within which the rock art sites exist, and the interaction of local communities with such sites and the whole cultural landscape around it (Keitumetse 2009a:201).

Some sites have been weathered, burnt and have dust all over the paintings. The physical management and conservation of the site seems to be what many site managers focus on. They control access to the sites, minimise natural weathering, minimise graffiti and monitor visitor behaviour and knowledge (Jopela 2010). However, the current physical state of some of these sites is not encouraging on the sustainable development front. Some sites have signs falling off and faint such that one cannot read it, this is true for Game Pass shelter and Wildebeest Kuil (Blundell 1996). A lot of investment went into the initial building of the sites, but it seems that nothing has been done to uphold the upkeep. Vandalism to the shelter can be prevented with controlled movements to the site. The people who will be going to the sites also need to be educated on good practises to have around sites (Mokoena 2015). The education can be done

before the tour starts or at schools, so that the children can grow up knowing how to conserve and preserve a site (Pwiti & Ndoro 1999). One needs to be aware that in as much as the sustainability of the rock art site is of concern, the conservation of the environment needs to also be included because once the environmental factors change this may negatively impact the conservation of the rock art site. For example if a site is surrounded by shrubs and you cut them down completely then the shelter may be exposed to weather conditions it was not exposed to before. The large number of visitors impact the environment together with threats from mining, the spread of agriculture, and the construction of roads and dams can also affect the environment (Abungu 2006). In some cases one may need to the effects of wildlife to the site (Deacon 2006b).

The rising relevance of tourism has made these debates about the importance of tourism necessary (McGregor & Schumaker 2006). Tourism although an income generator can have adverse reactions on the weathering of a site. Thus there should be care taken about how tours are done. This means that tour guides will have to be educated on this matter as well (Blundell 1996; Smith 2006; Mokoena 2015; Barnabas 2016). Little can be done about climate change, but people can make good management choices of decreasing the traffic to the site in order to preserve the microclimate of the site. If there are more tours for custodians to have a reasonable salary then tourism can be sustainable for them (Duval & Smith. 2013). In Twyfelfontein world heritage site and Chongoni rock art area, the community members change pathways or income avenues when the current on is not working. There is some benefit to countries having tourism (Ndlovu 2009a), but it will take time to see tourism generate income while protecting the site (Deacon 2006b).

Evaluating the economic sustainability of a site is difficult because some sites have tour fees and others do not (Duval & Smith. 2013). One cannot say that every site should have fees because the laws of that country may forbid it. What can be motivated is the extra activities in the area that tourists can engage in that will bring some income to the people in the community (Duval & Smith. 2013). A community's economy should never solely rely upon tourism. It must be supplemented with a variety of community economic activities (Lukhele 2013) as whether heritage attraction numbers can be sustained is a concern. In order for rock art tourism to be sustainable there must be income generated from it through entrance fees, other community-run ventures or the boosting of the economy in the surrounding area (Deacon 2006b). There needs to be budgeting for service delivery and maintenance; these are as

essential for rock art sites as for any other product that is offered to the public. It is uncommon for non-governmental run rock art sites to be sustainable on their own especially with the unpredictability of tourism (Deacon 2006b). Management can assist the people that are looking at their main source of income from the success of the site by creating avenues to attract people to the site so that they can make sales. Nsangwini rock art shelter, Tsodilo Hill world heritage site and Wildebeest Kuil all benefit from having their sites advertised in local and national tourism books. This strategy can also be used by other sites so as to advertise the site and get more tours. Many communities supplement the income from tours with selling of memorabilia or linking the rock art tour with leisure or nature reserve tours or hikes. There is potential for community-run public rock art sites to produce local benefits as illustrated by sites such as Nsangwini rock art shelter and Tsodilo Hills world heritage site. Considerable large sums of money are invested in development of cultural heritage sites for tourism-based income-generation activities. The benefits deriving from such initiatives for the most impoverished rural communities might still be insignificant, as illustrated by the Game Pass shelter and Wildebeest Kuil rock art centres in South Africa.

There are some social factors to include when planning rock art sustainability also. This is because the community is set up in a manner that they are social with each other and lean on each other for various reasons. They can be brought together by any of these factors: Christianity, state legal systems and polices, labour migrations and globalisation (Jopela 2010). The community members will follow the customs and practices of the social system and at times avoid doing anything that is taboo. Once those social factors are known it can be easy to adapt them in such a way that they can protect the site. The plan should also factor in any social tensions that may arise because of people who may not want to associate with others.

Rock art is a highly vulnerable heritage which can only be sustainable within an effective management framework (Duval & Smith. 2013). Many of the sites use western techniques to manage the site but there could be value in using both the traditional and western techniques like in Chinhamapere rock art site. There are serious issues if communities are said to be consulted about the running of the site but in reality they have zero acknowledged opinions, like the situation at Game pass shelter. A good partnership between stakeholders is necessary as it has been brought up in this dissertation the need to never exclude community members because once they feel like they are being left out it can be dangerous for the site with no local people actively involved in ensuring its conservation and preservation. The community

outreach and consultation, whereby the communities are asked what they expect to happen at the rock art site and what they want their involvement to be, should be key (Smith 2006). The meetings with the community should not be a one-way street but be inclusive with everyone's opinion having some weight. The treatment of the sites by visitors needs to be respectful and that has to be addressed by guides before the rock art site is reached because no one wants their sacred areas disrespected. Furthermore, it is important for community members to not feel blocked from their heritage as is the case, for example, at Game Pass shelter. The donors that want to invest in the site and policy makers should consult the community. When the community deems they are uncomfortable with a certain aspect, they should be heard (Chiumia 2012). Community involvement should really be involvement and not a series of ticked boxes just to say that the investors followed the legislation. A good way to start communication with the communities is provide information about rock art conservation and the need for it.

Table 2 summaries the connections (social, economic or spiritual) that community members have with the sites considered in this study. Social connection being a sense of relatedness to the site. For example, this may come about because of rituals carried out at the site which are linked to identity or through an understanding that one's ancestors made the rock art. Spiritual connection is when one believes in the supernatural power of the site. The economic connection is restricted to a connection which is purely economic. From the table it can be noticed that only site that does not have a social connection is Nsangwini rock art shelter because the community feels that they are very distant from the makers of the site. Similarly with the cultural and spiritual connection. However, it must be noted that rituals do not happen at the site of Game Pass shelter and Wildebeest Kuil rock art centre. Nsangwini rock art shelter, Tsodilo Hills world heritage site and Twyfelfontein world heritage site are the only sites that get official tour fees. Other sites like Chongoni world heritage site get an income from crafts sold by community members. One can see from the data given that it seems that the notoriety of world heritage list status seemingly is associated with economic gain apart from the Chongoni world heritage site.

Table 2: Types of connections communities have with sites.

Rock art site Name	Social connection	Cultural connection	Economic connection	Spiritual connection
Chinhamapere Rock Art Site	Yes	Yes	No	Yes
Chongoni World Heritage Site	Yes	Yes	No	Yes
Game Pass Shelter	Yes	Yes	No	Yes
Nsangwini Rock Art Site	No	No	Yes	No
Tsodilo Hills World Heritage Site	Yes	Yes	Yes	Yes
Twyfelfontein World Heritage Site	Yes	Yes	Yes	Yes
Wildebeest Kuil Rock art Centre	Yes	Yes	No	Yes

The question of whether any of these sites can be 100% sustainable in the next five years is doubtful. Even if there was no global Covid-19 pandemic, there would still be aspects that the managers would have to engage with. However a holistic approach to all the factors discussed in this chapter is needed to at least start making a framework for sustainability. This holistic approach relies on initiatives and actions that are to be taken by governments, professionals, institutions and communities within their spheres of responsibilities (Duval *et al.* 2017). These factors include firstly that the community should have decision-making abilities in a community-run site. The Traditional Custodians, rituals and community set up should be acknowledged and integrated into a management plan for the site. A management plan for the site needs to be made, implemented and revisited again to check that every plan is still being implemented. Any tensions that all stake holders have need to be investigated and resolved. The stakeholders and the visitors need to be educated on what are the laws set to protect the site. There must be continuous management, maintenance and conservation of the site. Good economic strategies must be investigated, planned and implemented for the site to be self-sufficient. Therefore in order to have a sustainable rock art site there needs to be middle ground between conservation, access, public education, local cultural issues, and other interests (Duval *et al.* 2017).

From the comparative analysis of the case studies in Chapter four, it appears that the even for cases such as Tsodilo Hills, that seems to contribute to a certain degree to the three dimensions of suitability, one could argue that the role of the local community in the management of the

site does not afford the community representatives any decision-making powers. Thus, cases such as that of Nsangwini in Eswatini seem to be closer to achieving the much desirable 'sustainability' balance. This is a small community run rock art site, without the benefits of the World Heritage label which has contributed greatly for the tourist boom at other rock sites, and without sacred values associated to the site by the community. Without these traits that constitute major factors for the greater degree of levels of sustainability exhibited by the other rock art sites analysed, Nsangwini seems to offer a number of lessons for many "ordinary" community-based rock art sites in the region. Nevertheless, the case of Nsangwini also suggests that we need to take a more holistic approach to economic development rather than just looking at the rock art site to provide livelihoods to the entire community.

CHAPTER 6: CONCLUSION

The recognition that conservation and management of heritage such as rock art sites is an integral part of equitable sustainable development is at the core of the UNESCO 2015 Policy. Accordingly, all 193 States Parties to the World Heritage Convention, including Eswatini, should "ensure an appropriate and equitable balance between conservation, sustainability, and development, so that World Heritage properties can be protected through appropriate activities contributing to the social and economic development and the quality of life of our communities" (UNESCO 2015:4). Although the UNESCO 2015 Policy focus on World Heritage, the principles and guidelines are applicable to all categories of heritage, since in essence, all heritage sites belong first and foremost to a localized community regardless of its international recognition as World Heritage. For these reasons, I use the three pillars of sustainability (social, economic and environmental) to reflect on the lessons learnt from the analysis of different community-run rock art sites analysed in this study. Although it is widely acknowledged that culture, of which heritage forms a part, constitutes the fourth pillar of sustainable development, this position has not yet translated into official policy documents such as the UNESCO 2015 Policy or the UN Agenda 2030 on Sustainable Development Goals.

One needs to be aware that in as much as the sustainability of the rock art site is of concern, the conservation of the environment needs to also be included because once the environmental factors change this may negatively impact the conservation of the rock art site. For example if a site is surrounded by shrubs and you cut them down completely then the shelter may be exposed to weather conditions it was not exposed to before. The large number of visitors impact the environment together with threats from mining, the spread of agriculture, and the construction of roads and dams can also affect the environment (Abungu 2006).

A key lesson from the case studies analysed is that most community rock art sites across the region contribute to **environmental sustainability** by providing an ethical code of conduct that promotes responsible interaction of community members with the environment to avoid the depletion or degradation of natural resources and ensuring long-term environmental quality. The associated values (i.e. spiritual/religious or socioeconomic) of these rock art sites contribute towards the broader protection of the landscape where the rock art sites are located.

This study also shows that rock art sites across the region contribute for **inclusive social development** amongst the local communities who are the primary custodians of this heritage. Several rock art sites and their associated landscapes (i.e. Chinhamapere, Chongoni, Game Pass and Tsodilo) hold cultural and spiritual significance because the communities regard them as part of their cosmological environment. These heritage places are respected because of their ability to connect the communities with their ancestors and the spirit world. Consequently, these sites constitute an integral part of a number of social practices (e.g., rainmaking, thanksgiving and fortune-seeking ceremonies) that are crucial for the well-being of the communities. This study also shows that even in the cases where local communities do not seem to attach any spiritual value to the rock art sites (e.g., Nsangwini and Twyfelfontein), the communities still attach social-economic values to the sites because the sites constitute a source of income for the communities, irrespective of the level of income generated.

The study also shows that despite the general involvement of local communities in the management of the rock art sites, the nature and degree of this involvement is an important consideration in determining the level of contribution of a rock art site for inclusive social development. For instance, notwithstanding the different nature of the values that the local communities attached to the rock art sites at Nsangwini (socioeconomic) and Chinhamapere (sacred/spiritual), the local communities are *de facto* custodians of their heritage and they play a leading role in the management of the sites. This contrasts to the other rock art sites analysed in this study (i.e. Tsodilo, Chongoni, Twyfelfontein and Kamberg) where the local communities are only integrated at the bottom of the State management structures and their values and views are not always taken into consideration in the management of these rock art sites.

Some community-run rock art sites fail because community members are not as involved or interested as they should be. Often this occurs when some people in authority have promised to communicate with the community but fail to do so, or when expectations are falsely raised (for example, in regard to the income a site can generate). The community members become disheartened, quit jobs associated with the sites, and in extreme cases they may damage the site. The lack of funds and adequate expertise makes the problems even greater, and the sites are not subsequently managed and maintained well.

This takes us to the third pillar of sustainability and the complex question regarding the contribution of rock art to **inclusive economic development**. The comparative analysis of the case studies shows that some rock art sites in the region (e.g. Tsodilo Hills and Twyfelfontein) are able to generate decent income and sustainable livelihoods for local communities. These sites are able to promote the development of economic activities (e.g. tourism, craftsmanship) associated with heritage conservation. The fact that both Tsodilo Hills and Twyfelfontein are located in strategic tourist circuits within southern Africa and are listed as World Heritage, contributes to their marketing as key international cultural tourist destinations within Botswana and Namibia. Other rock art sites with far less public visitations (e.g. Nsangwini or Kamberg) generate less income for the communities and this poses a challenge in terms of community custodianship of the sites. Tour guides and custodians often leave their job because of the inability of such sites to generate enough income to sustain them. Yet, it is important to acknowledge that for cases such as Nsangwini, the site appears to be able to maintain itself through the contributions from visitors, since this appears to be the primary reason why local communities are so invested in protecting the site. This study also shows that tourism constitutes the major source of income in rock art sites which creates a high level of dependence of such sites on foreign visitors. Thus, any disruption of international travel, such as the one witnessed currently due to the covid-19 pandemic, have a dire impact on the ability of such rock art sites to sustain themselves.

In conclusion, the successful merging of heritage and sustainable development goals is possible. Stakeholders need to work with each other make it happen. The legislation for the protection of the site, so they need to be considered in these communications. Therefore toe answer to what makes a site successful, or fail is complex. It depends on the inclusion of all the factors listed, from good management system, proper maintenance of the site and surrounding buildings, the community being appeased, the value of a site being upheld, good income generated and education of others about the site.

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APPENDIX 1: INTERVIEW QUESTIONS FOR EACH OF THE STAKEHOLDER GROUPS.

SAMPLE QUESTIONS

A. Questions for **stakeholders with site management roles** (site manager, government official, members of management authority, etc.).

1. What is your role/responsibility regarding the rock art site?
2. How long have you been involved in the conservation and management of the site?
3. Who are the other people involved in the management of the site and what are their roles?
4. Describe the decision-making process regarding the management of the site (Who is consulted? When? Who makes the decision?)
5. What role is assigned to local community members within the management framework for the site?
6. Who are the main social groups visiting the site (e.g., local communities, foreigners) now and before the covid-19 pandemic? (request figures/statistics)
7. Does the site generate any income, from instance, from tourism related activities? (If the answer is positive, request figures/statistics).
8. What are the main challenges/threats faced by the site (e.g., environmental, financial, social) and how have such challenges been addressed?
9. In your opinion, is there any [other than financial] benefit for the community in looking after this rock art site? What are these?
10. Thank you for your time and contribution, is there any aspect you would like to add?
11. Is there someone you would like to refer me to, who would be able to contribute to this research by answering some of the questions above?

B. Questions for **stakeholders living around the site** (e.g., traditional custodians, community leaders, tour guides, local entrepreneurs/business owners, local artists/crafts, civil society organizations/NGOs, etc.).

1. How long have you been living in the area?
2. Have you heard about this rock art site or any other heritage site in the region?

3. (If response to question # 2 is positive) What can you tell me about the site? What is the significance of the site for you and your community?
   (If response to question # 2 is negative) Why have you never heard about the site?
4. Who are the people/institutions involved in the management/conservation of the site and what are their roles?
5. Are you involved in any activity in relation to the site (e.g., business, conservation, promotion, etc.)? (If response is positive) How are you involved?
6. Who are the main social groups visiting the site (e.g., local communities, foreigners) now and before the covid-19 pandemic?
7. Does the site generate any income, for instance, from tourism related activities? Who benefits from such income and how?
8. What are the main challenges/threats faced by the site (e.g., environmental, financial, social) and how have such challenges been addressed?
9. In your opinion, is there any [other than financial] benefit for the community in looking after this rock art site? What are these?
10. Thank you for your time and contribution, is there any aspect you would like to add?
11. Is there someone you would like to refer me to, who would be able to contribute to this research by answering some of the questions above?

C. Questions for **other stakeholders** (e.g., researchers, NGOs, etc.).

1. What is your interest in the rock art site? How long have you been involved with the site?
2. Have you been involved in the conservation and management of the site? How (describe your role/responsibility)?
3. Who are the people/institutions involved in the management/conservation of the site and what are their roles?
4. Describe the decision-making process regarding the management of the site (Who is consulted? When? Who makes the decision?)
5. What role is assigned to local community members within the management framework for the site?
6. Who are the main social groups visiting the site (e.g., local communities, foreigners) now and before the covid-19 pandemic?
7. Does the site generate any income, from instance, from tourism related activities?

8. What are the main challenges/threats faced by the site (e.g., environmental, financial, social) and how have such challenges been addressed?
9. In your opinion, is there any [other than financial] benefit for the community in looking after this rock art site? What are these?
10. Thank you for your time and contribution, is there any aspect you would like to add?
11. Is there someone you would like to refer me to, who would be able to contribute to this research by answering some of the questions above?

APPENDIX 2: SAMPLE ANSWERS FROM INTERVIEWS

Not all answers have been provided due to confidentiality and ethical concerns as per the Ethic Clearance certificate, clearance number H19/03/17 as issued by the University of the Witwatersrand Ethics Committee.

Outlined below are a representation of the answers obtained from the interviews conducted with the three stakeholder groups (as outlined in Appendix 1).

These are presented in three tables, as outlined below:

1. Table A1 and Table A2: Shortened answers from interviews with **Site Managers** (Chongoni, Malawi and Nsangwini, Eswatini).
2. Table B: Shortened answers from interviews with **stakeholders living around the site** (e.g., traditional custodians, community leaders, tour guides, local entrepreneurs/business owners, local artists/crafts, civil society organizations/NGOs, etc.) (Tour guide at Nsangwini, Eswatini).
3. Table C1 and Table C2: Answers from **other stakeholders** (e.g., researchers, NGOs, etc.) (Researcher, Game Pass Shelter, RSA and Researcher, Chinhamapere rock art site, Mozambique).

Table A1: Questions for **stakeholders with site management roles** (site manager, government official, members of management authority, etc.). Chongoni Rock Art Area.

Questions	**Interviewee: Site Manager – Chongoni Rock Art Area, Malawi, Virtual interview 2021.**
What is your role/responsibility regarding the rock art site?	As a site manager they co-ordinate the programmes at the site e.g. conservation, site inspection and documentation of the site.
How long have you been involved in the conservation and management of the site?	Since 2010 as a rock art officer followed by an appointment as site manager in 2011.

Who are the other people involved in the management of the site and what are their roles?	12 Village heads 5 Monument Officers Site manager Deputy director of Museums and Monuments - Conservation Director of Museums and Monuments – Conservation
Describe the decision-making process regarding the management of the site (Who is consulted? When? Who makes the decision?)	The community Village Heads and Opinion Leaders, Monument Officers, Site managers and the head of Ngoma district are involved in the decision making. Although the community members are taking directives from those in authority, their voice is still noted. The Department of Forestry is involved in the sites' management as that fall within their protection.
What role is assigned to local community members within the management framework for the site?	The community comes to help clear the roads and maintain access to the sites and to create firebreaks.
Who are the main social groups visiting the site (e.g., local communities, foreigners) now and before the covid-19 pandemic? (request figures/statistics)	Previously tourists from western countries, schools, university students and business people (e.g. before the Covid pandemic). Post-pandemic there has been significantly fewer foreign tourists, so now visitors are mostly schools, university students and business people.
Does the site generate any income, for instance, from tourism related activities? (If the answer is positive, request figures/statistics).	No payment of tours by visitors because the site is managed by the government. Community Based Cultural organisations and five artist groups sell products for tourists e.g. postcards with recycled papers, tailoring, wood carving, basketry and pottery.
What are the main challenges/threats faced by the site (e.g., environmental, financial, social) and how have such challenges been addressed?	People touring sites that are not open for public viewing, the animals that graze in the forestry, the shepherds using shelters, climate change and graffiti. These have been attended to by awareness campaigns, patrols at the sites, signage with the Do's and Do not's for the site.

In your opinion, is there any [other than financial] benefit for the community in looking after this rock art site? What are these?	There is great value as the community is happy to work with them. This is seen by a reduction in threats to the site when awareness campaigns are made and an increase during the months they are not made. Others feel good because the paintings were made by their ancestors.
Thank you for your time and contribution, is there any aspect you would like to add?	Managing a World Heritage site is not an easy thing. It requires a lot of resources, effort and commitment.

Table A2: Questions for **stakeholders with site management roles** (site manager, government official, members of management authority, etc.). Nsangwini rock art site.

Questions	**Interviewee: Rock art Committee member – Nsangwini, Eswatini. In-person interview, 2018.**
What is your role/responsibility regarding the rock art site?	To look after the site and report to the Chief and his council.
How long have you been involved in the conservation and management of the site?	
Who are the other people involved in the management of the site and what are their roles?	Tour guide Chief's council Chief ENTC
Describe the decision-making process regarding the management of the site (Who is consulted? When? Who makes the decision?)	Any matter regarding the site is brought before the council. They determine whether they can solve the problem or it requires the intervention of ENTC like the site burning or flaking.
What role is assigned to local community members within the management framework for the site?	The local community have a say in how the site is run.
Who are the main social groups visiting the site (e.g., local communities, foreigners) now and	People that come from overseas.

before the covid-19 pandemic? (request figures/statistics)	
Does the site generate any income, for instance, from tourism related activities? (If the answer is positive, request figures/statistics).	The tours bring income for the community. The tour guide receives appreciation tips from the tourists.
What are the main challenges/threats faced by the site (e.g., environmental, financial, social) and how have such challenges been addressed?	There have been people who have lit fire near the shelter making the site become blackened and flaky.
In your opinion, is there any [other than financial] benefit for the community in looking after this rock art site? What are these?	The community is known because of the site.
Thank you for your time and contribution, is there any aspect you would like to add?	There is a hope that in future the community can develop because of the work being done at the site.

Table B: Questions for **stakeholders living around the site** (e.g., traditional custodians, community leaders, tour guides, local entrepreneurs/business owners, local artists/crafts, civil society organizations/NGOs, etc.).

Questions	**Interviewee: Nsangwini Tour Guide, Eswatini. Interview In-Person, 2018**
How long have you been living in the area?	Since birth.
Have you heard about this rock art site or any other heritage site in the region?	The Nsangwini one and others in the country.
(If response to question # 2 is positive) What can you tell me about the site? What is the significance of the site for you and your community?	The site is a shelter, the information about who painted it and why, was taught when the tour guides went for training from the ETA. They used ochre to paint, which is a pigment used in Swazi culture. The money from the site helps in community upliftment programmes.

Who are the people/institutions involved in the management/conservation of the site and what are their roles?	The tour guide reports to the committee. The committee report to the Chief and his council who report to ENTC.
Are you involved in any activity in relation to the site (e.g., business, conservation, promotion, etc.)? (If response is positive) How are you involved?	Involved as a guide and caretaker of the site,
Who are the main social groups visiting the site (e.g., local communities, foreigners) now and before the covid-19 pandemic?	Western tourists, school children, university students, researchers and a few community members.
Does the site generate any income, for instance, from tourism related activities? Who benefits from such income and how?	Income is from the tours. Helped to repair the roof of a school after a storm and it also helps with other schemes like *gezemati* (community development).
What are the main challenges/threats faced by the site (e.g., environmental, financial, social) and how have such challenges been addressed?	The hikers that do not come from the reception side of the site (i.e. those hiking up from the Nkomati river valley enter the site without a guide. The paint is blackened because some boys once lit a fire under it. Animals that graze near the site. A solution to this was to add a fence to keep out the hikers, shepherds and their animals.
Thank you for your time and contribution, is there any aspect you would like to add?	People grew up seeing the site but not understanding what it is about. Seeing that it has importance is something that makes the community proud to protect it.

Table C1: Questions for **other stakeholders** (e.g., researchers, NGOs, etc.) (Researcher, Game Pass).

Questions	**Interviewee: Researcher, Game Pass shelter. Virtual interview, 2021**

What is your interest in the rock art site? How long have you been involved with the site?	Interest in the site since 2001 is research driven. Visited the site to remove graffiti and prepare the site for visitor visitation.
Have you been involved in the conservation and management of the site? How (describe your role/responsibility)?	In 2003 worked as Rock Art Manager in Kwa-Zulu Natal for AMAFA looking at the actual management of the site based on the Kwa-Zulu Natal Heritage act of the time. Consulted later by EKZNW tourism director with regards to the management site. Between 2013-2016, I was indirectly involved as an AMAFA council member receiving reports on the site.
Who are the people/institutions involved in the management/conservation of the site and what are their roles?	EKZNW as owners of the land and as managers as legislation dictates. AMAFA is consulted because they have heritage specialists.
Describe the decision-making process regarding the management of the site (Who is consulted? When? Who makes the decision?)	Before 2012 was manager appointed by AMAFA but currently the Hospitality manager
What role is assigned to local community members within the management framework for the site?	None because the community members were never part of the legal trust established for the site and when they were consulted their opinion never mattered.
Who are the main social groups visiting the site (e.g., local communities, foreigners) now and before the covid-19 pandemic?	Tourists, researchers and hikers.
Does the site generate any income, for instance, from tourism related activities?	No sustainable income
What are the main challenges/threats faced by the site (e.g., environmental, financial, social) and how have such challenges been addressed?	Natural degradation (the site is fading). The lack of maintenance is due to management issues. Lack of sustainability, so that the fee paid to view the site sustains the

	maintenance of the site – this does not happen.
In your opinion, is there any [other than financial] benefit for the community in looking after this rock art site? What are these?	Any visitor going to the site would pay a conservator fee and that contributes to the community levy. Although the researcher does not recall any community project that was paid for using the levy. The Duma clan wants to visit the site for spiritual purposes but by the site being public, they do not have that right.
Thank you for your time and contribution, is there any aspect you would like to add?	As archaeologists we should not think we are also tourism expects. As rock art specialists we can go to Game Pass shelter and speak about the site from morning to noon, just saying how important a site is. But that does not easily translate to increased visitor numbers. Communities have no rights because of the colonial legislature especially in South Africa.

Table C2: Questions for **other stakeholders** (e.g., researchers, NGOs, etc.) (Researcher, Chinhamapere rock art site, Mozambique).

Questions	**Interviewee: Researcher- Chinhamapere rock art site. Virtual Interview, 2021**
What is your interest in the rock art site? How long have you been involved with the site?	First went to the site with Norwegian researcher who was excavating at the site. 2002-2005 went to the June/July field trips at the site. One of the years there was a joint venture between Wits University and the University of Maputo looking at the issues

	of conservation at the site. After being fascinated by the tradition custodian system at the site, I decided to look at access to the sites and the system regionally and beyond as part of academic career. In 2010 looked at the site in relation to other sites in southern Africa.
Have you been involved in the conservation and management of the site? How (describe your role/responsibility)?	Working with supervisor in 2008 to try get the legal authorities to recognise the traditional systems. This was well received, and policies were changed.
Who are the people/institutions involved in the management/conservation of the site and what are their roles?	Ministry of Culture and Tourism who have a Department of Monuments and Antiquities who oversee all conservation of heritage sites. Provincial directorate of Culture and Tourism. District officer that looks at Culture, youth and technology controls all legal aspects of the site in connection with Traditional Chief. The Traditional Custodian does not have administrative role over the area.
Describe the decision-making process regarding the management of the site (Who is consulted? When? Who makes the decision?)	The state officials decide what happens to the site and inform the Traditional Chiefs on what to do. Only things that the District Officer cannot manage are taken higher to the legal authorities. Otherwise the Officer delegates to the Chiefs on how to manage the site. The Traditional Chiefs give a quarterly briefing on the site.
What role is assigned to local community members within the management framework for the site?	The daily running of the site is held by the Traditional leaders and limited involvement by the community. They would assist in the maintenance of the site and clearing the

	paths to the site. The community partakes in the Rainmaking ritual held at the site.
Who are the main social groups visiting the site (e.g., local communities, foreigners) now and before the covid-19 pandemic?	No detailed logging of visitors, so visitor statistics are difficult to attain. But school children and affluent visitors.
Does the site generate any income, for instance, from tourism related activities?	No income from the site.
What are the main challenges/threats faced by the site (e.g., environmental, financial, social) and how have such challenges been addressed?	Natural erosion along the paths to the site that require constant maintenance. Reverence for the site may be deteriorating. Not much revenue from the site.
In your opinion, is there any [other than financial] benefit for the community in looking after this rock art site? What are these?	The site is revered for its spiritual significance because rainmaking ritual is done at the site.
Thank you for your time and contribution, is there any aspect you would like to add?	The spiritual and social aspects of the rock art site and the community are what keeps the site in a good conservation state. The people care about the site.