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Race, Gender, and Distinction in the Transformation of South Africa's Architecture Profession

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Race, Gender, and Distinction in the Transformation of South Africa's Architecture Profession

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University of the Witwatersrand
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PRELIMINARIES

Candidate Declaration

Except where otherwise acknowledged, I declare that this is my own work, submitted pursuant to the fulfilment of the Doctor of Philosophy, Architecture degree from the University of the Witwatersrand, Johannesburg. This has not been submitted elsewhere for any degree or examination to any other university.

Peta de Jager
16 May 2025

ABSTRACT

This thesis, titled "Race, Gender, and Distinction in the Transformation of South Africa's Architecture Profession", critically examines the architectural profession in South Africa from 2000 to 2019, a period marked by significant socio-political change following the end of apartheid. The study corroborates the regulator's contention that the formal registration of professionals has not kept up with the increasing number of graduates. Moreover, this attrition disproportionately affected women and black^ individuals. This retention-transformation nexus poses a challenge that is (it is argued) untenable in the prevailing context of resource constraints.

Grounded in Pierre Bourdieu's theoretical framework, the research considered both race and gender within the profession, employing a mixed-methods approach that combined quantitative data analysis with qualitative insights.

The study articulates four key objectives: (i) to delineate the professional pipeline and quantify losses; (ii) to describe the field's structural dynamics; (iii) to explore the development of habitus through personal narratives; and (iv) to synthesise findings to propose initiatives for enhancing retention and transformation. Bourdieu's concepts of field, habitus, and capital were used to formulate a model for distinction to frame the study. The architecture profession was examined as a field, with a complex system of relations among various actors, including individuals, regulatory bodies, educational institutions, and professional associations.

The findings indicate that losses accumulated at every inflection point in the professional pipeline, affecting cohorts differently, at different points. Attrition was a significant feature of the profession, resulting in a marked and persistent underrepresentation of women and black^ professionals, particularly in the more prestigious professional categories. The roles of various instruments intended to drive change were reviewed. Data on the professional journeys of architecture professionals were collected using an electronic survey and subsequently recorded and visualised, noting the difference and congruence of the affective dimensions of professional journeys. An analysis was undertaken visualising some typical economic, social, cultural, and symbolic capital exchanges as actors competed and cooperated to gain distinction in the field.

The thesis proceeds to tentatively propose recommendations for stakeholders aimed at fostering a more inclusive and responsive architecture profession that reflects the diverse interests of contemporary South African society. The thesis concludes by questioning whether education in architecture is beneficial to individuals and society, even outside the prescripts of registered practice.

Attrition and retention in workplaces and in professions have been widely studied, including from perspectives of gender and race, leading scholars to call it a 'wicked' problem. This thesis builds on 25 years of prior research conducted on attrition and transformation of the architecture professions in Canada, the United States of America (USA), the United Kingdom (UK), Aotearoa New Zealand, and Australia, in this case in a setting where the professional minority is the demographic majority.

Keywords: architecture, attrition, Bourdieu, profession, retention, transformation

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NOMENCLATURE (& JARGON)

APs	Architecture professionals, referring collectively to aspiring, practising, and past practitioners, in the field of architecture
Black^	Denotes the collective of black African, Indian, Chinese, Asian, and 'coloured' individuals[1]
Born-frees	Colloquial term for individuals born in South Africa after the first democratic elections of April 1994
♀	Female[2]
♂	Male[3]
◇	Gender diverse[4]
x	Unspecified or unknown demographic characteristic
2D	Two dimensional
3D	Three dimensional
Wits	University of the Witwatersrand

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[1] For discussion on this terminology refer to Appendix A – glossary of terms.

[2] For the purposes of this study, 'female' includes cisgender women, and the term 'women' is sometimes used interchangeably with 'female'. For additional discussion on this refer to Appendix A – glossary of terms.

[3] For the purposes of this study, 'male' includes cisgender men, and the term 'men' is sometimes used interchangeably with 'male'. For additional discussion on this refer to Appendix A – glossary of terms.

[4] For the purposes of this study, 'gender diverse' includes individuals who identify as neither cisgender women, nor cisgender men. For additional discussion on this refer to Appendix A – glossary of terms.

ACRONYMS AND INITIALISATIONS

AAMA	Anti-Apartheid Movement Archives
ACE	Architects' Council of Europe
AI	Artificial intelligence
AIA	American Institute of Architects
ALS	Architectural Learning Sites
APs	Architecture professionals
ASSAf	Academy of Science of South Africa
BAS	Bachelor of Architectural Studies
B-BBEE	Broad-Based Black Economic Empowerment
BEA	Building Equality in Architecture
BEP	Built Environment Professionals
BERA	The British Educational Research Association
BIM	Building Information Modelling
CABE	Commission for Architecture and the Built Environment (British)
CAD[a]	Candidate architectural draughtsperson
CAD[b]	Computer-aided design
CALS	Centre for Applied Legal Studies
CANT	Candidate architect
CAT	Candidate architectural technologist
CSAT	Candidate senior architectural technologist
CBE	Council for the Built Environment
CESM	Classification of Educational Subject Matter
CIDB	Construction Industry Development Board
CPD	Continuing Professional Development
CSCC	Construction Sector Charter Council
CSIR	Council for Scientific and Industrial Research
DHET	Department of Higher Education and Training
DPWI	Department of Public Works and Infrastructure
ECSA	Engineering Council of South Africa
EUA	European University Association
FAME	Female Architects and Minority Ethnic
GDP	Gross Domestic Product
HEI	Higher Education Institution
HEMIS	Higher Education Management Information System
HR	Human Resources
HRM	Human Resource Management
IdoW	Identification of Work
ISAA	Institute of South African Architects
LGBQTA+	Lesbian, gay, bisexual, queer, transgender, and related communities
LLB	Legum Baccalaureus
LSD	Limited special dispensation
MTRs	Monthly Training Records
MWA	Muslim Women in Architecture
NCARB	(USA) National Council of Architectural Registration Boards
NDPWI	National Department of Public Works and Infrastructure
NHBRC	National Home Builders Registration Council
NOMA	National Organisation for Minority Architects
NQF	National Qualifications Framework
NSFAS	National Student Financial Aid Scheme

OSD	Occupation specific dispensation
PAD	Professional architectural draughtsperson
PAT	Professional architectural technologist
PDF	Portable Document Format
PSAT	Professional senior architectural technologist
POPIA	Protection of Personal Information Act 4 of 2013
PPEs	Professional Practice Exams
Pr. Arch	Professional architect
RDP	Reconstruction and Development Plan
RIBA	Royal Institute of British Architects
RPs	Registered Persons
RPL	Recognition of Prior Learning
SACA	South African Council for Architects
SACAP	South African Council for the Architectural Profession
SACLAP	South African Council for the Landscaping Architectural Profession
SACPVP	South African Council for the Property Valuers Profession
SACPCMP	South African Council for the Project and Construction Management Professions
SACQSP	South African Council for the Quantity Surveying Profession
SADC	Southern African Development Community
SAIA	South African Institute of Architects
SALDRU	Southern Africa Labour and Development Research Unit
SAPE	South African Post-Secondary Education
SciELO	Scientific Electronic Library Online
SMMEs	Small, micro, and medium enterprises
StatsSA	Statistics South Africa
TAWAH	The African Women Architects for Humanity
TEFSA	Tertiary Education Fund of South Africa
UIA	International Union of Architects
UK	United Kingdom
UoT	Universities of Technology
URL	Uniform Resource Locator (web address)
USA	United States of America
VAs	Voluntary associations
VBA	Visual Basic for Applications



Figure 1: Collaboration with the trans activists featured, in the series 'Proudly African and Transgender' (Le Roux, 2017)

The identities of South Africa's first black male and black^[5] female architects remain obscure.[6]

Although not formally trained,[7] Sophia Gray is often held to be South Africa's first female architect, adapting, and building imported church and school plans during the mid-1800s (Kotze, 2001). Of the 311 listed architects on the 1927 Register of Members of the Institute of South African Architects, two women - Nelly Edwards and Gwynneth Gertrude Goodricke – were featured (Artefacts, n.d.).

Aziz Tayob was the first black^ architect to graduate in 1969. He set up a practice, which endures today, in Pretoria (The Archive of Design and Architecture, 2023).

The individuals featured in this vignette were pioneers. Whilst their notable careers began a considerable time ago, black^ architects, especially black^ female architects, have always been - and remain - rare. This study aims to investigate this absence.

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[5] For this thesis, the term 'black^' is a collective term applied to African, Chinese, Asian, coloured and Indian people (other than white) who are citizens of South Africa by birth, descent, or naturalisation (similar to the B-BBEE Act definition). See Appendix A – glossary of terms.

[6] SACAP records did not record race initially, entailing that the first registered black^ woman is not immediately discoverable from the register. Other search methods for contenders were inconclusive.

[7] Noting that semi-formal training became available in South Africa only late in the 1800s as draughting or art, and the notion of 'professional architect' may only have been emerging at the end of the same century (Stevens, 1998:23-27).

FOREWORD

This thesis is presented in three parts. Part 1 positions South Africa's architecture profession as a field, in the first two decades of the 21st century, apparently and paradoxically stagnant, in a society expectant of transformation. Part 2 confirms the existence of a retention-transformation nexus. It analyses dynamics in and around the profession and investigates the personal journeys of those placed and misplaced in the profession. It examines some of the capital exchanges between key actors in the field. Part 3 gathers the study insights and speculates on their implications for the profession. In doing so, it aims to locate pathways for a more inclusive and responsive architecture profession that reflects the diverse interests of contemporary South African society.

PART 1

Chapter one provides a high-level overview and establishes the research context. It introduces a contention - needing confirmation - that attrition was a notable feature of the profession between 2000 and 2019. Ostensibly disproportionately affecting women and black^ architecture professionals, the issue is framed as a retention-transformation nexus. The costs associated with producing graduates and the growing importance of transformation goals to the state, professional bodies, and practitioners are demonstrated and presented as a rationale for investigating the nexus. Based on this discussion, a problem statement, the research aims and objectives are defined. Bourdieu's sociology is identified as the theoretical underpinning for this study, and a model for distinction is formulated as the analytical framework.

Chapter two details the methodological approach employed in this study. The research design uses a pragmatic mixed-method approach, with an abductive progression of analysis. Available data and materials which could be applied to the study are recorded. Four key components for data collection and analysis are identified, each aligned with the research objectives identified in chapter one. The scope, limitations, and ethos of the study are laid out.

Chapter three seeks to establish epistemological distance from the problem by orientating the reader in the field and surveying current literature. It begins by introducing the key actors in the field, including government regulatory bodies, architectural learning sites, registered persons and firms, and voluntary associations, each with distinct roles and mandates. It then explores how aesthetic sensibilities and doxa within the field of architecture are historically and socially constituted, influenced by the prevailing class conditions, as preparation to frame transformations in society and the profession that followed 1994. This chapter reviews the existing literature on student retention, attrition, and transformation within architectural education, the workplace, and the profession. It emphasises the persistence of gender and racial disparities while also noting the limitations and successes of the current scholarship.

PART 2

Chapter four presents a structural view of the field. It focuses on the second study objective, analysing the structures and structuring dynamics of the profession. Building on the research context, literature review, and methodology, a quantitative view of the professional development pipeline is developed. Using Bourdieu's sociological concepts, the profession, its configuration, and its instruments (such as regulations and methods) are described in order to construct the field as an objective system of relations between social positions. The chapter explores some of the strategies to define, foreclose, and control the field, and to establish prospects for the accumulation and exchange of cultural, symbolic, social, and economic capital.

Chapter five focuses on the study's third objective, which is to consider a collection of social trajectories of retained and 'lost' APs through the pipeline, with a focus on the perceptions and affective dimensions of being placed and misplaced within a profession. Utilising electronic survey methods, primary data are gathered, visualised, and analysed, considering race and gender.

Chapter six aims to critically examine the dynamics of capital flows and exchanges within the architectural field from ~2000 to ~2019. Building on the preceding chapters' arguments and data, the chapter elucidates how various actors navigate competition and cooperation to access and exchange economic, social, cultural, and symbolic capital. Mapping these flows onto the theoretical framework established in previous chapters, it explores the nuanced interplay of trading opportunities, considering trajectories and effect sizes and emphasising the impact of social class, race, and gender on the accumulation and valuation of capital within the profession.

PART 3

Chapter seven addresses the fourth study objective, which, based on preceding findings, is to identify and propose initiatives with potential for enhancing retention and minimising attrition. Recognising doxa and illusio as contributors to the elusiveness of 'solutions', the profession's transitional state, and broader societal context, tentative recommendations are identified. These are organised according to four varietals which respectively identify areas beyond the field's sphere of influence or outside the study's purview,[8] to immediately actionable recommendations,[9] and to items potentially in the ambit of the profession, albeit displaying some wicked characteristics,[10] that point to potential areas for further research.[11]

Chapter eight reflects on the thesis process, summarising intentions, and contextualising retention and transformation within the framework of wasted investment and questioning the negative framing of losses associated with the loss of talent from formal or exclusive participation. The chapter briefly revisits the original study objectives, reflecting on their attainment. A critical examination of the contributions made by the doctoral study and a final reflection on the research process itself, are provided.

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[8] *See 7.3.1 Varietal 1: Out of scope or out of reach on page 249.*

[9] *See 7.3.2 Varietal 2: Straightforward and uncontroversial on page 251.*

[10] *See 7.3.3 Varietal 3: Complex (or even wicked) on page 252.*

[11] *See 7.3.4 Varietal 4: Areas for further research on page 255253.*

This study seeks to investigate, confirm and characterise the extent, nature, and impact of attrition, transformation and retention in South Africa's architecture profession from ~2000 to ~2019

PART ONE
positions South Africa's architecture profession as a field, apparently and paradoxically stagnant, in a society expectant of transformation, in the first two decades of the 21st century.

PART TWO
confirms the existence of a retention-transformation nexus. It analyses dynamics in (and around) the profession and investigates personal journeys of those placed and misplaced in the profession. It examines some of the capital exchanges, as institutions, individuals and practices negotiate their places in the field.

PART THREE
gathers the study insights and speculates on their implications for the profession. In doing so, it aims to propose pathways for a more inclusive and responsive architecture profession that reflects the diverse interests of contemporary South African society.

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- Adopt a structuralist constructivist lens
- Quantify losses

OBJECTIVE TWO
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- Identify mechanisms for progression
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- Identify areas for further research

PART 1

Part 1 positions South Africa's architecture profession as a field, apparently and paradoxically stagnant, in a society expectant of transformation, in the first two decades of the 21st century.

> *How does a new country draw on and benefit from those power-resources arrangements inherited from former white institutions even as the terms of those relations are deeply transformed? Destroy the inheritance as given, and institutions collapse. Preserve the inheritance as received, and institutions ossify.*
>
> (Jansen, 2023)

1 INTRODUCTION

This introductory chapter provides a high-level overview and establishes the research context.

1.1 Background and Rationale

South Africa's Architectural Profession Act 44 (Republic of South Africa, 2000) - henceforth 'Act 44' - restricts the use of various titles associated with the architecture profession to those formally registered with the regulatory authority, the South African Council for the Architectural Profession (SACAP).

A cursory analysis of the available data lent credence to SACAP's contention that, since the promulgation of Act 44, entry onto the professional register did not keep up with the number of graduates produced. According to SACAP officials' testimony,[12] professionals abandoned registration in unprecedented numbers, and losses manifested unequally according to race and gender. Abundant evidence, presented below,[13] indicates that transformation goals have long been prioritised by the government and acknowledged, in varying degrees, by other key actors in the profession. The cost of graduate production is considerable,[14] leading me to argue that such attrition, if confirmed, can be considered untenable in South Africa, with its resource and skills constraints. The dynamics of high attrition and poor retention seemingly interact with race and gender attributes to undermine national goals of demographic representation,[15] thwarting meaningful transformation of the profession. Given the hypothesis that attrition, retention and transformation are inextricably bound up with each other, I position these issues as a nexus. To contextualise this, I now introduce the architecture profession in contemporary South Africa, seemingly stagnant in a country characterised by exponential growth, unprecedented transformation, and proliferating access to tertiary academic opportunities.

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[12] This concern was raised initially at a meeting between Peta de Jager (CSIR), Dr Coralie van Reenen (CSIR), SACAP Registrar, Advocate Toto Fiduli and SACAP President, Charles Nduku in Pretoria on 12 December 2019. CBE reached a similar conclusion, asserting that a lack of demographic transformation was concerning, and lamenting that racial demographic representation would take 50 years and gender representation 100 years to accomplish appealing for 'urgent and radical intervention' (CBE, 2018).

[13] See 1.3.2 Intensifying focus on transformation goals on page 24.

[14] As set out in 1.3.1 Cost of production of professionals on page 21.

[15] Despite the social contract enshrined by the Constitution (Republic of South Africa, 1996) twenty-five years into its democracy, there was persistent inequality and a growing frustration on the pace of change to meaningful demographic representation in all workplaces: Representation in positions of influence and leadership was especially slow (Department of Labour, 2018). Against this backdrop, several regulatory instruments were introduced which aimed to drive the desired structural transformation, achieve demographic representation and economic redress. See Salience of a Study.

1.2 Research Context

1.2.1 Architecture professionals in society

Architecture professionals position themselves in society as those figures mandated to plan, and design buildings and co-opt others (such as funders, investors and the construction industry) to manifest such visions into built form for the benefit and detriment of people and the environment. The successful translation of ideas into form is contingent on a set of conducive material conditions, such as the ability to mobilise considerable resources, and a conviction in -at least a part of - society that these ventures are needed, desired or worthwhile.

Buildings are created by and for people. Population increases would seem a potent driver of economic growth and the need for infrastructure, but the built environment is resilient and versatile. It can act as a sponge, soaking up occupiers through densification. Within limits, this can continue, averting a need to physically expand. Legacy structures can be utilised or inhabited for an extended life, postponing a need to replenish existing building stock. Even more fickle than need-driven demand, is the impetus to build based on discretion. These elastic qualities mean that there is no easy supply/demand heuristic to suggest metrics for how much built environment is required, how much 'ought' to be built, refurbished or renovated and following from this, how many architecture professionals are needed or desirable.[16]

1.2.2 An exponentially transforming graduate pipeline

South Africa's population grew from 46.8 million in 2000 to 58.8 million in 2020, exerting significant pressure on infrastructure. Notwithstanding the considerable durability and absorption capacities of the built environment, population expansion could logically have driven robust investment in infrastructure, affording ample opportunities to service need and stimulate desirability. With its youthful national population demographic and a burgeoning cohort of demographically representative matriculants entering university,[17,18]one might, at the turn of the century, have foreseen enormous potential for a flourishing of architects and architecture, with good prospects for gainful absorption into a transformed profession as productive contributors to the built environment, over the ensuing two decades.

1.2.3 A stagnant profession?

Statistics of its registered persons (RPs) supplied by SACAP provided prima facie evidence that the profession did not grow steadily or significantly and that it did not transform satisfactorily from its historical apartheid white fraternal composition to one aligned with the nation's population demographics. This observed stagnancy,[19] prompted further

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[16] *In her comparative study on architects to inhabitants in 36 countries Quirk (2014) showed that Italy had a ratio of 41 400 inhabitants per architect, whereas China had 4 000 000 providing crude insight into this variability. South Africa had about 5 200 inhabitants per RPs (including candidates) and about 14 452 inhabitants per registered professional architect in 2014. (The distinction between registered persons and registered professional architects will be clarified shortly).*

[17] *The proportion of individuals with secondary education increased more than threefold, rising from 9.4% in 1996 to 34.7% in 2022 (StatsSA, 2024).*

[18] *Discussed in 4.1 Quantitative View of the Pipeline on page 96.*

[19] *Extensively examined in 4.1 Quantitative View of the Pipeline on page 96.*

inquiry on whether and how attrition differentially affected historically disadvantaged individuals, contributing to a retention-transformation nexus.

Apart from the formally acknowledged and credentialled - that is RPs - in the architectural field, it is plausible that graduates could have found alternate but productive roles in society, including unrecognised roles in the production of the built environment. Given these factors, this study considers both the RPs and aspiring individuals who took observable, positive steps to actualise an aspiration to pursue or 'do' architecture, for example, by embarking on formal studies or subjecting themselves to an apprenticeship, whether they engaged with the profession's regulatory apparatus or not. To practically capture such a cohort, I introduce the term 'APs', henceforth used to denote aspiring, practising, and past practitioners, collectively termed architecture professionals (APs).[20]

1.3 Salience of a Study on the Nexus

1.3.1 Cost of production of professionals

Following South Africa's democratic election in 1994, resources were limited, and their allocation sensitive. The pervasive wisdom in tertiary academia at that time was that attrition was 'wasteful' and throughput was 'success' (Tinto, 1975, 2012:1; Department of Education, 1997:14-16, Mabokela, 1997:431). Dropout was a cause for shame for lost students and institutions alike (Rose-Adams, 2012).[21]

Professional development and the implied commitment to continuous skills acquisition collectively constituted considerable personal, societal, and economic investment. The cost for architecture-related studies specifically is not known, and variable, but considerable.[22]

Considering the minimum duration of a three-year undergraduate or five-year postgraduate degree, shown in *Table 1*, achieving a relevant qualification and the additional requisite work-related exposure required to achieve professional status, (see *Table 2),* represents a substantial financial investment.[23] Such costs are particularly salient as, in addition to direct economic cost, significant costs accrue as investment in

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[20] The term APs is therefore broader than architectural professionals, incorporating individuals recognised to be 'legitimate' within the field (registered persons - RPs), as well as those who identify as, or e aspire to be architectural professionals, so long as they have demonstrated some positive action towards participating in the field, for example registering for an aligned course or undertaking relevant work in a practice setting. See Appendix A – glossary of terms.

[21] There is a prevalent contemporary paradigm in society that tertiary academic education serves the function of efficient graduate producer (Department of Education, 1997; Marire, 2017), which flows into an expectation that degrees will reliably lead to absorption into the workplace, conferring professional standing and status, personal success, and yielding palpable benefits to society.

[22] After 2010, the average annual university fees rose above the annual inflation rate (Serfontein & Smit, 2023).

[23] Borne by parents, students, the taxpayer and through NSFAS via local and international donations (Southern Africa Labour and Development Research Unit (SALDRU), 2016).

effort, time, and opportunity cost. In 2019, average university fees were R 64,200[24] (BusinessTech, 2019), augmented by state subsidies ranging between R 21,000 and R 647,000 per student (De Wet, 2019). Besides fees, students required additional financial support for learning materials, board, lodging, and subsistence.

Table 1: Estimated minimum time to achieve professional status after leaving school

architect	Seven years
senior architectural technologist	Six years
architectural technologist	Five years
architectural draughtsperson	Four years

The government invested substantially in establishing the National Student Financial Aid Scheme (NSFAS) income-contingent loan and bursary scheme (De Villiers, 2023), which aimed to provide much-needed financial support for academically capable, historically disadvantaged students of all races, to gain access to tertiary academic programmes. The scheme, introduced through the NSFAS Act 56 in 1999 (Republic of South Africa, 1999[b])[25] disbursed significant funds, rising from R 733 million in 2002 to R 6.97 billion in 2014, expanding the number of students receiving support from 86,147 to 186,150 (NSFAS, 2019, 2021). The scheme thus grew to support approximately one-quarter of all undergraduate university enrolments (SALDRU, 2016). From 2018, all new first-year students with an annual family income below R 350,000 were funded for the full cost of study at universities and TVET colleges, and the loans were converted to bursaries (SA Government News Agency, 21 February 2018). Such a major and targeted investment, sustained for over twenty years, should have contributed significantly to the transformation of South Africa's graduate pool, feeding professional pipelines. If this were not the case, an argument can be made that attrition is wasteful.

[24] Exchange rates fluctuate, but to get a sense, a heuristic to convert Rands to US$ in 2019, is to divide the indicated South African Rand value by a factor of 14.5. Thereby, R 64,200 ≈ US$ 4 430.

[25] NSFAS officially superseded the Tertiary Education Fund of South Africa (TEFSA) which was established in 1991.

Table 2: Registration requirements (source: SACAP, 2019c)

NB: All qualifications must be accredited by SACAP

Qualification	NQF level	Candidate registration category	Requirements for progression to a professional registration category	Professional registration category
Accredited National Certificate	5	Candidate ARCHITECTURAL DRAUGHTSPERSON C.Arch.Draught (CAD)	• Minimum of 36 months internship from date of registration • Submission of Monthly Training Records during period of internship • PPE – Level 1 (1st Paper)	Professional ARCHITECTURAL DRAUGHTSPERSON P.Arch.Draught (PAD)
National Diploma (3 yrs full time) or **Non-accredited B.Tech**	6	Candidate ARCHITECTURAL TECHNOLOGIST C.Arch.T (CAT)	• Minimum of 24 months internship from date of registration • Submission of Monthly Training Records during period of internship • PPE – level 2 (1st and 2nd Papers)	Professional ARCHITECTURAL TECHNOLOGIST P.Arch.T (PAT)
BAS	7			
National Higher Diploma or **BAS (Hons)** or **Accredited B.Tech** or **Non-accredited M.Tech**	7	Candidate SENIOR ARCHITECTURAL TECHNOLOGIST C.S.Arch.T (CSAT)		Professional SENIOR ARCHITECTURAL TECHNOLOGIST P.S.Arch.T (PSAT)
B.Arch (5 or 6 years)	8	Candidate ARCHITECT C.Arch (CANT)		Professional ARCHITECT P.Arch
M.Arch **Accredited M.Tech**	9			

1.3.2 Intensifying focus on transformation goals

Transformation is a broad term, with a multitude of meanings (Musonda & Gumbo: 2019:76-78; Muraina & Toshe-Mlambo et al., 2024). In contemporary South Africa, 'transformation' - especially when espoused by the state and its organs - often refers mainly to a kind of moral imperative for change that reforms the demographic makeup of some societal groups to be more representative of the national population's demographics in terms of gender, race, disability and sometimes age and other dimensions (Van Schalkwyk & Van Lill et al., 2021). This conception, although narrow, is generally the intended meaning in this thesis.[26]

The numerous statutory instruments aimed at driving structural transformation, achieving demographic representation, and effecting economic redress provides evidence that transformation was a high priority for our nation emerging from its apartheid past. This was anticipated in the founding provisions and Section 217 of the Constitution (Republic of South Africa, 1996) and given effect through several legislative instruments, including, as amended, the Education White Paper 3: A Programme for Higher Education Transformation (Department of Education, 1997); the Higher Education Act 101 (Republic of South Africa, 1997[a]); the Skills Development Act 97 (Republic of South Africa, 1998b); the Employment Equity Act 55 (Republic of South Africa, 1998a); the Preferential Procurement Policy Framework Act 5 (Republic of South Africa, 2000b); the Broad-Based Black Economic Empowerment (B-BBEE) Act 53 (Republic of South Africa, 2003); and the Women Empowerment and Gender Equality Bill (Republic of South Africa, 2013).

Authorities incorporated transformation into their strategic statements,[27,28] established committees (Council for the Built Environment (CBE), 2018; SACAP, 2024), and hosted events to engage stakeholders and to communicate this as a priority (CBE, 2019a; SACAP, 26 August 2021; SACAP, 21 June 2024; SACAP, 18 July 2024). Transformation was also on the agenda of some of the profession's voluntary associations (VAs).[29] This can be discerned in policy (SAIA, 2016; Cape Institute for Architecture, 2019); through the appointment of transformation champions and through a variety of initiatives aimed at increasing awareness on topics related to transformation such as SAIA's Transformation Webinar Series (SAIA, 2021). A sample of local events is depicted in *Figure 2*.

Internationally, since about 2010, there has been a notable increase in globally accessible digital forums to advocate for and raise awareness on issues of justice,

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[26] *Refer to Appendix A – glossary of terms*.

[27] *In its "What we do" CBE, states "The CBE was established for the purpose of instilling good conduct within built environment professions,* ***mobilising transformation in the built environment professions****, protecting the interest of the public and advising the South African Government on Built Environment related issues" [my emphasis] (CBE. n.d.[a]).*

[28] *SACAP's stands for "a* ***transformed architectural leader*** *serving society in a sustainable built environment. Its mission is to achieve a SACAP that is* ***inclusive*** *and transparent…." [my emphasis] (SACAP, n.d.).*

[29] *For example, transformation was not visibly referenced on the South African Institute of Building Design (SAIBD) website, https://www.saibd.org.za/, reviewed 8 August 2024.*

diversity, equity and inclusion in workplaces.[30] These platforms hosted peer networks, represented and coordinated specific interests, and offered resources and support. Some were initiated by architecture's professional bodies. For example, the American Institute of Architects (AIA) (2016; 2020), Female Architects and Minority Ethnic (FAME) at the Royal Institute of British Architects (RIBA) (n.d.), incorporated transformation objectives into broader agendas. Sometimes these platforms were established with equity or justice as a founding purpose and objective in its own right, for example, the National Organisation for Minority Architects (NOMA) (n.d.), Parlour (2024), and The African Women Architects for Humanity (TAWAH) (n.d.).

Demographic representation in the workplace was also of widespread and growing popular concern, both locally and internationally, as evidenced by extensive media coverage calling out and explicating perspectives on prejudice, microaggression, racism and sexism (Campbell & Manning, 2014). APs have ventilated these matters using social media platforms, blog sites, and so forth. Examples include Archinect Discussion Forum (2018), Dezeen (2020), Broke Architect (31 December 2023), Parlour (2024), DAP Collective (n.d.), Archisoup (n.d.), and Architecture Foundation (2020).



Figure 2: Collage of convenient sample from the internet of activities and events

The proliferation of legislation and policy, resource mobilisation and the emergence of digital support communities illustrate that transformation is a general priority for the government, is on the agenda of some professional bodies, and is an intensifying topic of interest among APs.

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[30] *The observation that such platforms are not equally accessible to all, thereby contributing to (rather than alleviating) inequity, has itself launched a social justice field of inquiry and advocacy on the digital divide.*

1.3.3 Uncertainty and change

A quantitative study is indicated to confirm or refute the presented contention that a nexus exists and is substantive. But, unless it does not exist, such a study would not be satisfactory to capture the aspirations of the profession (CBE, 2019[a]:4) or to capture how this is understood and received as lived experience. It is argued that transformation - both within the built environment and across society at large - is much broader than the promotion of previously marginalised into positions of being socially and economically empowered. Transformation should also be linked to qualitative changes for the empowerment of APs and the development of new knowledge and practise that leads to cultural enhancements to discourse and products, in turn translating into valorisation of the built environment, according distinction to the profession's role in society.

Attrition, retention and transformation as nexus act at multiple levels through the underlying social structures and institutions and through collective and individual actions. Therefore, a structuralist constructivist perspective was identified as potentially valuable for gaining insight for this doctoral study into how historical legacies, institutions, social, cultural, and economic forces, which are significant in the context of South Africa's complex socio-political history and contemporary struggles, influence observed patterns in the field. From this formulation, Pierre Bourdieu's structuralist theory was identified as a suitable theoretical underpinning. This will be elaborated immediately after clarifying the research problem, aims and objectives. [31]

1.4 Research Approach

1.4.1 Problem statement

Thirty years into democracy, South Africa's registered architecture profession seemingly did not yet reflect the population demographics and was not growing despite a steadily growing population, a prioritisation of transformation, and significant and sustained investments in tertiary academic education.

1.4.2 Research aim

This study sought to confirm, investigate, and elucidate the dynamics of attrition and retention and their implications for the transformation of South Africa's architecture profession from 2000 when Act 44 was promulgated, to 2019, after which COVID-19 appeared.

1.4.3 Objectives

Using Bourdieu's theoretical framework, which considers structure and agency, this study sought to confirm and characterise the extent, nature, and impact of professional losses, particularly concerning race and gender. It positioned losses as a retention-transformation nexus, focusing on the period between 2000 and 2019. Four objectives were identified:

- The first objective was to confirm, describe and characterise retention, attrition, and transformation in the architecture professional development pipeline, mainly through quantitative desktop methods, and to position this as a retention-transformation nexus.

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[31] *As discussed in 1.5. Theoretical Underpinnings on page 27.*

- The second objective was to articulate a structuralist constructivist view of the profession's essential field dynamics and capital flows, focusing on the period between 2000 and 2019 through desktop analysis and interviews with selected key informants and active practitioners.

- The third objective was to consider a range and diversity of subjective experiences through a collection of social trajectories of retained and 'lost' actors through the pipeline, using an electronic survey, with a focus on the perceptions and affective dimensions of being placed and misplaced within a profession.

- The fourth objective, building on the preceding objectives, was to identify initiatives and instruments with the potential for enhancing transformation and minimising attrition and to speculate on their utility to the future profession, nuanced with reference to doxa and illusio, using key interviews and desktop methods.

The thesis will return to the four abovementioned objectives in the elaboration of methodology.[32] I will now introduce Bourdieu's sociological theories and explain their selection for this thesis.

1.5 Theoretical Underpinnings

1.5.1 Bourdieu's sociology

Bourdieu's work endeavoured to provide a framework that acknowledged structure and agency in shaping social life and conceived them to be mutually constitutive and in reciprocal interaction (Bourdieu, 1990, 1984). He challenged the dichotomies of objectivism versus subjectivism, structure versus agency, and determinism versus phenomenology (Grenfell & James, 2004:507-510). Utilising a series of concepts introduced below, Bourdieu proposed an analytical framework depicting actors as socially embedded, embodying dispositions moulded by their position within social fields, constrained, but with both opportunity and capability to improvise and freedom to act (Bourdieu, 1984).

Bourdieu emphasised the importance of both theory and research. He advocated for empirical research and data analysis to gain a better understanding of context (Bourdieu, 1990:25-29). His own life experiences illustrate this point. Coming from a humble, rural background, Bourdieu faced challenges when he attended the elite École Normale Supérieure in Paris to study philosophy. This contrast made him aware of how geography, biography, and history shape the preferences, behaviours, and tastes of individuals and societies (Jenkins, 2014:13). After his studies and a brief teaching stint, Bourdieu was conscripted to serve in the French army in Algeria (Steinmetz, 2022:326), staying on for four years afterwards to research and document Algerians' perspectives, as he felt these were not adequately comprehended by French intellectuals (Jenkins, 2014:13). He aimed to go beyond recording and describing ethnographic phenomena and theorising, to developing a nuanced and keen understanding of interactions of mechanisms at play, whilst developing a cognisance of the a priori paradigms brought into the research by the researcher (Steinmetz, 2022:326-327). Calhoun (2006) underscores the importance of

[32] *See 2 METHOD on page 37.*

Bourdieu's work in transcending the gap between practical knowledge and universal structures, and in addressing theoretical questions. Astute scholars identify the emergence of Bourdieu's neologisms and nascent concepts in this early work, which he was to refine over the remaining course of a prolific career (Steinmetz, 2022; Calhoun, 2006; Jenkins, 2014). In Algeria, Bourdieu shifted from a philosophical focus to an anthropological focus. Bourdieu's work undertook a further disciplinary turn when he returned to France and the elite intellectual circles of Paris and began work regarded as sociological. He researched and published widely in France, becoming the Director of Centre de Sociologie Européenne (Jenkins, 2014:14). Bourdieu's works were translated into English from 1962 and have since attracted the imagination of numerous anglophone scholars, with his conceptual apparatus applied to many fields, including architecture and the sociology of the architecture profession. Bourdieu's framework has gained traction in literature and, among others, has been applied to analyse education among architecture students by Chamberlin (2010) / Payne (2015); the profession (Sahin-Dikmen, 2013); the history of the Indian architecture profession (Melsens, 2020). It has been set to work to consider cultural production in architecture and the media (Parnell, 2011); to argue that signs and socio-aesthetic codes embodied in the built environment as 'symbolic capital' which reflect and reinforce power dynamics within society (Malone, 2020); to frame sociocultural dynamics and systemic inequalities in the profession (Fowler & Wilson, 2016; Sánchez De Madariaga, 2010; Roan & Stead, 2016); and to analyse the use of cultural capital to 'produce' creativity and distinction (Stevens, 1998).

Choosing Bourdieu

From the brief overview of Bourdieu's biography above, the reader is invited to conclude that Bourdieu's concepts were born from his firsthand experiences of being placed and misplaced in the institutions of his professions. His concepts emerged when he was immersed in a setting, part insider, part outsider, as he offered his analytical, and visual recordings and commentaries on French and Algerian societies in constant transition. Transition, such as would inevitably be catalysed by the demise of apartheid, brings a variety of cultural paradigms together, and Bourdieu's work exemplified an authentic effort to apprehend the meeting of previously separated cultural paradigms, considering actors' positions and social relations within societies, in a non-reductive way. It is this origin and application in societies in transition of Bourdieu's work that resonates with the studies' themes of this thesis in a society transitioning from apartheid to a democratic dispensation.

According to Jenkins, Bourdieu's journal, "*Actes de la recherche en sciences sociales"* was "an innovative academic publishing venture which mixed text, photographs and illustrations in a refreshing…style*"* (2014:14). Bourdieu's blurring of disciplinary lines, and eclectic use of methods and materials was a personal impetus for my selecting Bourdieu as a theoretician to 'think with'[33] for the preparation of this thesis. Although my training as an architect, graduating in 1995, and later ethicist, and my roles as practitioner, academic, researcher, leader and manager provided a good, situated vantage point on the architecture profession in South Africa during the period considered, my theoretical preparation for studying the profession was underdeveloped.[34] The versatile applications to which Bourdieu has been put to use, gave me reassurance.

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[33] *Per Lévi-Strauss (Garber, 2012).*

[34] *See Appendix E – an autoethnographic account of thesis topic selection: and the subjective salience of its themes to my life story.*

Individual journeys

In essence, every individual's sociological journey is unique and reflects their personal dispositions within a slowly evolving and contested societal framework (Steinmetz, 2022:341). People interact with their surroundings in diverse and tactical ways, engaging the particular opportunities and troubles they identify and face in those fields. Apparent peculiarities in response, per Bourdieu, are not random but are shaped through habitus, capital, doxa and illusio. Certain groups, or individuals, by virtue of belonging to those groups, are given, or are able to negotiate, preferential access to opportunities, resources, and experiences. This mechanism results in a tendency to produce somewhat predictable outcomes, although they are never the same. Each of the terms above will be defined now.

Field

For Bourdieu, 'fields' were relational social spaces where multiple actors competed or cooperated for various forms of capital (Bourdieu, 1990:66). Bourdieu intended a double entendre to convey both a metaphoric battleground (or sports field) and a force field through actors exerting forces, which acted upon their constituents. Field boundaries overlapped, were contested and continually redefined; actors could 'play' on multiple fields. For example, one could participate in both the academic and architectural fields. Bourdieu likened the field to a 'game', not to trivialise it, but to capture the essence of its dynamics (Jenkins, 2014:70). The 'realm of possibilities', as Bourdieu termed it, was heavily controlled and characterised by clear barriers, hindrances, and disparities that promoted common patterns within class groups.

Each field has its own rules, norms, and values defining what counts as legitimate and valuable in that field. For example, the architectural field has its own criteria for recognising its members' skills, knowledge, and credentials. Stevens (1998:75) proposed that the field of architecture comprised architects, critics, architectural academics, builders, all forms of clients, the part of the state concerned with construction, financial institutions, and architectural discourse and building regulations, among others. Drawing from this, for the purposes of this thesis, I considered the relevant actors to be APs and:

- Adversaries: competitors and their agents, such as engineers, developers, human settlements departments,
- Teammates: partners and collaborators, such as allied professionals, workplace/practice,
- Referees: local authorities, statutory bodies, such as the Construction Industry Development Board (CIDB), CBE, and SACAP,
- Coaches: ALS, VAs, other membership groups,
- Spectators and supporters: marketplace, public and private sector clients, media, and
- Rules of the game: discourse, regulation (National Building Regulations, South African National Standards (SANS) 10400).

I construed the game to include beliefs, practises, experiences, contingent geographies and institutions.

Habitus

According to Bourdieu, 'habitus' is the set of embodied dispositions that shape the attitudes, practises (habits), and perceptions of actors in relation to the cultural milieu and the field (Bourdieu, 1990:52-65). Habitus is acquired through socialisation and experience in different fields (Bourdieu, 1990:52-65). Habitus enables actors to adapt to

and perform in a field, largely reflexively, but also constrains their expectations and predisposes them to particular preferences, perceptions and choices (Bourdieu, 1990:52-65). Habitus is largely unconscious and taken for granted by actors. In general, habitus is significantly formed in childhood and early adulthood, after which it becomes less receptive to change (Bourdieu, 1990:52-65).

Capital

Bourdieu expanded upon Marxist class theory by recognising additional forms of capital beyond the economic, including cultural, social, and symbolic (Bourdieu, 1986). These forms of capital play a significant role in the struggles within a given field, influencing (and influenced by) social class, class faction, and class trajectory (Bourdieu, 1984).

Following Bourdieu, 'capital' is a form of resources that can be accumulated, disposed of, or exchanged to establish, more or less, status within a field (or fields). The field is the forum to negotiate what is valued and rates of exchange, as generally determined by the prevailing dominant class.

Bourdieu distinguishes between cultural (encompassing educational and symbolic capital), social, and economic capital.

'Economic capital', following Marx, Bourdieu regards as material wealth to subsist, plus surplus. Economic capital is the dominant capital.

'Cultural capital' is used to denote symbols, ideas, tastes, and preferences strategically deployed as resources in social endeavours. In the field of architecture, cultural capital is degrees and certifications, portfolios (both built buildings and design), and academic papers/manifestoes, for example. According to Bourdieu, mutual reinforcement of economic and cultural capital occurs through the conversion of initial social capital into educational credentials for successive generations, leading to access to more lucrative occupations. This intergenerational cycle (intergenerational wealth) is central to the perpetuation of class differences (Calhoun, 2002; Piraino, 2015).

'Social capital' refers to the aggregate of resources that accrue to individuals or groups through durable networks of relationships, mutual acquaintance, and mutual recognition among people who live and work in a particular society, enabling that society to function effectively. This form of capital enables individuals to exert influence and access resources within their social networks, often reflective of societal position and status (Bourdieu, 1986).

'Symbolic capital' is a type of capital that gains power through recognition or perception within particular social schemes. It is rendered visible via honour, prestige, or recognition, and represents a given culture's valuation of the individual or group, imposing categories of perception that tend to reproduce and reinforce the power relations structuring the social space (Lebaron, 2014). These could include awards, social media followers, citations and professional titles.

The field-evaluated composite value of all capitals is strongly predictive of actors' social status. For Bourdieu, not only is the accreted status of accumulation, that is, volume of capital, germane but also the history and trajectory of prospects.

Doxa

In Bourdieu's framework, 'doxa' refers to a set of internalised beliefs and orientations towards the world, in which various elements and their relationships - including people, objects, social circumstances, and customs - are perceived as self-evident and natural, and thus are often accepted without question (Bourdieu, 2001:2) and without being considered problematic (Bourdieu, 1990:26, 30, 36). Two related concepts are 'objective chances' and 'making a virtue of necessity.' Bourdieu suggests that individuals develop tastes and preferences by aligning their expectations and aspirations with a tacit estimation, shaped by their historical experiences, of the likelihood of their attainment, or 'objective chance's. These assessed chances are internalised, accepted and expressed as preferences, thereby making a virtue of necessity. The regularities encoded in a set of arbitrary conditions, such as the surrounding built environment, come to be seen as necessary and even natural.

> *If a very close correlation is regularly observed between the scientifically constructed objective probabilities (for example, the chances of access to a particular good) and agents' subjective aspirations ('motivations' and 'needs'), this is not because the agents consciously adjust their aspirations to the exact evaluation of their chances of success, like a gambler organizing his stakes on the basis of perfect information about his chances of winning. In reality, the dispositions durably inculcated by the possibilities and impossibilities, freedoms and necessities, opportunities and prohibitions inscribed in the objective conditions ... generate dispositions objectively compatible with these conditions and in a sense pre-adapted to their demands. Improbable practices are therefore excluded, as unthinkable, by a kind of immediate submission to order that inclines agents to make a virtue of necessity, that is, to refuse what is in any way denied and to will the inevitable*.
>
> (Bourdieu, 1990:52-53)

Ergo, internalised beliefs (doxa) predicate tastes, preferences and illusio.

Illusio

Following Bourdieu, 'illusio' refers to individuals' subjective investment and belief in a particular field of activity (Bourdieu, 1990:66-67). Illusio is the sense of commitment, engagement, and attachment individuals develop toward a specific social practice or field. This commitment is not merely rational or calculated but is deeply ingrained in one's habitus. Bourdieu argued that illusio is a crucial element in understanding social reproduction and the maintenance of social hierarchies. Individuals who participate in a particular field invest their time, energy, and resources into it because they believe in its inherent value. This investment is sometimes, but not necessarily, remunerated.[35] Illusio also perpetuates social distinctions. Subjective investment in a particular field contributes to the reproduction of social hierarchies, as those who possess the necessary cultural and social capital to participate in a given field are more likely to succeed and maintain their privileged positions.

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[35] *For example, voluntarily serving on committees or mentorship: Mentors and mentees alike may engage in mentorship relationships without economic capital exchange because they have a subjective belief in the importance and worth of architecture or the institution of mentorship. Mentors are generally unpaid in architecture, although there are rare anecdotal reports of mentees being charged for mentorship. It is frequently the case that mentees are their mentors' employees, occasionally unpaid or poorly paid*.

Symbolic violence

According to Bourdieu culture operates in two distinct ways: through its imposition and content (Jenkins, 2014:109). Culture is viewed as arbitrary, in that it cannot be logically deduced or justified based on notions of appropriateness or comparative value; rather, it is shaped by a historically contingent process.

According to Jenkins, 'symbolic violence' is~

> *[T]he imposition of systems of symbolism and meaning (i.e. culture) upon groups or classes in such a way that they are experienced as legitimate. This legitimacy obscures the power relations which permit that imposition to be successful. Insofar as it is accepted as legitimate, culture adds its own force to those power relations, contributing to their systematic reproduction. This is achieved through a process of misrecognition: 'the process whereby power relations are perceived not for what they objectively are but in a form which renders them legitimate in the eyes of the beholder'.*
>
> (Jenkins, 2014:109)

Hysteresis effect

In sociology, hysteresis refers to the disjunction between past and present conditions, where individuals or groups continue to act or react based on outdated structures, norms, or expectations associated with a field. For example, if a society undergoes rapid change, people might adhere to old practices or mindsets that no longer fit the new context. Bourdieu applies this concept to explain how social actors might cling to habits and dispositions formed in a previous social environment, even when those are no longer suitable.

Transformative change is possible

Transformative change is also possible, per Bourdieu. For example, according to Grenfell and James (2004:510-511), Bourdieu's framework posits the following mechanism for field transformation: collectivist social movements challenge a prevailing doxa, gain traction and successively supplant and displace previous orders in a somewhat generational fashion. Unions are an example. In the art and architecture fields, avant-garde movements have produced membership groups which have made unique contributions to the evolution of culture, theory and practice through discourse and artefact (Subotić, 2019; Butcher & Pearson, 2019). There are numerous international examples from history where 'other' membership groups have emerged from their cultural contexts to address local social and political issues, such as the Mexican muralist movement (Malott, 2019) and the global socialist movement (Stanek, 2020). Therefore, VAs, other professional membership groups and digitally organised pressure and consciousness-raising groups theoretically have transformative powers. By understanding the interplay between structural and agency factors contributing to attrition and transformation, tactics could be devised to promote transformation and foster inclusive practices in the production and reproduction of the profession.

Reflexivity

Bourdieu's approach is rooted in a reflexive realist perspective, which combines theory and method to understand the empirical complexity of the social world. Scholars consider Bourdieu's call to researchers to reflexivity an important contribution to his work (Jenkins, 2014; Kenway & McCleod, 2004). Kenway and McCleod (2004) distinguish three meanings of 'reflexivity' entailed by Bourdieu. First is a sense in which individuals can gain perspective and craft their biographies through modifications prompted by critical self-awareness and reflection. The second sense is in which researchers are aware of

their role and the effect of their undertakings, as a concession to the post-positivist methodological doxa to unsettle and reframe implied epistemological claims to objectivity. The third sense, extending beyond mere textual and autobiographical references or the unconscious predispositions of individual researchers, entails an exploration of the 'epistemological unconscious' and the 'social organisation' inherent within the discipline or field of sociology (Bourdieu & Wacquant, 1992:40).

Critique

Bourdieu wrote extensively, evolving his concepts (Lebaron, 2003). His style is cumbersome and nuanced, and his apparatus can be challenging to apply (Grenfell & James, 2004; Calhoun, 2002). Some scholars, notably Sayer (1999) and Lebaron (2003), consider that Bourdieu's theories have some important limitations. Notwithstanding his intentions to the contrary, critics consider that Bourdieu's work - particularly his empirical work - risks oversimplification or reductionism, for example, in pigeonholing actors into stereotypical – especially class – categories and underplaying individuals' agency (Sayer, 1999; Lebaron, 2003). Critics find Bourdieu dismissive of moral sentiments, which can play a substantive role in the reproduction of social order and are not reducible to interest or instrumental impetus to act (Sayer, 1999:412; Lebaron, 2003).

1.5.2 A model for distinction

Applying Bourdieu's concept of capital, I composed a model for distinction to apply to this study. The model presupposes that retention will be enhanced and attrition alleviated where the majority of APs subjectively experience levels of positive reinforcement to remain via unfolding success, that is trajectory, in accessing and then accumulating cultural, symbolic, social, and economic capital in the presence of conducive field conditions. This composite and parsimonious[36] model is shown in *Figure 3*. This model does not make any claim to being comprehensive. It is not suggested that all capital species must be satisfied for individuals to remain, succeed, or flourish in the field. It is rather posited as an ideal type, in the sense proposed by Max Weber, to be applied as a lens for interpreting empirical data later in this study. In this model, cultural

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[36] *For Bourdieu, various types of capital are significantly interterritorial, jointly accruing to the habitus and doxa of APs and infusing illusio in the field. For example, academic qualifications can serve as social, cultural and symbolic capital. Academic qualifications influence a person's social standing, that is, social capital in society. They provide access to professional networks and connections, for example, through patronage networks and professional regulatory and voluntary associations. They enhance reputation and status and facilitate engagement in influential communities. Holding a degree earns a person a certain social esteem that those with a matriculation certificate only do not generally enjoy. Academic qualifications serve as cultural capital, signifying elevated levels of education, knowledge, and skills, as they are widely presumed to correlate with familiarity with cultural norms and intellectual discourse. They also have symbolic value, representing educational attainment and intellectual capability. Thus, degrees are embodied (through knowledge APs accumulate over time), objectified (for example, as a design portfolio), and institutionalised (for example, through professional registration categories). Because each capital type may apply to multiple, interrelated aspects of the profession, a proliferation of analytical possibilities results. Therefore, to avoid the discursive effect considering what could be entailed in each aspect under all types of capital, the model places academic qualifications only in one category - here as social capital - conceding that whilst it also serves as cultural and symbolic capital, it is accounted for only once. Similarly, 'double accounting' has been avoided in other aspects of the analysis, leading me to call the model 'parsimonious'.*

capital is construed to mean an ability to engage in 'meaningful' work. 'Meaningful' work is a broad construct of architecture professionals' goals, positing that~

> *Architecture professionals position themselves in society as those who plan, and design buildings and coopt others (such as the construction industry and infrastructure funders/investors) to manifest these visions into built form...*

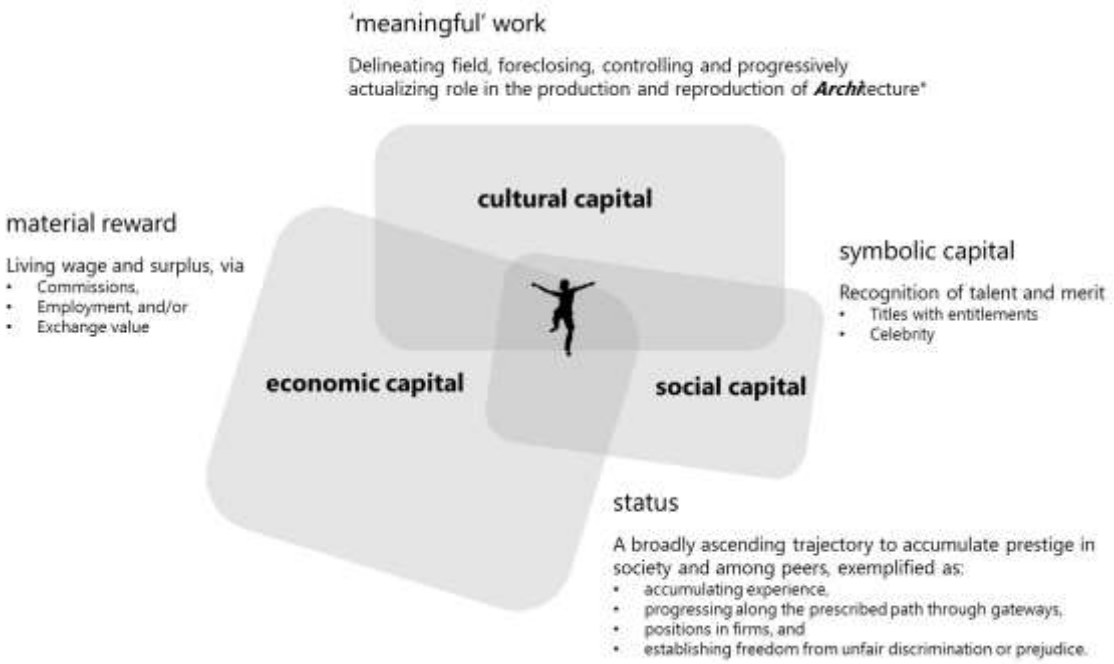


Figure 3: Composite model for distinction

This emic, high-level level and admittedly reductionist view of architecture professionals' self-conception in society is subjective and subject to contestation and evolution. I merely present this as a working definition and starting point. Building on the work of 1930s sociologists, Carr-Saunders and Wilson, William J. Goode, Robert K. Merton, and, later, Harold Wilensky, Larson's influential book "*The Rise of Professionalism: A Sociological Analysis*" tried to articulate the evolutionary transformations professions made to remain relevant in a market economy. Larson (1979:*x*) posited that professions contrive to be protected from the competition of 'outsiders' by convening special communities of discourse endowed with the authority of speaking *about* and *for* their field and, in so doing, constructing a monopoly its meaning for the lay public~

> *[P]rofessions are occupations with special power and prestige. Society grants [them] these rewards because [they] have special competence in esoteric bodies of knowledge linked to central needs and values of the social system, and because professions are devoted to the service of the public, above and beyond material incentives*
>
> (Larson, 1979:*x*)

Accepting Larson's proposition that professions have special privileges to define their own field and discourse, and derived from my preceding understanding of architecture professionals' own societal positioning, I define 'meaningful' work as activities and contributions in visualising built form and coopting resources in the production and reproduction of architecture, howsoever that may be defined by the legitimated

profession of the day. Though the pinnacle achievement of these goals can be argued to be the actualisation of mostly unmoderated visualisations into built form, as legitimated by the profession itself, it more broadly includes activities that support this overarching goal. This could include generating cultural capital as design ideas which are not (yet) built, but rendered and conveyed as sketches, layouts, visualisations, technical drawings, models, theories, treatises, etc.

More narrowly than conceived by Bourdieu, this model for distinction construes, as its first dimension, cultural capital, as only that which is central to attaining this 'ultimate' goal. A second dimension of the model is social capital. This is defined as status ensuing from prestige in society and among peers, accompanied by freedom from unfair discrimination and prejudice. Cultural capital is embodied as knowledge and skills acquired at ALS and in practice and objectified as qualifications and job titles. Social capital is leveraged by the quality, number, centrality, and role within relevant social networks.

Based on Bourdieu's writings, this model assumes that APs can exchange between various forms of capital, for example, acquiring skills and competencies as educational capital, and tools of the trade utilising economic capital. For Bourdieu, capital currency, though valuable, is often predicated on 'misrecognition' (1990:68). For example, talent and merit play a more minor role in the ability to acquire cultural, social, and economic capital than is generally presumed. The underlying cause for success is the habitus acquired in childhood, having privileges and exposure due to unequal access to resources. For this reason, the acquisition of all capital should be viewed in the context of individuals' backgrounds and histories (1990:117-8). For Bourdieu, symbolic capital, such as awards and positive media attention, is contingent (1990:112-128). In my analysis, titles, entitlements, and celebrity, discerned through awards and visibility in the media, is considered a proxy for symbolic capital.

For this thesis, the quest for capital is understood to be a journey over a lifetime, during which roles are progressively adapted and refined unless or until personal potential is reached, an optimal role is found, capacity is exceeded, or retirement is reached. According to this model, these capitals exert a centripetal force within the profession, encouraging APs to remain in the field as long as conditions, like economic fundamentals, are conducive. Being 'placed' in the domain implies a progressive ability to access and accumulate some personally satisfying measure of social, cultural and economic capital in the architectural field. Being 'misplaced' in the field implies encountering limited) success. [37]

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[37] *This can be disaggregated to abjective, subjective or objective success as follows: Subjective success is attained where cultural and social capital have been accessed without economic capital. A hypothetical ideal type of this may be the celebrated academic who contributes significantly to discourse and enjoys high status as a professor but manages only to generate subsistence from professional activities. In architecture, economic capital is gained by commissions directly, through employment, or from alternative sources (for example, stocks or investments), which may have been accessed by the exchange value inherent in the field. Objective success could be achieved when economic and social capital are accessible but cultural capital is elusive. The ideal type here could be an architect in a project management role in a public works setting who indirectly facilitates rather than produces/ reproduces architecture. Abjective success occurs in situations when social and economic capital is adequate, but there is*

The opening definition of this thesis positioned architecture professionals in society, stating that~

> *The ability of the profession to successfully translate idea into form is contingent on a set of conducive material conditions, such as the ability to mobilise considerable resources, and a conviction… in society that these ventures are needed, desired or worthwhile.*

Building on this definition, a retention-transformation model is proposed. First, the actualisation of buildings requires considerable resources, such as potentially released only under conditions of vibrant economies or when aligned to those in powerful positions over resources. Second, it is required that there is a conviction that building activities are needed, desired or worthwhile -that is, markets for the products. Stated differently, conducive environments require material resources, clients and, in free-market contexts,[38] receptive markets. By considering capital and field in relation to habitus, which is shaped by historical backgrounds and social trajectories, this study aims to illuminate the demographic dynamics that drive observed patterns undermining transformation. The model is intended as a lens to consider objective institutional structures and their relational vicissitudes from the past, particularly between 2000 and 2019. It also illuminates the subjective realm through individuals' interactions with these structures, considering habitus shaped by historical contingencies. Moreover, it provides a framework for identifying potential interventions and 'thinking through' their effects, if implemented. Thus, this model aims to frame the discussion on the retention-transformation nexus for the subsequent sections of this thesis.

This introductory chapter provided a high-level overview and established the research context. It introduced a contention that attrition was a notable feature of the profession between 2000 and 2019. As the issue ostensibly disproportionately affected women and black^ architecture professionals, it was framed as a retention-transformation nexus. The costs associated with producing graduates and the growing importance of transformation goals to the state, professional bodies, and practitioners were demonstrated and presented as a rationale for investigating the nexus. A problem statement was articulated, and research aims with four specific objectives were defined. Bourdieu's sociology was identified as the theoretical underpinning for the doctoral study. Cultural capital was expressed as a quest to engage in meaningful work - for APs, assumed to be actualising architecture. Economic capital was identified with material rewards to sustain a living wage and surplus, through commissions or employment. Social capital was designated as prestige and freedom from discrimination. These capital forms were represented together and proposed as a model for distinction to frame subsequent sections of this thesis. Chapter two will consider how to apply these theoretical concepts to the research problem and objectives articulated above.[39]

---

a deficiency of cultural capital. Such a situation could pertain to circumstances of B-BBEE 'fronting' (tokenism), in which works are attributed to an author who is perceived to lack cultural capital. A hypothetical example is the cleaner who is (unbeknown to them) placed as the firm's principal to win tenders.

[38] *Exceptions abound, as architecture can be effectively deployed to display power.*

[39] *This is the subject of attention in 4.1 Quantitative View of the Pipeline on page 96.*

2 METHOD

Chapter two details the methodological approach employed in this study.

2.1 Research Design

2.1.1 Pragmatic mixed methods

A cursory view of the publicly available data, such as SACAP's annual reports (available from 2009/10)[40] indicated that professional registration was somewhat unstable, fluctuating from year to year, with an underrepresentation of women and black^ RPs. The first task, therefore, was to analyse whether these samples were outliers, anomalies, or a consequence of stochastic performance. Second, it was needed to characterise trajectories of change, disaggregated to gender and race to identify any transformation and to develop a more nuanced level of insight. Where in the professional categories were changes taking place? If change were observed, were these in an undesired direction? Were there sufficient candidates, graduates, and enrolments at ALS?

Quantitative research offers a robust means of reaching a statistically representative conclusion, providing insights into the prevalence and magnitude of these issues within the study group. Therefore, to achieve the first of the study's objectives,[41] quantitative methods were indicated to confirm and quantify the retention-transformation nexus.

Purely quantitative methods would be unsatisfactory in that the approach would provide little intelligence into any underlying dynamics that may cause or contribute to attrition and demographic distortions and would also provide no insight into how such dynamics would be experienced by the actors involved. Therefore, qualitative research was also indicated.

As Creswell and Poth (2015) outlined, qualitative research is suitable for exploring issues, amplifying 'silenced voices', understanding complexity, and contextualising experiences. Creswell (2010:40) recommended qualitative research as a follow-up to quantitative research to aid in developing theories and understanding behaviours where insight may be lacking. This thesis, therefore, employed a pragmatic approach, utilising mixed quantitative and qualitative methods based on available data and primary data collection.[42]

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[40] *See 2.1.3 Data and materials on page 41.*

[41] *Set out in 1.4.3 Objectives on page 26.*

[42] *Pragmatists use multiple data collection methods to best answer the research question, employ both quantitative and qualitative sources of data collection, focus on the practical implications of their research, and emphasise the importance of conducting research that best addresses the research problem (Creswell, 2016:23).*

2.1.2 Abductive progression of analysis

Following Bourdieu's approach, and adapted from Vandenberghe (2022), the thesis sequence reflects an abductive progression of reasoning. See *Figure 4*. On embarking on the study, epistemological distancing was sought by surveying the literature and quantitative data on the identified research topic and adopting a reflexive stance.[43] Next, the field was constructed as an objective system of relations between social positions.

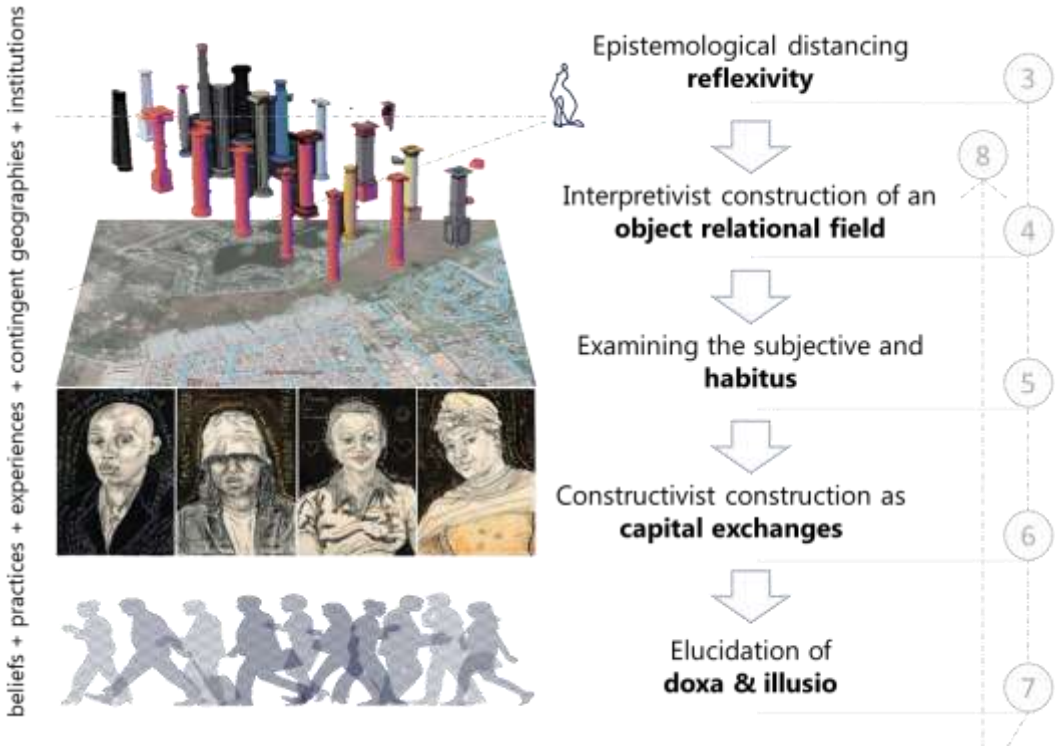


Figure 4: Abductive progression of the study. Associated chapters at right Modified images sources (top to bottom): Architecture4Design, n.d.; Millefoto, n.d.; Le Roux, 2017; PikPng, 2019.

Thereafter, subjective and affective dimensions were examined to discern patterns of habitus in the field relative to demographic features.[44] A structuralist construction of capital exchanges was then explored.[45] Elucidation of doxa and illusio was undertaken in considering the implications of the foregoing for the profession.[46] The thesis concludes with a reflexive stance.[47] For the research design, each of the four research objectives identified in chapter one of this thesis were matched to a mix of seemingly well-suited research techniques, as summarised in *Table 3*, and executed, in the abductive progression set out above, with reference to the model for distinction.[48]

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[43] *Principally at 3 FIELD ORIENTATION AND LITERATURE SURVEY on page 60.*

[44] *Principally at 5 PROFESSIONAL JOURNEYS on page 152.*

[45] *Principally at 6 CAPITAL AND ITS FLOWS on page 215.*

[46] *Principally at 7 PROSPECTS FOR TRANSFORMATIVE IMPACT on page 239237.*

[47] *See 8 SYNTHESIS on page 263.*

[48] *See 1.5.2 A model for distinction on page 33.*

Table 3: Summary of research design

Component and objective	Methodology and data sources	Epistemology and ontology	Attributes of the method	Outputs
Component 1: – research context and rationale Describe and characterise retention, attrition and transformation in the architecture professional development pipeline	Quantitative desktop methods, secondary archival data	Positivist objectivism, epistemological distancing	Statistical analysis of retention, attrition and demographic data	Descriptive statistics, conceptualisation of retention-transformation nexus
Component 2: - a structuralist constructivist view of the nexus Articulate a structuralist constructivist view of essential field dynamics and capital flows of the profession between 2000 and 2019	Desktop analysis, secondary data sources	Interpretivist constructionism	Field constructed as an objective system of relations between social positions	Conceptual framework of essential field dynamics and capital
	Interviews with key informants and practitioners, primary data sources	Constructivist constructionism	Subjective understanding of professional experiences regarding capital flows	Narrative analysis on insights into professional interactions and perceptions
Component 3: - social trajectories Consider habitus via a collection of personal histories of both retained and 'lost' APs via exploration of a diversity of subjective experiences and perspectives	Electronic survey, primary data source	Positivist/ Constructivist, objectivism	Quantitative and qualitative analysis	Analysis and visualisation of survey responses, quantitative analysis of trajectories, affective and perceptive dimensions
Component 4: – prospects for transformation Identify initiatives and instruments with the potential for enhancing transformation and minimising attrition and speculate on their utility to the future profession	Desktop methods, synthesis and original work key informant interview	Interpretivism, social constructivism	Interactive ideation with informants, considering outcomes, elucidation of doxa and illusio	Speculative scenarios, implications, recommendations for future initiatives
	Key interviews and desktop review of developed materials	Interpretivist, reflexivity	Evaluation of the feasibility and potential impact of identified initiatives on the future profession	Critical review of recommendations

2.1.3 Data and materials

Methodological eclecticism

Grenfell and Lebaron (2014) and Barrett (2015) explored the application of Bourdieu's ideas in data analysis and life history research, respectively, emphasising the need for methodological eclecticism and the consideration of habituated assumptions. Drawing inspiration from Bourdieu's work, this thesis invokes a pragmatic research design and an eclectic approach to the identification and use of data and materials, such as published and archival documents and data to augment primary data collection, such as survey and key informant engagement, assembling and presenting them as 'collage', or 'mosaic' (Barrett, 2015).

Available published and archival data

I made extensive use of the John Moffat Library and other libraries at University of the Witwatersrand (Wits), and a modest personal book collection. The research method incorporated analysis of routinely collected relevant data. SACAP shared its data on professional registrations since 1969.[49] In 2019 the cumulative professional registrar's data consisted of:

- Full names of individuals, registration number, standing, original and current date of registration, partially complete disability, gender, and race categories (22,538 records).
- Suspensions from the register (2016 to 2019). Demographic data and personal identifiers are not included.
- Architectural graduates from public institutions statistics (2012 to 2018), with graduate numbers, institution, programme, gender, and race.
- SACAP annual reports 2009/10 to 2022/23.[50]

Though the register provided data input fields to indicate disability, gender (in binary terms), and race, these were not comprehensively filled out.[51] SACAP consented to share data in its custody as listed above, subject to ethical use, compliance with the Protection of Personal Information Act 4 (POPIA) (Republic of South Africa, 2013[b]) and governed under a Memorandum of Understanding. This data provided crucial insight into the state of the profession and, when compared over time, some insight into transformation.[52] Incomplete data on the demographic makeup of the VAs was secured for 2018/19 from

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[49] The database platform has been regularly updated, and historical data, for example, on the first registration date, has not been maintained in a consistent format over time. Recording demographic data is not uncontroversial but has gradually moved from a voluntary data field introduced in the early 2000s to a mandatory field, so that SACAP's demographic data has gradually become more complete.

[50] SACAP could not locate earlier annual reports, and no other source was found.

[51] Contra B-BBEE classifications, SACAP designates race in the categories of 'black', 'Asian', 'coloured' or 'white', irrespective of national origin. In B-BBEE, non-South African black people do not 'count' as contributors to the transformation agenda, which instead distinguishes between local and foreign nationals. For consistency, where source data is found per the B-BBEE classifications, it will be 'translated' to align with the terminology defined above.

[52] Due to changes in data collection methods, reconstructing timeline data at a more detailed level (for example, to ascertain progression through professional categories over time) may be limited. It will require guidance from the data custodian and data preparation beyond the scope of this study.

SACAP. The Higher Education Management Information System (HEMIS) database is a comprehensive national dataset on post-secondary school activities, including headcount, race, and gender, classified according to the "Classification of Educational Subject Matter" (CESM) methodology. The Department of Higher Education and Training (DHET) have published data for HEMIS since 1999, and prior to that national data was maintained by the DHET's predecessor.[53,54]

No sector cohort study has been conducted for APs.[55] Although DHET has published five cohort studies to date, the lack of unique identifiers, post-graduate enrolment data and adjustments to CESM codes pose challenges to performing retrospective cohort studies on the architectural field (DHET, 2019), and to tracking progression through undergraduate and postgraduate phases of study.[56] Master's and doctoral degree programmes have enrolment and graduate numbers but did not record first registration until very recently. This feature makes cohort studies challenging for postgraduate degrees since the data series should be at least a decade long. SACAP and DHET maintain excellent datasets. Harmonising the data from the two sets to extend a university cohort study to determine attrition between university and workplace phases accurately would be technically challenging in the absence of unique identifiers such as identity numbers, and legally challenging due to POPIA, rendering a retrospective cohort study virtually impossible to compile with available data.[57] Nevertheless, with some preparatory work and robust assumptions, a strongly indicative quantitative study was conducted[58] using publicly available enrolment (DHET, n.d.[a]) and graduation data (DHET, n.d.[b]).

ALS maintain and archive registration data which includes contact details of graduates. Tertiary academic registration data have been accessed in previous studies in other professions.[59] However, the emergence of POPIA has placed restrictions on the sharing of personal data, rendering it unlikely that alumni's contact details would be made available, and this approach to constructing a cohort was abandoned at the research ethics application stage. Although quantitative data are available, there is a lack of relevant historical qualitative data.

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[53] *South African Post-Secondary Education (SAPE).*

[54] *2019 data publication delays were experienced due to COVID-19 (Personal communication, DHET, 2020). Between 2000 and 2005, data management was affected by mergers between universities and universities of technology.*

[55] *Universities (not DHET) are data custodians, and applicable legislation, POPIA, makes data sharing across institutions legally challenging. This complex legal and ethical environment compounded the technical challenges arising from the substance and format of the data collected.*

[56] *Higher Education Management Information Systems (HEMIS), 2019.*

[57] *The Protection of Personal Information Act 4 of 2013 (POPIA) is legislation to regulate and protect the flow and exchange of personal information.*

[58] *As presented in 4.1 Quantitative View of the Pipeline on page 96.*

[59] *For example, to track and survey medical graduates from Wits (George & Blaauw et al., 2019).*

Free-to-attend, continuing professional development (CPD) points-bearing seminars were hosted on various online platforms, during the period of conducting this study of relevance to the topic, notably:

- SOARING 21 SACAP Annual Stakeholder Convention (SACAP, 26 August 2021);
- Watch the SAIA 'many voices' webinar #1 Topic discussion: race, transformation and SAIA (SAIA,15 June 2021);
- SACAP risk work webinar (SACAP, 21 June 2024); and
- Young professional webinar (SACAP, 18 July 2024).

These events were curated to include a diversity of viewpoints and robust discussion. They were lengthy, recorded, and published online. Although they fell outside the study period, they were considered valuable materials for gaining qualitative input into the state of the field and clearly referred to ongoing systemic concerns that extended to before 2019.

Use of technology

In preparing this thesis, extensive use was made of modern technological tools, including well-accepted, comprehensive internet research methods.[60] In 2020, on embarking on the study, the following conventional digital literature search logic, assisted by information specialists, was deployed:[61]

- (TITLE-ABS-KEY ("demographic transformation") AND TITLE-ABS-KEY ((retention OR attrition)) TITLE-ABS-KEY ((gender OR race OR intersectionality OR network* OR connect* OR ubuntu)) AND TITLE-ABS-KEY (workplace) AND TITLE-ABS-KEY ("South Africa")) – 0 HITS
- [Publication Title: retention] OR [Publication Title: attrition]] AND [[All: gender] OR [All: race] OR [All: intersectionality] OR [All: network*] OR [All: connect*] OR [All: ubuntu]] AND [All: "south africa"] AND [[All: workplace] OR [All: profession]] AND [Publication Date: (01/01/2010 TO 12/31/2020)]
- [All: loss or attrition or retention or retain] AND [All: workplace or profession] AND [All: demography or demographic] AND [All: race or gender] AND [All: “south africa”] AND [[All: workplace] OR [All: employment] OR [All: jobs] OR [All: profession] OR [All: work]] AND [Publication Date: (01/01/2010 TO 12/31/2020)]
- Google: allintitle: demographic transformation gender "South Africa" employment OR work OR job OR profession OR architect OR workplace "attrition"
- "demographic transformation" AND (intersectionality OR networks OR connectedness OR ubuntu) AND (attrition OR turnover OR retain OR retention) AND (employment OR work OR job OR profession OR architect OR workplace) AND "South Africa"
- “demographic transformation” AND (retention OR attrition) AND (workplace OR profession OR architecture*)

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[60] *Microsoft® Office™ suite, freeware, Google®, SankeyMATIC™ and SurveyMonkey™.*

[61] *Utilising the following resources: Scopus, Science Direct, Taylor and Francis, Springerlink, WorldCat, South African Journal of Industrial Psychology, South African Journal of Human Resource Management, Google Scholar - advance search function - yielded theses and some publications from ResearchGate and Academia Edu.*

Contemporaneously, open-access artificial intelligence (AI) technologies emerged, precipitating a paradigm shift. It is revolutionising data collection, hypothesis testing, result validation, and solution optimisation options. Although AI can potentially transform research methods, it depends on human input to generate responses. Presumed not capable of producing original research, it is therefore not recognised as a legitimate author (The British Educational Research Association (BERA), n.d.; Academy of Science of South Africa (ASSAf) & Scientific Electronic Library Online (SciELO), 17 September 2024). AI -particularly generative AI - has a known propensity to fabricate answers or 'hallucinate', generate errors, synthesise data and otherwise corrupt the integrity of established scholarly processes (BERA, n.d.; ASSAf & SciELO, 17 September 2024). Therefore, AI should not be held accountable for errors. Scholars must remain accountable to act ethically and with integrity and take due care to ensure that the "application of AI-based tools does not lead them to plagiarise, misrepresent or falsify content, or infringe third party rights" (BERA, n.d.). Open-source natural language AI tools[62] were used in this thesis to identify primary resources quickly, obtain immediate answers to questions arising, generate critical feedback for evolving assertions, and propose refinements to my original thoughts and text. I hereby disclose the use of AI while upholding a commitment to critical assessment, careful utilisation, and verification of the quality and accuracy of AI-generated input, aligning with guidelines on the use of generative AI tools in education as outlined by the ASSAf and SciELO Guidelines (17 September 2024) and BERA (n.d.). The specific tools used, how they were applied, the risks identified by the author and how these were managed in the doctoral study are tabulated in *Table 4*.

Table 4: AI tools, applications, risks and guardrails

Internet browsing tools: Google®, Google Scholar®, Microsoft® Bing™
Application: 1. Locating internet-hosted materials, including popular articles, YouTube™ videos, and industry reports (CBE, SAIA, SACAP, government gazettes after ~2000, Statistics South Africa (StatsSA), DHET/HEMIS data). 2. CSIR's Information Services (CSIRIS) subscribes to various digital resources, and these documents are most readily visible using Google Scholar, from where accessible peer-reviewed articles and grey literature sources are downloadable, subject to permission. **Risks:**[63] Google was found unsatisfactory as a tool for locating peer-reviewed publications, and Google Scholar was found mediocre. However, as a platform to assess CSIRIS accessibility of resources and to review authors' abstracts, Google Scholar was deemed an excellent tool. Google and Microsoft Bing were deemed suitable tools for locating popular articles and grey literature.[64]

[62] *ChatGPT, Elicit, Copilot, LitMaps, SciSpace by Typeset, and DocAnalyzer.*

[63] *Author assessed.*

[64] *CSIR defines grey literature as unpublished or work published in non-commercial channels, including technical reports, conference papers, theses, government reports, policy statements, newsletters, fact sheets, policy documents, etc.*

Guardrails: Internet browsing tools were used (in conjunction with search and discovery tools) to locate full-text source material, to augment the University of Witwatersrand library and CSIR-information services processes. The credibility and relevance of sources were critically evaluated. Sources cited in the thesis are overwhelmingly retrievable, much of it digitally, with source URLs supplied in sources cited. Copies of most digital source material have been retained on my PC and can be inspected on request.

Search and discovery tools: Elicit™, LitMaps™, SciSpace™ by Typeset®, Scopus™ AI, DocAnalyzer™

Application: Scopus AI, Elicit and SciSpace by Typeset natural language models were used in exploring available literature to expand on library and information specialist systematic reviews. These tools were determined to be especially useful for identifying literature from contexts other than the USA and Europe (for example, Benhamouche & Lebdiri et al., 2023; Fulani & Amole, 2016)**.** Litmaps were used to find papers related to seed papers, identified through other search and discovery tools or methods. DocAnalyzer was used to locate specific concepts, or text within PDF documents, and was especially useful to locate page references.
Risks: Elicit and (to a lesser extent) SciSpace by Typeset misidentified papers, provided incomplete abstracts, and provided references to documents I could not access. These tools generated 'citations', which were sufficient for documents to be located but unusable for citations. DocAnalyzer did not read all texts uploaded.
Guardrails: Documents identified using Scopus AI, Elicit, LitMaps, and SciSpace by Typeset were then sourced through Google Scholar, and if the full-text item could not be located, they were disregarded. AI-identified page numbers were manually checked. CSIR conducted a thorough investigation into Elicit and produced a 150-slide presentation, and shared its findings internally in the organisation (Van Zyl, March 2024). AI use was guided by strengths and weaknesses identified, and in ongoing peer group discussions. CSIR's trial version of Scopus AI was applied.

Content generation: Microsoft® Office™ suite, Writefull™, WritefullAI™, Copilot™, ChatGPT™ and Freepik™ AI; Grammarly™ AI

Application: Preparing, formatting, and editing the thesis, generating images.
Risks: Data integrity, falsification, plagiarism.
Guardrails: Microsoft was a trusted brand. All text derived from other authors' work was immediately paraphrased using Copilot or ChatGPT and cited or maintained in quotation marks verbatim and cited. Sources were overwhelmingly retrievable, much of it digitally, with source URLs supplied in sources cited. Primary source material, such as interview recordings were maintained on my PC, and email records were routinely kept of correspondence (by CSIR). Key informants have a penultimate excerpt of text shared to verify that their input was honestly reflected. Inputs were subject to informed consent. Writefull, Writefull AI, Copilot and ChatGPT were used as editing tools to check the grammar of my text, paraphrase, and summarise. Where AI-generative texts were incorporated, they were thoroughly checked by the author prior to incorporation into the body text. Paraphrasing, summarising, and other edits assisted by AI are not noted. The penultimate draft was subjected to iThenticate™ (plagiarism tool) run by CSIRIS, and overseen by a third party, scoring eight per cent on a similarity report. Freepik AI software was used to generate images for Figure 18 photocollage, and this is clearly labelled in the caption.

Coding with AI: ChatGPT

Application: Used ChatGPT to generate VBA code to compile data from DHET CESM, graduate and enrolment data and StatsSA construction area and cost data from multiple spreadsheets for categories of interest.
Risks: I have no skills in VBA code generation. However, manual transfer of data was highly likely to result in errors and would be very time-consuming.

Guardrails: The researcher opened individual spreadsheets and checked sources against compiled data (for every DHET file and for >10% of StatsSA) data. The AI-generated coding was also debugged and independently checked by CSIR programmer, Sheldon Bole, with VBA expertise. Incomplete DHET CESM data was publicly available for 2018/19 and 2016/17 DHET data, and data after 2016 was duly discarded.

Data analysis: Microsoft Office suite (especially Excel); ChatGPT

Application: Used simple embedded tools for calculations and visualisation of data obtained from primary research (SurveyMonkey), and secondary data sources (HEMIS data, StatsSA data). Used ChatGPT AI to speed up function formulations to extract data from spreadsheets. Deployed ChatGPT to sort open-ended text responses (*Text Box 1*).
Risks: Maintaining confidentiality, AI generating incorrect, falsified or misleading responses.
Guardrails: No confidential information was entered into an AI tool. All AI-generated responses were manually checked and enhanced prior to incorporation into documents. ChatGPT was recruited for ranking open-ended questions from most to least likely to return. Output was critically reviewed by the author before insertion into the document. All AI-assisted analysis work is clearly marked in the thesis manuscript, and marked with the disclaimer 'cannot be verified', where applicable.

Primary data collection: SurveyMonkey™

Application: Designed and distributed surveys for data collection, ensuring informed consent and data privacy.
Risks: Violation of confidentiality, falsified data, loss of data integrity.
Guardrails: The use of SurveyMonkey was anticipated in the doctoral proposal stage and was included in the ethics applications submitted to the University of Witwatersrand and the CSIR. Its use was foreseen in the "*Guidelines for Human Research Ethics Clearance Application (Non-Medical)*" (University of the Witwatersrand, August 2021) and was cleared by CSIR's Privacy Office (Senior Compliance Specialist: Legal and Compliance Services). The survey instrument was piloted within the CSIR before publishing through other channels. No personal data was collected for the electronic survey. The raw dataset is available on request.

Data visualisation: Microsoft Office suite (especially Excel™); SankeyMATIC™; eulerr

Application: Created visualisations using embedded tools (Excel) and online free Sankey diagram generating applications (SankeyMATIC™) and proportional Venn diagrams (eulerr) tools to visualise flow diagrams and overlapping response incidence, respectively.
Risks: Falsified, incomplete, or poor-quality data could mislead readers. Unscientific tools could lead to misrepresentation, and poorly labelled visualisations can lead to misinterpretation.
Guardrails: Credible data sources were used; visualisations were clearly labelled. Online tools were inspected with simple visualisations. Although these tools are not independently scientifically validated, their use was indicative and to enhance communication of findings. Harms that arise from mathematical inaccuracy (if they exist) in Sankey or Venn diagrams were considered by the author to be unlikely and inconsequential. Data was retained in raw form and analysed only in copy. Raw datasets are available on request.

Scholars' companions – all of the above

Application: Brainstorming, writer's block remover, critic and interlocutor.
Rewards: Remaining current, improved efficiency, improved quality, immediacy.
Guardrails: Regularly consulted formal policy, applied guidance, and reflected on ethics. Invested in becoming prompt savvy (through engagement with tools), critically noting each AI's strengths, weaknesses and tendencies, remaining abreast of unfolding developments and discussions with peers, experimenting, and triangulating results. Remained humble and receptive to correction when better methods or alternate evidence were present.

The intent of using AI in this manner was to enhance this work's efficiency, quality, and rigour. Furthermore, it served as an opportunity to explore, test, and reflect on AI's role as an interlocutor, companion and supportive technology in the academic realm.

2.2 Four Components: Data Collection and Analysis

2.2.1 Component 1: – research context and rationale

Component 1 aligned with the first study objective[65] , which was to delineate the professional pipeline, quantify losses, to confirm (or refute) SACAP officials' contention of attrition and poor transformation.[66] This component employed a descriptive and analytical approach to examine generic and typical career progression pathways of APs, focusing on their positioning, educational pathways, and professional registration, with reference to the regulatory, institutional, socio-economic and historical context in which they were located. To address this, the architecture profession is depicted as primarily produced and reproduced through a development pipeline progressing from enrolment at ALS, via graduation, through candidature, and then advancing through the profession, with inputs, flows and losses mapped and quantified. The pipeline analysis was achieved by a desktop review of available literature, archival records, data integration, analysis and visualisation.[67] Race and gender were examined individually. The study focus period was from 2000 to 2019, subject to data availability, although historical timeframes were included in some analyses to contextualise the data in the study period.

2.2.2 Component 2: – a structuralist constructivist view of the nexus

Component 2 of the study addressed the second study objective, adopting a structuralist constructivist lens. Building on Component 1, and the literature review, this component of the study set out to document the structures and structuring dynamics of the profession with a particular focus on the years between 2000 and 2019, using Bourdieu's sociological concepts. The field was delineated, and its configuration, instruments, and institutions were described to construct the field as an objective system of relations between social positions. The essential field dynamics[68]and capital flows[69] were examined using document textual analysis and through engagement with purposively selected key informants through email correspondence and or interviews. Interviews were either face-to-face, virtual or telephonic. A disproportionate number of participants were practising academics ('pracademics') because referrals routinely pointed to these individuals who were widely accepted as having informed views on the field and who were likely academics for this reason. The eldest person I engaged was a retired nonagenarian, and the youngest, a recent graduate, was in her early twenties. Inputs were gained from APs in four of nine provinces and from diaspora living and working abroad. I engaged with several individuals who had left the field entirely (or mostly). Although I endeavoured to obtain demographic representativity concerning race and gender, I was only partially successful, as summarised in *Table 5*, which records South Africa's background

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[65] *Identified in 1.4.3 Objectives on page 26.*

[66] *See 1.1 Background and Rationale on page 19.*

[67] *See 2.1.3 Data and materials on page 41.*

[68] *See 4 A STRUCTURAL VIEW OF THE FIELD on page 96.*

[69] *See 6 CAPITAL AND ITS FLOWS on page 215.*

population, graduates from architecture programmes and SACAP RP data for comparison. *Table 6* provides a partial list of key informants, APs, experts interviewed, office bearers, and officials who directly contributed to the study. I engaged APs in public and private sector practice, a reputation and influence specialist, two thought leaders in the consulting engineering profession, a law professor and sociologist, a medical doctor, an individual in a project management leadership role, several office bearers, academics from most universities, and at least five authors extensively cited in this work.

Engagements averaged just under two hours, with the longest being nearly six hours and the shortest being two emails. Participation was entirely voluntary and subject to formal consent. Participants were free to withdraw at any point. Participants could elect to have their contribution acknowledged or could remain anonymous. The penultimate draft of this thesis was shared with participants before the submitted thesis's finalisation.[70] For analysis of data for component 2, extensive use was made of the model for distinction[71] as well as the works of Stevens (1998) and Bourdieu (1984).

Table 5: Key informant participant summary

	ZA[72]	**SACAP RP**	**AP graduates**	**Key informants**
♂	48%	75%	56%	54%
♀	52%	25%	44%	45%
black^	92%	35%	44%	34%
white	8%	65%	54%	67%

2.2.3 Component 3: – social trajectories

Component 3 of the doctoral study related to the third objective: to consider the range and diversity of subjective experiences through a collection of social trajectories of retained and 'lost' actors through the pipeline, using an electronic survey. Primary data on perceptions were gathered, visualised, and analysed, considering race and gender for both 'lost' and retained APs as they encountered and navigated the structures described in Component 2. The following aspects, considered seminal in the development of APs' habitus based on the literature reviewed, were traced: the field, institutions, workplace experiences, and ARCHIculture.

Bourdieu and self-accounts

Although Bourdieu was ambivalent about the use of self-account in sociological research, he nevertheless saw its role as part of methodological eclecticism (Barret, 2015). He regarded accounts of the lived experiences of individuals within a particular field, through engagement with them on their experiences, perceptions, and interpretations, as useful if they were understood to be structurally conditioned and likely to be overly coherent. Bourdieu was interested in personal history, qua collectively considered multiple social trajectories shaped by societal structures.

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[70] *See also Appendix G – ethics approval.*

[71] *See in 1.5.2 A model for distinction on page 33.*

[72] *Total population of South Africa by gender (Statista, 2023).*

Instrument design

Previous research (for example, Jena & Pradhan, 2018; Cable & Judge, 1996; NOMA & NCARB, 2021a; NOMA & NCARB, 2021b) and the literature review findings informed the research design. The NOMA and NCARB instruments were modified to include indicators on contingent geographies and language and to incorporate professional values. The survey questionnaire is appended.[73]

[73] *See Appendix D – questionnaire*.

Table 6: Key informant table

Expert/ informant	Gender	Race	Date of consent	Field	Province[74]
Dr Shaun Adendorff	♂	white	18 September 2024	Architect (private) + author	WC
Anon 1	♀	black^	24 June 2024	Architect (public)	KZN
Kevin Bingham	♂	white	9 April 2024	Architect (private) + SACAP, UIA & SAIA office	KZN
Anon 5	♂	white	19 April 2024	Retired architect	GP
Helen Counihan-Greene	♀	white	2 July 2024	Architect (private)	WC
Dr Calayde Davey	♀	white	12 June 2024	Architect + academic	GP
Adheema Davis	♀	black^	29 April 2024	Architect + SAIA office bearer	KZN
Chris Junior De Bruin	♂	white	17 June 2024	Architectural technologist + activist	GP
Thorsten Deckler	♂	white	20 July 2024	Architect + author	GP
Boitumelo Dire-Masela	♀	black^	25 March 2024	Design Manager (international)	WC
Claire du Trevou	♀	white	17 July 2024	Architect (international)	International
Robyn Glanville	♀	white	11 November 2023	Candidate	GP
Anon 2	♂	black^	2 July 2024	Architect + academic	GP
Anne Graupner	♀	white	25 July 2024	Architect + author	International
Heleen Grimsehl	♀	white	3 July 2024	Architect + partner in large practice	GP
Anon 6	♂	white	26 Jun 24	Architect + academic	GP
Richard Hussey	♂	white	17 June 2024	Retired architect (public)	GP
Anon 3	♂	white	5 July 2024	Retired architect (public)	GP
John Kiggundu Kamulegeya	♂	black^	26 June 24	Architect	EC
Professor Jonathan Klaaren	♂	white	20 August 2024	Lawyer, sociologist, author	GP
Tinus Kruger	♂	white	06 May 24	Retired architect researcher	GP
Elaine Lamb	♀	white	8 October 2024	Practising registered professional architect	WC
Allyson Lawless	♀	white	15 August 2024	Engineer, SAICE President 2000, Engineering Skills Researcher	GP

[74] *WC - Western Cape* *GP - Gauteng Province* *KZN - KwaZulu-Natal* *EC - Eastern Cape* *NW - North West*

Expert/ informant	Gender	Race	Date of consent	Field	Province[74]
Keitsitse Losaba	♀	black^	30 June 2024	Architect	GP
Anon 4	♂	white	22 May 2024	Architect	GP
Gingirikani Maswanganye	♀	black^	24 June 2024	Architect + academic	WC
Dr Jennifer Mirembe	♀	black^	5 December 2023	Architect (public)	GP
Ketumile Mojanaga	♂	black^	17 July 2024	Candidate architect	GP
Karuni Naidoo	♀	black^	24 December 2021	Architect + office bearer	KZN
Krynauw Nel	♂	white	12 December 2023	Architect + office bearer	GP
Anon 7	♂	black^	29 July 2024	Architect + academic	GP
Dr Jason Oberholster	♂	white	24 June 2024	Architect + academic	GP
Dr Judith Ojo-Aromokudu	♀	black^	1 July 2024	Architect + academic	KZN
Tunde Ojo-Aromokudu	♂	black^	5 March 2024	Architect + project manager	GP
Nqobile Nompilo Okyere-Dede	♀	black^	24 February 2024	Urban housing & land justice	International
Mandisa Pepeta	♀	black^	11 June 2024	Architect + practice owner	KZN
Henning Rasmuss	♂	white	25 July 2024	Architect	Regional
Professor Andrew Robinson	♂	white	20 August 24	Medical doctor + academic	NW
Sergio Santos-Van Vuuren	♂	white	4 July 2024	Reputation + influence specialist	GP
Sarah Saunders	♀	white	21 August 2024	Advocate	GP
Mbasa Xolisa Tshombe	♂	black^	13 February 2024	Architect (public) + Council member SACPCMP /6th Term	GP
Dr Johann Eduard Van Der Merwe	♂	white	26 June 24	Engineer + academic	GP
Dr Laetitia Van Der Merwe	♀	white	3 July 2024	Architect + academic	GP
Llewellyn Van Wyk	♂	white	25 April 2024	Architect + SAIA office bearer (retired)	International
Professor Christo Vosloo	♂	white	27 June 2024	Architect + academic (retired)	GP
Professor Ron Watermeyer	♂	white	06 May 24	Engineer, procurement specialist	GP
Rob Young-Pugh	♂	white	07 May 24	Architect + author	WC

Target population and inclusivity in invitation

The aim was to obtain the maximum number of authentic and consenting responses. The survey target population was identified to be:[75]

- RPs (all categories) (n=11,913) and
- Those who never registered or whose registration had lapsed (n=6,637).

Based on these estimates, a survey response target of 400 was set. For survey invitations, potential participants were asked the question, "Have you ever embarked on a career in the architecture profession in South Africa?" If so, they were invited to participate "*whether or not* they had persisted". This approach was intended to ensure participation was as inclusive as possible by making provision for any individual currently or previously self-identified as architectural practitioners, irrespective of their professional path or status.

Data collection, preparation, and presentation

A commercially available electronic survey tool was utilised to develop the instrument and collect data.[76] The instrument was piloted and refined among nine work colleagues (targeting research methods specialists and fellow architects). The survey was distributed via SACAP, participating VAs,[77] and the alumni offices of three universities, which had assented to participate. Social media platforms[78] were utilised to host the survey link and advocate for participation.

Data were imported from the collector to commercial office software. It was cleaned and processed, coded for gender, race, and age, and validated where feasible. Data were prepared for visualisation via commercial office software and open-source software, as earlier described.[79]

2.2.4 Component 4: – prospects for transformation

The fourth component related to the fourth research objective: to identify initiatives and instruments with the potential for enhancing transformation and minimising attrition and speculate on their utility to the future profession. Building on the preceding findings from document analysis, key informant interviews and survey data, emergent issues pertinent to the retention-transformation nexus were arranged into four varietals. The first varietal concerned issues outside the study's scope or considered, upon review beyond the reasonable influence of the profession. The second varietal was thought to offer straightforward recommendations for implementation, where the identified interventions were, at least prima facie, resolvable. The third varietal dealt with the selection of complex and controversial themes. The fourth varietal itemised areas identified for further research.

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[75] *See 4.1 Quantitative View of the Pipeline on page 95*.

[76] *SurveyMonkey*.

[77] *South African Institute for Architects, South African Institute of Building Design, Limpopo Institute for Architects, South African Institute of Draughtsmen, Cape Institute for Architects, and Border Kei Institute for Architects*.

[78] *My personal Facebook and LinkedIn accounts*.

[79] *In Use of technology on page 43*.

2.2.5 Scope and limitations

Assumptions

The ontological assumption was made that the economy was a separate entity from individual human actions or intentions and operated according to its principles and out of the control or influence of APs. The normative stance maintained that demographic representativity in professions was generally achievable and beneficial.

Field of interest

This work primarily considered 'architecture' as a profession (or 'field') and did not – except where the context or the denotation indicates otherwise - consider architecture-as-artefact or architecture-as-discourse. Other specific exclusions were:

- Internationally and in South Africa, the evolution of technology not only reshaped technical processes of design and documentation production but also redefined the cultural and social dynamics within architecture practices and public perceptions about the profession between 2000 and 2019. This was excluded from the scope.[80]
- Virtual and physical emigration and immigration impact both attrition and transformation. This was not a central focus of this thesis, as it was an area of enquiry warranting investigation in its own right.[81]
- Although this work considered both race and gender dimensions, it did not place their intersectionality, as conceived by Kimberlé Crenshaw (2017) and developed by others, at the centre of the study, except incidentally.[82]
- Personal or circumstantial factors (for example, lacking aptitude, interest, illness) may lead individuals to leave a profession. These were not central considerations in this thesis since there may be little to be done to predict or address these factors.

Cohort of interest

The primary cohort under consideration comprised individuals who either self-identified or aspired to pursue architecture careers at some point between 2000 and 2019 and who subsequently took concrete steps towards realising or successfully realised this ambition. This group, 'APs', encompassed those who underwent formal education and obtained degrees from architecture learning institutions, as well as those who engaged in apprenticeships within architectural firms. Furthermore, it encompassed individuals who officially registered as candidates or professionals, those who were eligible for registration but did not pursue it, either allowing their registration to lapse or never intending to register. Key informants and active practitioners were identified from those who undertook activities which would lend insight into the themes of interest. Specifically, these included demographically diverse transformation champions and activists, public sector officials, and a mix of young, mid-career and academic practitioners.

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[80] *See The role of technology in field and capital on page 258.*

[81] *See APs in motion: emigration, immigration and nomadic work on page 257.*

[82] *See Intersectionality on page 254.*

Sampling bias
The study focused on the profession and professionals remaining in South Africa.[83] The study reviewed only English-language material, which addressed, by extension, mostly anglophone territories. Certain publications on the topic may have been unintentionally neglected.

Cognitive biases
In general research design is subject to cognitive biases. Methodologies drawing on perceptions are subject to cognitive biases. This thesis was conceived shortly before the onset of COVID-19. Although the global pandemic was well underway as the study details were worked out, it was decided to focus on the pre-COVID-19 decade. Participants were engaged in a manner intended to obtain a longer-term view of professional journeys. However. human beings have cognitive tendencies to more readily recall the recent past. In addition to personal experiences this will have included the pandemic and its aftermath, marked by war abroad, muted economic performance, deepening unemployment (discussed later) and ongoing electricity blackouts. These would likely to infuse the perceptions of participants and influence their responses.

Temporal delimitation
The study primarily focused on the period between 2000 and 2019. It commenced at the promulgation of Act 44, which established the statutory body anew and a new set of registration categories. COVID-19 in early 2000 heralded notable international disruptions and, therefore, marked the end of the study.[84] However, material leading up to or after this was sometimes included for context.

International examples from history limited
Political shifts lead to moments of change during which capital stakes are renegotiated, sometimes changing the demographic of who finds place and is recognised in the field. Thus, there could be interesting parallels around transformation of social groups and access to the profession at times following regime transition. Notable scholarship includes Stanek's account of 'Africanisation' in Ghana leading up to and following independence (2024); Fisher (1998) and Posel (1998) on Afrikaaners under Apartheid; and Brumfield (2005) on Soviet Union in the 1920s after the communist revolution. However, accounts of international societies in transition from history would have introduced important complexities given the uniqueness of each of these times and places. These factors rendered comparative history substantial topics, meriting their own study. To avoid superficiality, these were scoped out.

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[83] Emigration is common among APs who may be counted as 'lost'. The study inevitably biased towards individuals with a South African presence as they were generally easier to locate, approach, and include. Nevertheless, the study did enjoy participation by multiple individuals who had emigrated, semi-grated, enjoyed a hybrid working style, or permanently or temporarily relocated outside South African borders.

[84] In 2020, COVID-19 caused major disruption globally and locally, which must be considered in evaluating discussion and findings.

Geographical delimitation and regional relations

The thesis focused on the more introverted aspects of transformation, scoping the research in terms of South Africa as sovereign nation state, while overlooking its regional and continental situatedness. These topics could have been further explored in relation to the architecture profession, since South Africa's position raised considerable opportunities for rethinking identities and relationships and building regional and international legitimacy. This entailed that African architectural practitioners from SADC and beyond were able to travel to South Africa, as was extensively detailed earlier.[85] Additionally, for the first time white professionals (including APs) could seek business in African countries, particularly where their local capacity was limited, competing with European, North American, Indian, Sri Lankan, Soviet and Chinese consultants (Stanek, 2024:197). Able to travel efficiently with new air routes, offering very competitive rates (given the Rand / USD/ Euro exchange rates), and with the constrained economy and legislative environment domestically, this was a lucrative and welcome alternative for APs – particularly white APs - to access work.

Although the study sought to identify and consider literature from the Southern African Development Community (SADC) region and Africa, for example by expanding the desktop search methods to include grey literature, it did not extend this method to reach out to the African Union of Architects, the International Union of Architects (UIA), professional registration bodies and the voluntary associations of neighbouring countries and regions. Thus, the situated nature of the profession on the continent and comparative experiences of transition remain gaps.

2.3 Ethos

2.3.1 Engagement dynamics

Researcher positionality

Throughout the doctoral endeavour, I have aimed to be rigorous, reflexive and cognisant of my positionality, perspective, and potential unconscious bias, critically examining their impact on the inquiry. I have prepared an extensive autoethnography to document some of this.[86] Writing in the first person aligns with Bourdieu's recognition that knowledge production is shaped by power, social position, and embodied experience and aligns with his call to reflexivity, by exhibiting critical self-awareness. It is achieved through revelation via an honest of engagement in the field, recognition and acknowledgement of any personal investment in the research topic and process. It concedes the ways in which habitus influences interpretation of the data.

Audience and participants

The thesis was principally written for an academic audience comprising scholars interested in attrition, retention, or transformation and for the architecture profession of South Africa. It was written with an international reader in mind, addressing context and history familiar to local readers. It was hoped that the work will provide a sound description and record of the profession in a window of time, some basis for critical reflection by APs, regulators, VAs, and other professional social network groups.

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[85] *See 4.4.1 Portal structuration of the field 1 → 2 – graduate to candidate on page 122.*

[86] *Redacted - available on request.*

Ethics

In each instance where participants' input was sought, care was taken to include diverse perspectives to include voices from a range of demographic,[87] geographic and socio-economic circumstances. Ethics approval was sought and obtained from both University of Witwatersrand Ethics Committee (Non-Medical) and the Council for Scientific and Industrial Research (CSIR) Research Ethics Committees.[88]

The study involved human subjects through correspondence, interviews, and surveys. All participants were adults. Participation was entirely voluntary, with express informed consent. Electronic survey data was blind as no personal information was collected. For other aspects, consenting participants were provided an option of having their contributions acknowledged or to remain anonymous.[89] Data was collected, handled, and will be disposed of in accordance with the stipulations of the approved ethics applications and POPIA.

2.3.2 Style and representation

Aesthetics & personal ethics

This thesis's style, format and representation techniques were selected to be visually consistent and intuitively readable to the audience identified above and comply with supervisors' guidance. In referencing, I endeavoured to remain truthful, while intentionally refraining from the use of '[sic]' to signal grammatical errors in valued contributions. I have paid respect to referenced work regarded as 'unpublished', for example, theses, 'as if' (per Bourdieu) these were 'legitimised' as a point of personal ethics.[90]

Evolution of approach and method

The outlined methodology delineates the process ultimately pursued, albeit more iteratively than implied and with minor deviations from the original doctoral proposal. The principal alterations and their rationales were:

- The temporal parameter was initially from 2010 to 2019. This was modified from 2000 to 2019. This adjustment was made to synchronise the commencement date with a seminal event in the field (the enactment of Act 44), contrasting with the initial selection of 2010 for its convenience in data accessibility.
- Although the academic phase was discussed, it was neglected to focus on the liminal professional phase following graduation.

The original working title, "*Attrition and Transformation in South Africa's Architectural Professions: race, gender and Belonging, 2010-2019*" was amended to reflect these changes.

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[87] *Such as race, ethnicity, gender, and age.*

[88] *As displayed in Appendix G – ethics approval.*

[89] *See 2.2 Four Components: Data Collection and Analysis on page 47.*

[90] *In rejection of a controversial view related in the media, regarding the non-publication status of academic theses and dissertations. See Retraction Watch (3 June 2024).*

Table 7: Timeline of architecture profession institutions in South Africa

	1922 SA first architecture schools		**Breaking down elitism**	**2015 #... must fall**
	South Africa's first schools of architecture open at University of Cape Town and University of Witwatersrand.		1983 University Amendment Act allows for admission for small quotas of black students into white universities and the 1997 Higher Education Act paves way for mergers of geopolitically scattered and racially segregated universities and technikons.	From 2015 and in the years following, South African students have campaigned for socioeconomic inclusion in admission to universities under the #Fees Must Fall initiative and campaigned for decolonisation under #Rhodes Must Fall.
1873 SAs first university	**1916 University Act**	**1959 Blacks prohibited at white universities**	**Unrest**	**2008 Canberra Accord**
First university - 1873 University of the Cape of Good Hope established, modelled on University of London, caters for white elite, initially setting standards and examining only; becoming a number of colleges and emerging as UNISA (large distance learning institution), never offering architecture	University Act legislation paved the way for the establishment of the South African Native College, now called University of Fort Hare, furthering the process of separation education provision based on race, foreshadowing official apartheid. The black universities did not offer architecture studies.	1959 Extension of University Education Act made it a criminal offense for a non-white student to register at a formerly open university without the written permission of the Minister of Internal Affairs.	The 1970's and 80's saw increased civil unrest and mobilisation and increasing resistance to apartheid, met with brutal state opposition and escalating tensions. 1976 Soweto uprising, Sharpeville massacre and ongoing protests.	South Africa signs the "Canberra Accord on Architectural Education: Recognition of Substantial Equivalence between Accreditation/Validation Systems in Architectural Education" intended to facilitate the portability of educational credentials between the countries.
1873 1882 1900 1905 1910 1915 1920 1925 1930 1935 1940 1945 1950 1955 1960 1965 1970 1975 1980 1985 1990 1995 2000 2005 2010 2015 2020				
COLONIAL ERA	UNION ERA	APARTHEID ERA	DEMOCRACY	
1834 RIBA established	**1927 SA Architects Institute**	**1945 SABS established**	**Building regulation**	**2000 CBE established**
Royal Institute of British Architects established for 'the general advancement of Architecture, and for promoting and facilitating the acquirement of the knowledge of the various arts and sciences connected therewith'. Develops strong ties with architects in the Commonwealth. For decades SA architects affiliate with RIBA and five schools	1927 South African Architects Institute starts with 506 architects and 137 quantity surveyors, bringing into the fold a number of existing regional bodies predating union. Set about making registration compulsory, defining code of conduct, influencing education standards, setting fee scales and promoting the profession with the public.	The South African Bureau of Standards (SABS) was established in 1945 with a mandate to provide national standards. In 2008 a body National Regulator of Compulsory standards (NRCS) was set up in SABS regulatory function for the building industry to ensure building safety, structural stability and uniform interpretation of the NBR.	The National Building Regulations and Building Standards Act of 1977 was promulgated to promote uniformity in the law on the erection of buildings in the areas of jurisdiction of local authorities by prescribing national building standards.	Council for the Architectural Professions was established as an umbrella body to oversee and coordinates six Councils for the Built Environment Professions - Architecture, Landscape Architects, Engineering, Property Valuation, Project and Construction Management, and Quantity Surveying.
Architect's societies	**SA examines own architects**	**1950 Group Areas Act**	**Regulation shifts from AP to the State**	**2000 Act no.44**
Regional architects' societies arise in the wake of major urbanisation, migration and population growth and increase in economic and building activities in the mining towns and ports. Cape Institute (1899), Port Elizabeth Society (1900), East London Chapter (1946), Natal (1902),Orange Free State (1921), Transvaal (1909).	1930 RIBA cedes examinations to South African schools. Five elite schools of architecture maintain RIBA accreditation, until 1986, when British government finally yields to pressure exerted from the early 1970s by civil society and Architects Against Apartheid to impose cultural and economic sanctions on South Africa (AAMA (n.d.)).	Group Areas Act was the title of three acts of the Parliament of South Africa enacted under the apartheid government of South Africa. The acts assigned racial groups to different residential and business sections in urban areas in a spatialised system of urban apartheid. The spatial and socioeconomic legacy of these policy persist today.	Architects were regulated under the Architects Act of 1970 which established the South African Council for Architects (SACA), which considered only category of architect.	The Architectural Profession Act of 2000 regulates professional architects, professional senior architectural technologists, professional architectural technologists and professional architectural draughtspersons.

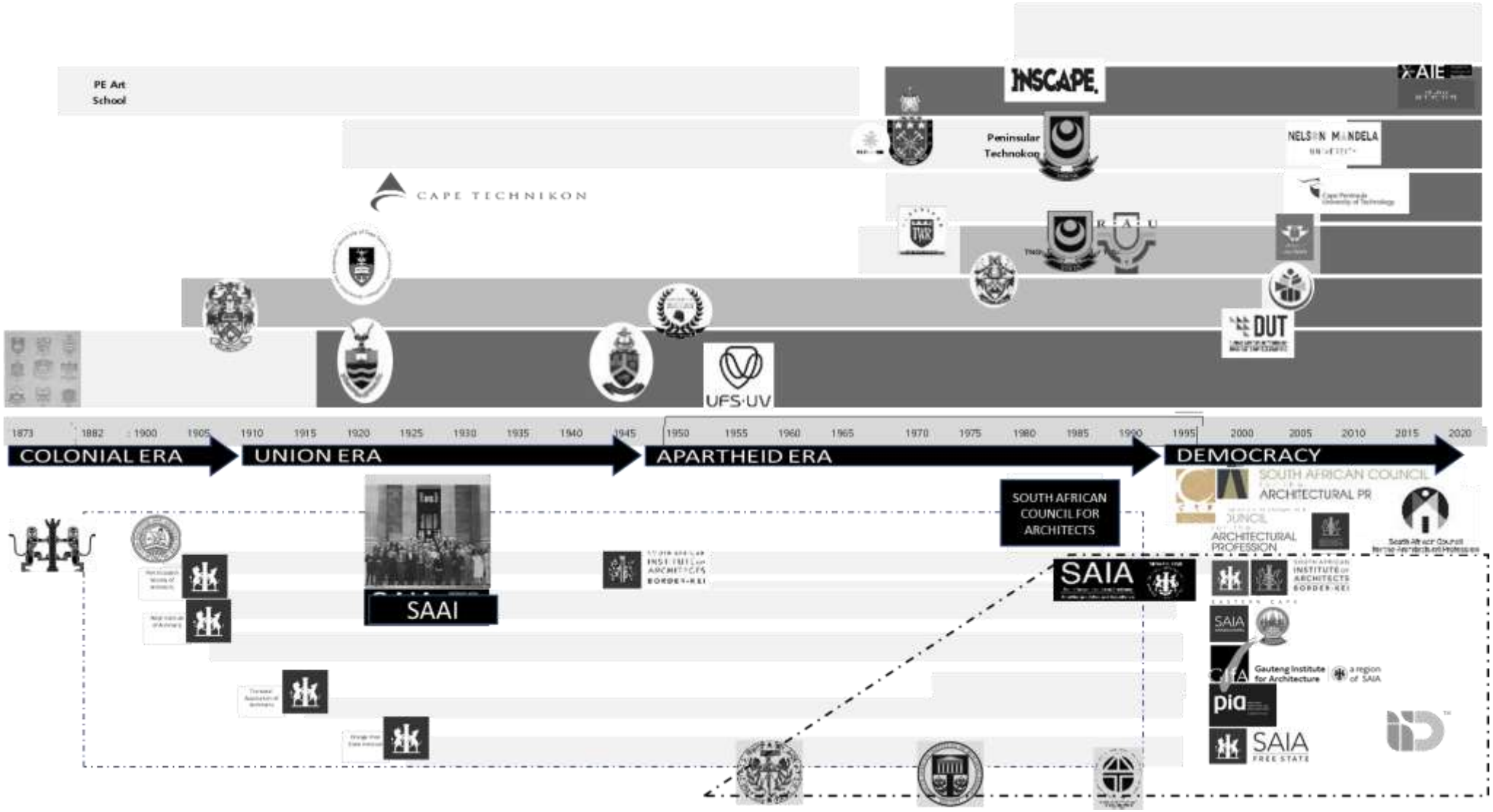


Figure 5: Historical timeline showing a transformation of institutions (ALS and VA)

3 FIELD ORIENTATION AND LITERATURE SURVEY

Chapter three seeks to establish epistemological distance from the problem by orientating the reader in the field and surveying current literature

Bourdieu's theories predict that aesthetic sensibilities or tastes, including notions of architecture and preconscious expectations regarding what structures should look like, and doxa, including ideas about how the built environment is and ought to be constituted, are shaped by history, class, trajectory and objective conditions (Bourdieu, 1990:54). This chapter sought to orientate the reader in the field (architecture profession) by introducing key actors and placing the profession in the context of social change in the early 21st century before reflecting on current perspectives on retention, attrition, and transformation through literature review.

3.1 Key Actors and their Mandates

The professional structures of government regulatory and oversight bodies, architectural learning sites, registered persons and their firms, and voluntary associations have predecessors spanning a hundred years. Despite a series of institutional transformations and restructurings, especially after 1994,[91] these institutions were and remain the gatekeepers who determined pathways to entry, erect, protect and dismantle barriers such as admission and acceptance criteria. They endorsed social hierarchies and prescribed acceptable conduct in the field. Collectively and individually, these entities were powerful actors, defining who was counted in the profession of architecture and who was 'vanished'.[92]

3.1.1 Government regulatory and oversight bodies

SACAP

SACAP, the profession's legislated registration body and regulator, asserted its principal mandate was protecting the public (SACAP, 2019b:4).[93,94] Among other responsibilities, SACAP administered a register, levied fees, invested such fees, accredited ALS,

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[91] *Illustrated as timelines in Figure 5: Historical timeline showing a transformation of institutions (ALS and VA), and discussed in further detail at 3.2 A Society and Profession in Transition: Before and After 2000 on page 62.*

[92] *See 4 A STRUCTURAL VIEW OF THE FIELD on page 95 for further analysis.*

[93] *Although SACAP and CBE's communications suggest that public protection is founding mandates arising from their raisons d'être, they may be merely discretionary. See 14 (g), (i) and (j) of Act 44.*

[94] *Public protection may be needed, given recent building failures and loss of life in South Africa and regionally (Emuze & van Eeden et al., 2017; Okunola, 2021; Timeslive, 7 May 2024; Commission of Inquiry into Usindiso Building, 2024), as well as in multiple international incidents. However, these failures are despite the existence of mature building codes and regulatory institutions, indicating that a highly regulated profession and construction industry does not fully protect the public.*

published fee scales, defined permissible work per registration category, defined and investigated improper professional conduct, advised the Minister of Public Works and Infrastructure on matters related to the profession, and liaised with the profession both directly and through the VAs (SACAP, 2019b). In 2000, the Architects' Act 35 (Republic of South Africa, 1970) was replaced by Act 44, and the governing body, the South African Council for Architects (SACA), brought into existence by the Act 35, was dissolved and replaced with SACAP (SACAP, 2021). Act 44 was promulgated in the context of the abolition of apartheid legislation, opening access to the profession to all races for the first time. In conjunction with the paradigmatic shift to include all South Africans in its remit, Act 44 introduced two important structural innovations. The first of these was the introduction of multiple, extensible registration categories, whereas prior to 2000, there had been one category, viz., 'architect'. The second structural innovation was introducing an additional overarching regulatory body, the Council for the Built Environment (CBE).

CBE

The CBE, established by the Council for the Built Environment Act 43 (Republic of South Africa, 2000[c]), coordinated six professional regulatory bodies in the built environment.[95] It aimed to ensure consistent application of council norms and guidelines throughout the built environment (CBE, n.d.[a]), encompassing:

- safeguarding public interests,
- fostering sustainability in the built and natural environments,
- promoting ongoing human resource development,
- facilitating integrated development aligned with national objectives,
- ensuring standards of health, safety, and environmental protection,
- fostering good governance in the professions,
- facilitating training coordination and standards, and
- providing a platform for professional dialogue.

3.1.2 Architectural Learning Sites (ALS)

As will be shown later,[96] by 2000 the vast majority of RPs entered the register based on having first acquired one or more credentials available through one of Southern Africa's ten SACAP-accredited public or one private tertiary institutions, deemed architectural learning sites (ALS). ALS offered relevant, accredited and non-accredited academic programmes leading to qualifications specifically designed to fulfil a range of foundational requirements for the profession.[97] ALS' programmes were regularly accredited by SACAP on curriculum, pedagogic approach, and assessment practises and their alignment to the National Qualifications Framework (NQF), as amended, ten outcomes, ten competencies, and the Identification of Work (IdoW) matrix (SACAP, n.d.[c]).

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[95] *Namely: Engineering Council of South Africa (ECSA), South African Council for the Architectural Profession (SACAP), South African Council for the Landscaping Architectural Profession (SACLAP), South African Council for the Property Valuers Profession (SACPVP), South African Council for the Quantity Surveying Profession (SAPQSP), and South African Council for Project and Construction Management Professions (SACPCMP)(CBE, n.d.)*.

[96] *In 4.1 Quantitative View of the Pipeline on 95*.

[97] *See Appendix B – validated qualifications in 2019*.

3.1.3 RPs and firms

Upon graduation from ALS, APs could register with SACAP as candidates. Candidates were compelled to complete a minimum of between two and three years of practical experience and complete professional practice exams (PPEs) before being permitted to register as fully-fledged professionals.[98] These requirements were nearly always achieved by entering the professional field after graduation as an employee since requirements were most readily met in the context of established practices. In particular, candidates were required to record their work exposure in Monthly Training Records (MTRs) to be formally signed off by mentors, who were required to be registered persons (RPs). Furthermore, the range of experiences required included project and office management, design and design documentation, construction documents and contract administration, which implied access to work (SACAP, 2014[b]). Municipal plans were required to be submitted under the auspices of RPs, and according to the National Building Regulations and Building Standards Act 103 (Republic of South Africa, 1977), approval from local authorities was required before any additions, alterations, or new structures were permitted to commence. This meant that until full registration was achieved, APs relied on RPs to supervise and endorse their work. Therefore, architecture firms played a pivotal role in supporting the transition from the academic preparatory phase into the workplace and providing ongoing employment opportunities.

3.1.4 Voluntary associations

Voluntary Associations (VAs) were discretionary professional interest groups, some of which were recognised by SACAP.[99] These bodies endeavoured to keep members abreast of issues of professional interest, shared experiences, facilitated mentorship, reached out to communities, particularly schools, collaborated, coordinated, and lobbied for the profession and its professional interests. VAs hosted and validated continuing professional development (CPD) programmes, which were required to maintain professional status. VAs had their origins in various regional institutes, of which Cape Institute for Architects, Port Elizabeth Society of Architects, and Natal Institute of Architects date back to at least the early 20th century, as shown in *Figure 5*.Figure 5: Historical timeline showing a transformation of institutions (ALS and VA)[100] The first national body was established in 1927 (South African Architectural Record,1927) when the individual professional institutes and associations of the colonies united to form the Institute of South African Architects (ISAA). Enabled by the promulgation of Act 44, some VAs that had existed in the periphery before 1994 moved into the recognised ambit of the profession.[101] In due course, SAIA was relaunched (SAIA, 2015), another VA was newly recognised,[102] and a further two were amalgamated.[103]

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[98] *As shown in Table 2: Registration requirements (source: SACAP, 2019c) on page 22.*

[99] *SACAP - recognised voluntary associations (VAs) of 2019 are tabulated in Appendix C – professional interest groups.*

[100] *Figure 5: Historical timeline showing a transformation of institutions (ALS and VA) on page 58.*

[101] *Namely, the South African Institute of Architectural Technologists, the South African Institute of Draughtsmen, and the South African Institute of Building Design.*

[102] *Namely, Freedom Architecture Consulting Empowerment was first recognised in 2016.*

[103] *Northern Cape Region of the South African Institute of Architects merged with the Free State Institute of Architects.*

From 1994, when the first democratic elections were held, to 2000, when Act 44 was promulgated, the country's inherited institutions remained largely intact (Viruly, 2009:2), and many of the key actors remained in place, but only provisionally and subject to critical review and revision.

3.2 A Society and Profession in Transition: Before and After 2000

The preceding section showed that by the onset of the 21st century, organised institutional structures of the architecture profession in South Africa were mostly already constituted in some form through a history dating back through the previous century. In this section, the tabula rasa of indigenous work and ways of thinking, knowing and producing the built environment brought about through successive dispensations preceding the 1994 democratic elections, are outlined at a high level.

3.2.1 Pre-democratic tabula rasa

Caucasian missionaries, settlers and traders arriving at coastal ports from 1497 on encountered indigenous peoples with rich and diverse vernacular place-making and building traditions in place (Schoeman, 2020; Pattrick & Minguzzi et al., 2022; Schoeman, 1998). Deeply rooted in a multiplicity of cultures and rituals and utilising local materials and construction techniques, these practises were passed down and evolved through generations. Over the next five decades, these successively settling/ colonising/ uniting/ and segregating/ peoples expanded their exploits inland, importing methods, logics, logistics, ethics, and aesthetics from Europe, which infused local building traditions. Indigenous communities were gradually - and then, especially between ~1890 and ~1970, with increasing intensity - displaced to marginal lands to make way for various colonial, union and apartheid enterprises, such as mining, agriculture, commerce, manufacturing and political control. In successive eras,[104] these regimes imposed new paradigms of property, ownership, boundary, nation-state, and gerrymandering (Yanou, 2009).

Indigenous building traditions, characterised by their close ties to local contexts, were fused (Jekot, 2017), disrupted, diluted, erased (Coetzer, 2004) or replaced (Demissie, 2012). In many cases, the places, spaces, structures[105] and customs were moderated or supplanted by these encounters or disappeared naturally with the passage of time or in cultural rituals (Becker, 1998). Despite,I submit, that the modalities of production and operation, the transmission of know-how, and ways of knowing were largely replaced and lost to practice, some records of these traditions survive in libraries and archives and in scholarly interest (Moremoholo, 2021; Van Vuuren, 2007; Frescura, 1981, 1989).

Some contemporary academics and thought leaders advocate for a shift toward ecologically less impactful technologies (Miller & Pointer, 2019; Bosman & Van Der

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[104] *1.) The colonial era began with the trading station establishment in 1652 and significantly intensified after the Berlin Conference of 1884–1885; 2.) The union era commenced in 1910, when the Cape Colony, Natal, the Transvaal, and the Orange River Colony were unified into a self-governing dominion of the British Empire. This centralisation marked a significant step toward South Africa's future independence. 3.) The apartheid era began in 1948 when the National Party, which intensified institutionalised racial segregation and discrimination, came to power. 4.) The democratic era commenced in 1994 when the first inclusive elections were held.*

[105] *Structures were also customarily destroyed (Becker, 1998).*

Westhuizen, 2014; Pickerill, 2015). This approach could resonate with historical indigenous building practices (Nguyen & Truong et al., 2019; Coetzer, 2021). However, popular calls demand the eradication of older technē. These are often regarded as inferior and marginalizing, with their valorisation met with scepticism (Abdoll & Barberton, 2014). In place of precolonial vernacular architecture, building technologies characterised by free-standing, single-story masonry and pressed sheet-metal structures became widespread during the late apartheid era (Frescura, 1989). This ubiquity was attributable to:

- relative affordability, even for cash-build markets accessible to the 'unbanked', predominantly black^ portion of the populace,
- accessibility, vis-à-vis an ample geographical distribution of skills and materials to implement,
- a versatility as technologies and techniques could applied to myriad uses and extendable, and
- executable by owner and 'bakkie-build' micro-enterprises.[106]

Augmenting this imaginary of the late 20th century built-environment landscape, is that of the state housing programmes whose forms were replicated across the townships[107] which relegated black^ people to various iterations of 'matchbox'-style housing from the 1950s (Calderwood, 1964; Japha, 1998; Le Roux, 2019). Despite associations with the apartheid era and widespread academic criticism regarding shortcomings associated with such state housing typologies (Huchzermeyer & Karam, 2016; Low, 2005; Harris & Giles 2003:167), 'the RDP'[108] survived the transition and emerged in the democratic era in South Africa's built landscape as a symbol of equity and state patronage for the marginalised (Dugard, 2020; Sekoboto & Landman, 2019).[109]

It has been argued that architecture and the built environment play a key role in people's self-identity and belonging and that this is contingent upon where you find yourself placed in the world (Glusac, 2015; Archer, 2005; Till, 2013; Massey, 2008; bell hooks, 2008). From the foregoing history doxa emerged, related to roles and potentials, what could be built, what should be built, how it might be produced and what it would look like. Segregation became "the spatial imprint of our cities and the deep structure of our imagination and memories" (De Kok, 1998:70). Except for the privileged minority, the

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[106] *Bakkie-builders are small-scale contractors who undertake construction work.*

[107] *Whereas internationally the term 'township' has administrative or geographic significance, in South Africa it is an enduring colloquial signifier referring to the underdeveloped, racially segregated urban areas that were established during the apartheid era, designated for black^ populations. Townships were routinely located on the periphery of towns and cities and were characterised by inadequate infrastructure and services, poor living conditions, and limited economic opportunities.*

[108] *The Reconstruction and Development Programme (RDP) was a South African socio-economic policy implemented by the government of President Nelson Mandela in 1994, which included the implementation of state-funded houses called 'RDP' houses. Although the programme was modified slightly and called 'Breaking New Ground' (BNG), the colloquialism 'RDP' has been attached to this new iteration except among academics, technocrats, and policymakers.*

[109] *Whereas popular criticism is generally targeted at the quality of construction (see, for example (Amoah & Van Schalkwyk et al., 2022; Gabula, 2012), the suggestion that the advisability of the typology was accepted doxa in the popular imaginary.*

necessities of the built environment were addressed through the property market that recycled existing assets, new stock driven by developers and speculators, a do-it-yourself ethic, or through the state-administered technocratic initiatives (Minkley, 1998). This positioned citizens by and large as customers of private sector property brokers and developers, self-sufficient survivalists, or beneficiaries, respectively. Apart from servicing corporate clients, wealthy private clients, private sector property brokers and developers, and playing the role of professional service provider in state tenders[110] , by ~2000, architects were frequently absent from the forefront of production and reproduction of the built environment, and playing less and less the role of principal-agent and leader (Prisgrove,1998; SAIA, 1999; SAIA, 2023[b]:91).

3.2.2 ALS rise to prominence

Historically, entry into the field was not always via ALS. A few part-time drafting and architectural drawing and appreciation courses were in existence in the early 1900s (Bryer, 1977:5). Some white individuals had access to formal study abroad (Mouton & Louw et al, 2013:129), but it was the establishment of ALS at Wits in 1922, and the University of Cape Town in 1923 that signalled a gradual shift away from apprenticeship only, to qualification plus apprenticeship, as the predominant entry route into the field. Over the apartheid era, a few new universities, and later, technikons with architecture- and related studies were introduced.[111] These developments saw an increase in the number of graduates produced, and a professional stratification emerged, associated with institution type. Technikons provided technical and vocational training,[112] which prepared individuals to work as subordinates in architects' firms or on small buildings.[113] Young-Pugh described the pre-democracy situation thus~

> *Generally universities train architects and encourage critical design-based examination of architectural production, and technikons follow a vocational curriculum in the training of draftspersons, architectural technologists, and senior technologists. Their architectural departments were established with the objective of supplying production workforce to architectural offices and have traditionally focused on detailed design, documentation, and delivery.*
>
> (Young-Pugh, 2005:35)

The establishment of the South African Native College in 1916,[114] began the formalised separation of education provision based on race, foreshadowing official apartheid (Mabokela, 1997).[115] The Extension of University Education Act 45 (O'Malley, n.d.) criminalised the registration of black^ students at formerly open universities.

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[110] *Discussed in detail in 4.5 Economic Capital on page 137.*

[111] *See Figure 5: Historical timeline showing a transformation of institutions (ALS and VA) on page 58.*

[112] *Technikons were historically barred from conferring master's or doctoral degrees, contributing to their lower status (Department of Education, 2001:36)*

[113] *Architects were reserved work over 500 square meters prior to the IdoW through Reservation of Work legislation.*

[114] *Now called the University of Fort Hare.*

[115] *See Figure 5: Historical timeline showing a transformation of institutions (ALS and VA) on page 58.*

From then until 1983, strict segregation was exercised in South Africa's higher education institutions. With rare exceptions, such as the ML Sultan Technical College, which offered architectural draughting courses to its predominantly Indian students from 1956, black^ institutions of higher learning did not offer architecture or engineering studies (Jansen, 2023:24). The Universities Amendment Act 24 (Republic of South Africa, 1968) allowed for the admission of small quotas of black students into white universities. In 1977, Wits' architectural school recorded student enrolment figures of one black, one Japanese, one Indian, and 163 caucasians. The situation rankled some~

> *10 years ago the total enrolment of students in the Faculty of Architecture consisted of European students and also a few Asiatic and Coloured students. But the matter as to what colour or race the faculty students are composed of is vitally important to the development and work of the faculty and of the university itself and, above all, to the achievement of their full academic potentialities. For until April 1959, the University of the Witwatersrand was free to determine for itself such fundamental issues as who should teach and who should be taught and it was one of four South African universities that exercised these rights by admitting anyone on merit and on merit only. Since then it has been statutorily prevented from doing so under legislation ironically termed the Extension of University Education Act, which debars all but people with white skins from attendance at 'white' universities. But since then, too, the University of the Witwatersrand has used every possible means consistent with academic propriety to regain its privilege to admit persons of merit irrespective of the colour of their skins. In a referendum last year, it signified its overwhelming support for its doors to be reopened to students of all races and it requested the Government to investigate ways and means of removing restrictions on the admission of brown and black students 'so that the only criteria to be applied when deciding who was to be admitted would be the academic ones'. It is true that since the passing of the Extension of University Education Act in 1959, ministerial permission for Asiatics, Coloureds and Blacks to be enrolled as students in the faculty of architecture has in fact never been withheld. But the fact that such permission is necessary... has had a deleterious effect on the university academically as well as in every other respect.*
>
> (Bryer, 1977:35-36)

Thus, in the apartheid era, tertiary academic institutions were starkly segregated according to race, with near comprehensive exclusion of blacks^ from architecture and related studies. The status accorded universities and technikons produced a further class faction among white practitioners, distinguishing architects from technologists (Asmal 2002:4-6, Luescher & Mncwango et al., 2023:20). Black^ practitioners were also precluded from practising as architects during apartheid (The Archive of Design and Architecture, 2023). A small number, such as Phill Mashabane and Luyanda Mpahlwa retreated into exile[116] to pursue their dreams of being architects (D5 Magazine, n.d.; Lee, 1 December 2023), returning after the democratic elections to set up celebrated practices. Architects under apartheid and immediately thereafter were, therefore, overwhelmingly white. Some architects, particularly those affiliated with the Afrikaner Broederbond, endorsed apartheid, utilising their social capital to secure lucrative commissions (Brink, 2012). Whether willingly, reluctantly or insouciantly, practitioners were compelled to conform to apartheid's stipulations, for example, by creating segregated designs (Brink, 2012). Views on the culpability of architects in concretising segregation varied (Peters, 2004). A minority, including members of 'Architects Against Apartheid', actively opposed apartheid and rallied, unsuccessfully, to mount a collective action challenge against the system through an ISAA meeting (Brink, 2012).

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[116] *Joined by a small number of white activists such as Alan Lipman and Lionel 'Rusty' Bernstein.*

In these whites-only apartheid firms, roles tended to be hierarchical, with a relative status understood from both within and outside the profession. Principals, as employers, were more highly regarded than salaried individuals (Lewis, 1953:14). Status broadly increased from draughtsperson to technologist to architect, with increasing prestige associated with greater experience, broadly correlated with increasing age. Only architects could join ISAA, and even these membership numbers were capped (Lewis, 1953:14).[117] Before ~2000 little opportunity was expected to improve status. Exceptions were by naturally and gradually advancing seniority through accumulated experience (Cuff, 1992:140), by peer recognition, or through formal training (Bryer, 1977:7). The latter path to career advancement was rare before an ethos of lifelong learning was popularised.[118]

In 1994, the abolition of apartheid opened institutional doors to all races. The newly formed government held that education would be an instrument for societal transformation (Mouton & Louw et al., 2013:127, Luescher & Mncwango et al., 2023:xii). In 2004, South Africa initiated a transformation of its higher education system by consolidating smaller universities and various other tertiary academic institutions into larger entities, redesignated 'universities' (Asmal, 2002; Baloyi & Naidoo, 2016:19). This restructuring introduced 'comprehensive universities'; a new institutional category aimed at facilitating the amalgamation of certain universities with former technikons (Luescher & Mncwango et al., 2023:20). Comprehensive universities offered a diverse array of degrees, diplomas, and certificates, contributing to the stated objective of broadening access to tertiary education throughout the country and dismantling segregationist apartheid practises (Mouton & Louw et al, 2013; Baloyi & Naidoo, 2016:26).[119] Although no literature was discovered on the effect on architecture schools specifically, this bold reorganisation, effected between 2000 to 2004, disrupted formal academic programmes (Mabokela & Wei, 2007), at least from an institutional structural perspective, before settling into a period of relative stability (Luescher & Mncwango et al., 2023).

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[117] According to Lewis, the maximum proportions of salaried staff in ISAA membership was defined, and "In Law the 'Salaried' Member is as much a Registered Architect or an Enrolled Quantity Surveyor as is the 'Practicing' Member. But administratively the Salaried Member accepts the position that he is a sort of genteel 'second-class citizen'. He may not vote on any matter affecting … professional practice; he may only perform remunerative work for his immediate employer" (1953:14).

[118] According to Young-Pugh, "Fundamental to this reshaping of the educational environment is the government's stated commitment to improve access to tertiary learning in an environment of academic flexibility and mobility, where learning is seen as 'footloose and lifelong'. The redefinition of technikons as 'universities of technology' focused on producing 'thinking hands' rather than 'hands without brains' is indicative of a new educational culture, the aim of which is to create a vocationally orientated and yet skilled and knowledgeable workforce" (2005:36).

[119] Although the stated rationale for South Africa's mergers was primarily structural transformation to advance sociopolitical and justice ends (Asmal, 2002), a 'wave' of university mergers swept across Europe contemporaneously, in France, Wales, Finland, Denmark, Belgium, Germany, and Sweden, ostensibly with other rationales, such as competitiveness, research quality, and international reputation (Labi, 2011).

3.2.3 Monopolising tendencies before ~2000

Efforts by the architecture profession in Africa's southernmost region to formalise and distinguish itself date back to at least the Architects Act 10 (Natal Colony, 1902).[120] The intent to foreclose and create exclusivity was evident in the Transvaal Architects' Private Act 39 (Transvaal Colony, 1909).[121] Individual efforts of colonies to monopolise the field were carried forward into the union era. The impetus to restrict and regulate the use of the professional title became a national concern via the Architects and Quantity Surveyors' (Private) Act 18 of 1927 (The South African Architectural Record, 1927), and these strategies were renewed in the Architects' Act 35 of 1970 (Republic of South Africa, 1970). Architects thereby maintained legal endorsement throughout the 20th century for both reservation of title and reservation of work but struggled to enforce it (Lewis, 1953; Prisgrove,1998).[122,123]

From 1927 until the South African Council for Architects (SACA) was established via the Architects' Act 35 of 1970 (Republic of South Africa, 1970), architects largely regulated themselves, through ISAA. The establishment of SACA paved the way for state participation in regulating the profession. Initially, membership to the institute was a requirement, but this provision was repealed or fell into disuse at an unknown date between 1987 and 2000. Over the subsequent decades, ISAA gradually lost its centrality and gravitas within the profession. In 1996, ISAA was substituted with SAIA.

The 1970 Architects' Act 35, as amended (Republic of South Africa, 1970), was technically silent on race and used exclusively male-gendered language. ISAA claimed not to have a 'colour bar' (Architectural Association, November-December 1973). However, this claim ignores that the structural exclusion of demographic groups in work

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[120] *Which sought to formalise an Institute for "the promotion and advancement of Architectural Art and Practice, and its Allied Arts, Sciences and Crafts, and the maintenance of the honor [sic] and the interests of the Profession of Architecture, and to do any other lawful acts or things which may be considered necessary to attain any or all of the above objects" (Natal Colony, 1902).*

[121] *Which included the establishment of a register, the right to prescribe members' conduct, the restriction of title, and the penalty of infringement.*

[122] *"The Institute was assured by eminent lawyers of their day that Section 3 of the Act, as worded, would effectively protect the title 'Architect'; in other words, effectively stop persons who were not registered as Architects from posing as such. Experience has shown that legal draughtsmanship does not always or necessarily produce the results anticipated. The identical Section 3 has been read and interpreted in different ways by different Magistrates and Prosecutors in different parts of South Africa" (Lewis, 1953: 9) and "Despite the fact that the Architect's Scale of Fees has been established and accepted for many years, if not universally, certainly in the English-speaking world, the enabling power in the South African Architects' Act provides for the framing of a regulation 'governing the fees chargeable by Architects and Quantity Surveyors in the absence of special agreement'. Our Courts have held that the word 'chargeable' is ambiguous vis-a-vis the public: although the Architect is statutorily entitled to 'charge' what is a customary Scale of Fees, he is not necessarily entitled to recover such fees. The wording should have been something like this: 'chargeable and recoverable'" (Lewis, 1953:10) and "An overwhelming majority opinion of Architects and Quantity Surveyors agreed that the type of qualification agreed upon would produce keener and better tenders, in the interests of the Building Owner. A minority opinion was adamant that competitive tenders could be and were still being obtained, without 'qualification'" (Lewis, 1953:19).*

[123] *For example, according to the SAIA president: "The protection of the profession from a rapacious operating environment is a primary concern. We are moving toward the enforcement of the work reservation regulations in all areas...." (Prisgrove, 1998).*

spaces was nevertheless achieved through broader apartheid structures, advanced through instruments such as the Group Areas Act 41 of 1950 (Mabin, 1992), the University Act 61 of 1955 (Mabokela, 1997), and the Native Building Workers Act 27 of 1951[124] (O'Malley, n.d.) which institutionalised segregation, the dispossession of land and the means of production, and severely curtailed work prospects for black^ APs. These legislative strictures entrenched enduring spatial development patterns (Ramutsindela, 2013) and embedded a particular economic structure, which informed property rights and property market institutional frameworks which persisted after 1994 (Viruly:2009:4).

South Africa's 1994 elections marked a significant turning point in its history, where the previously dominating white class yielded its political hegemony, establishing a broader context of social, cultural, and symbolic transformation. These shifts, however, did not immediately translate into economic equality (McKeever, 2024; Mpofu-Walsh, 2021). Despite the political authority and social ascendance of the black majority post-1994, as well as the emergence of a small black^ elite (Freund, 2007), economic resources largely remained in the control of white people (Freund & Padayachee, 2021). Whereas prior to 2000, there had been one 'recognised' professional registration category in the architecture field, Act 44 introduced multiple and extensible registration categories, which was unusual among anglophone territories.[125] It stipulated that registration with the South African Council for the Architectural Profession (SACAP) is a legal requirement to practise as a 'professional architect', 'senior architectural technologist', 'architectural technologist', or 'professional architectural draftsperson', and the corresponding candidate enrolment categories.[126]

This structural innovation expanded the opportunity for registration to individuals who had either historically and/ or structurally been prevented from participation during the apartheid era and provided a scaffolded means for formal advancement, or 'articulation', through the profession's ranks. Although Act 44 does not articulate it as one of its goals, it is widely understood to have aimed tacitly to democratise entry and advancement via the introduction of multiple professional categories applicable to historically marginalised and excluded groups (SACAP, 2010:8; Young-Pugh, 2013:35-36). Though not necessarily explicitly stated, the expanded categories were expected to boost numbers of registrants and fee revenues to contribute to inclusion and transformation and, thereby, to challenge the monopolising tendencies of the profession.

3.2.4 The rise of the consultant and the service provider

In the middle of the apartheid era, central government and provincial public works maintained extensive in-house productive capacity, with resident architects and engineers executing routine programmes for the delivery of schools and clinics in provincial government and police and military facilities in central government. According to a key informant, external professional consultants were engaged to deliver large,

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[124] The Native Building Workers Act 27 of 1951 prohibited "Africans from performing skilled work on buildings in urban areas except in the segregated townships".

[125] Legislation in Ireland (Royal Institute of Architects of Ireland, 2007); Australia (Architects Registration Boards, 2023); United Kingdom (Architects Registration Board, n.d.); Aotearoa New Zealand; and most U.S States (NCARB, 2024) license or register one category, viz. 'architect'.

[126] Although Act 44 was promulgated in 2000, compulsory registration came into effect only in July 2006 (Emmet, 2006:4).

complex projects, such as hospitals (Artefacts, n.d.[b]) and the homeland civic infrastructure (Hussey, 17 June 2024). The model of outsourcing professional services was a strategy which the public works had already initiated in the 1980s, under the neoliberal paradigm of New Public Management generally gaining traction in public service internationally and in South Africa (Hope, 2001; Molobela & Uwizeyimana, 2023).

After the 1994 elections, aligning with new provincial boundaries and revised mandates, South Africa revised its public works department, incorporating the former structures and absorbing staff from various homeland structures as well as extant public servants and officials from government departments, such as public works departments, per a negotiated sunset clause (Freund & Padayachee, 1998). Between 1994 and 2001, South Africa's civil service workforce shrank from 1.2 million to just over 1 million, leading to a reduction in capacity in public works and a need to outsource professional services (CIDB, 2004:10). By 2001, nearly a quarter of the government's procurement budget was allocated to consultants offering ICT, policy guidance, and project management services (CIDB, 2004:10). This provided structural opportunity for built environment professionals to serve as consultants and public works officials to act as project managers, despite widespread local and international criticism of the model (Theletsane, 2015; Matsiliza, 2012; and Shopola & Mukonza et al., 2024; Mazzucato & Collington et al., 2023).

3.3 Current Perspectives on Retention, Attrition, and Transformation

With key actors and their mandates introduced and the architecture profession and society situated in its historical context, I will now explore current perspectives on the key themes of retention, attrition, and transformation through a literature survey.

3.3.1 Student attrition, retention and transformation

There is a thriving contemporary scholarship on retention, attrition and transformation among students in higher education settings, both internationally and locally, and in the architectural field. Although scholars lamented that these areas were understudied, especially in developing countries (Letseka & Cosser et al., 2010; Branson & Whitelaw, 2023:11; Saidi & Nazier, 2011:185; Payne, 2015:30; Adendorff, 2015:2), there is a burgeoning body of relevant international and nascent local scholarship (Aljohani, 2016). Studies revealed that about 20% of students failed to complete studies due to making a poor career choice (Vergottini, 2023:52). Black^ schools in South Africa historically received significantly less career guidance and counselling, especially during the apartheid era,[127] may have contributed disproportionately to career indecision or poor course selection, and ultimately to higher attrition among these student cohorts (Vergottini, 2023:42).

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[127] *Career counselling was initially established to maintain economic power in the hands of the white minority (Vergottini, 2023:55). Even into the new dispensation, the availability of career counselling services remains limited, particularly for students from low socio-economic backgrounds, which disproportionately includes black^ students (Vergottini, 2023:54).*

High attrition among architecture students, particularly female students, was reported in Australia (Matthewson, 2015:174); the UK (Stratigakos, 2019, De Graft Johnson & Manley et al., 2007); and Nigeria (Fulani & Amole, 2016).[128]

In line with the foundational work of Ahrentzen and Anthony (1993) and Anthony (2001, 2002) on the gendered dimensions of architectural education, numerous studies have identified contemporary architectural education as being shaped by entrenched gender stereotypes (Stratigakos, 2016; Dericks & Phua, 2020) and differentiated learning approaches (Dong & Zhu, 2023; Soliman & Farag et al., 2023; Mazumdar, 2013). Feminist perspectives have offered valuable insights into the ways social dynamics subtly acknowledged, rewarded, and reinforced characteristics traditionally coded as masculine, which cumulatively conferred advantages to males over time (Heynen, 2012; Niculae, 2012: 149; Datta, 2007; Moassab, 2019). This situation was further exacerbated by the persistence of a patriarchal, western-centric architectural canon that informed both aesthetic norms and methodological practices (Niculae, 2012: 149; Feuerstein, 2019; Fraile-Garrido & Martin-Robles, 2024; Gürel & Anthony, 2006; Åberg-Wennerholm, 2017). Additionally, the underrepresentation of women and black^ individuals in architectural history contributed to a scarcity of relatable role models for many students of architecture (Niculae, 2012:149). The architectural design studio, moreover, frequently fell short in fostering an equitable and supportive environment for those who found themselves in a demographic minority within the space (Niculae, 2012:149).

The literature recorded asymmetry in retention in architecture schools based on gender and race. For example, a 2004 Commission for Architecture and the Built Environment (CABE) report found that, whilst minority ethnic students were well represented at entry to the first degree in British public schools of architecture, both in comparison to all subjects and relative to their size within the population, they failed to graduate or to pursue advanced degrees at the same rates as their counterparts (Barnes & Parry et al., 2004).

Using Bourdieu's concepts, Payne investigated how architecture education perpetuated social inequalities related to class, race, and gender, emphasising the role of cultural capital and organisational habitus in shaping students' experiences (Payne, 2015:9). Though acknowledging progress had been made; she posited that the lack of diversity in the USA architecture profession was underpinned by a failure to attract women and minorities to architecture schools. The research developed a nuanced understanding of cultural capital, suggesting that students should not simply be categorised into high- or low-cultural capital groups. Payne showed how the culture and expectations of the architecture programs students experienced impinged on their ability to adapt to the educational environment (2015:14). This finding led her to appeal to architectural educators to recognise the importance of students' cultural backgrounds and to consider curricular reforms that attracted a more diverse student population (Payne, 2015:30).

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[128] *No scholarship was discovered expressing concern on architecture student attrition in the USA, gendered or otherwise.*

Literature Generically - that is, not limited to architecture students -literature suggested that student attrition was multifactorial (Bokana, 2010) and contextual in nature (McKenna, 2013) and that the following factors were implicated:

1. **Student-centred learning environments:** Some researchers argued for student-centred learning environments to improve student engagement (Munasinghe, 2020), to reduce attrition (Tinto, 1972). Thomas (2016) argued for diverse academic spaces to address the needs of diverse student populations. McKenna (2013) cautioned that making student-centred learning environments must extend to address content, marking a shift from a prior view which held that institutions should assist students in adapting, to one in which institutions also should adapt (Tight, 2020). Hasssanpour and Utaberta et al. posited that being a good architect does not necessarily entail being a good teacher, appealing for reflection and consistency among academic staff (2013:41). Seabi and Seedat et al. (2014) reported that students at a South African university found teaching, social support, material resources and workloads factors hindered transformation.
2. **Insufficient academic preparedness:** Students entering tertiary academic programs without the necessary foundational skills tended to struggle, leading to discouragement, and a propensity to leave (Majkowski, 2014:48; Sithole & Chiyaka et al., 2017:47; Aluko & Daniel et al., 2018; Opoko & Alagbe et al.,2014). Ajjawi and Dracup (2014) found that academic failure quadrupled the likelihood of course attrition, providing an identifiable at-risk group. Vergottini (2023) found a heightened likelihood of student non-completion among first-generation students. Therefore, any measures which improved academic outcomes were likely to promote retention. Seabi and Seedat et al. (2014) posited that being an English first-language speaker conferred an advantage to students and found that white students faced barriers communicating with their multilingual counterparts.
3. **Unaddressed psychological health, socio-economic, and other risk factors**: Students who faced mental health issues, financial hardship, or other life stressors were more prone to discontinuing their studies when these factors were not properly addressed. Research indicated a prevalence of depression and suicide of over 20% (Sheldon & Simmonds-Buckley et al., 2021; Bantjes & Lochner, 2019). Gümüşburun Ayalp and Çivici (2021) found that, in Turkey, feeling academically inadequate, the unique evaluation methods, and the intensive academic schedule featured prominently as stressors particular to the architecture courses. Majkowski found financial aid was often more critical for underrepresented groups, and uncertainty in financial support was a significant barrier to continuing with studies (2014:48). Breier (2010) emphasised the pivotal role finances played in student attrition, particularly in lower socio-economic groups, which, in South Africa, remained significantly linked to race.
4. **Failure to monitor enrolled students:** Early warning systems and early intervention for students at risk, such as those identified above , provided opportunities to resolve addressable academic or personal challenges (Sithole & Chiyaka et al., 20117:49), although acceptability, ethics and costs needed consideration (Helm & Coronella, 2016).
5. **Weak sense of belonging among students**: According to the literature, a weak sense of belonging among university students was linked to various factors influencing student retention and success (Yuval-Davis, 2006). The sense of belonging was influenced by various factors such as social capital (Ahn & Davis, 2020), adjustment to the institution, identity, and experiences of marginalisation (Naidoo, 2021). A strong sense of belonging was associated with higher motivation, academic

> engagement, and achievement and, therefore, a lower likelihood of dropping out. Peer mentoring was recommended to foster an enhanced sense of community (Sithole & Chiyaka et al., 2017:51).

Tinto's seminal works on student persistence (1973, 2012) emphasised the importance of both social and academic integration in fostering student success. His framework was predicated on the ideas that both student and institution matter, that retention programmes should have been regarded as courses of action rather than sets of discrete steps (2012:4), and that although institutions could learn from each other, they are each unique. Likewise, students' goals and intentions were individual and continuously reshaped through interactions with the university's academic and social structures. Longden (2004) argued that Bourdieu's concepts of cultural capital and social reproduction provided a more relevant and insightful approach to understanding student retention than Tinto's interactionist model and applied it to studying early departure in higher education in the UK. Longden critiqued Tinto's model, which primarily focused on the interactions between students and their educational institutions and suggested that this view may not have adequately accounted for the social and cultural contexts that students encountered. For Longden, students from less affluent socio-economic backgrounds often lacked the cultural capital necessary to successfully integrate into higher education, leading to challenges in establishing a sense of belonging and, ultimately, early departure.

Transitioning from high school to university challenged many individuals (Duche-Péréz & Paredes-Quispe et al., March 2019). Salusky and Monjaras-Gaytan et al. (2024) found that developing a sense of social belonging on campus was more difficult to achieve for first-generation college students. Addo and Houle et al. (2016) showed how student debt in the USA was a large and growing problem which disproportionately affected black individuals. Research found that greater exposure to student debt in the USA was partially explained by differences in wealth, family background, postsecondary educational differences, family contributions to college, and young adults' net worth. However, it was most closely associated with the net worth of parents (Addo & Houle et al., 2016). These two findings were pertinent to this thesis for the structural reasons mentioned earlier that black^ students entering ALS were almost exclusively first-generation to enter university and generally had lower net worth parents.

African scholars recognised an interrelationship between the themes of attrition, retention, transformation and access, curriculum, and pedagogies (Botes, 2018; Le Grange, 2014:1; Berlanda, 2017; Luckan, 2016). Relevant scholarship related specifically to architectural education on these aspects included Saidi and Nazier (2011), Tayob and Hall (2019), Solis-Arias, (2020), Zewolde and Walls et al. (2020) and Vosloo (2017) on curriculum reform;[129] Janse van Rensburg (2015), Felix (2022), Olweny (2020) and Voulgarelis (2011) on pedagogical reform; Botes (2018), Adeokun and Opoko (2015) and Aluko and Adenuga et al. (2016) on selection and admissions. Concerns of high attrition and criticism that the education system was not optimal for its purpose were not unique

[129] *Including 'hidden' and null curriculum.*

to South Africa.[130] Nevertheless, the literature proposed some remedial interventions to improve student retention and foster transformation of the student body, which could be tested in local settings (Yorke & Longden, 2004). Maher and Macallister (2013) identified a combination of effective strategies that have contributed to curbing attrition and enhancing retention rates in higher education in teacher education courses in Australia by more than 10%. Their strategy included conducting interviews for each prospective student to help ensure a good fit between the student and the program, and fostering a sense of belonging and support from the outset. They appointed an Associate Dean for Pastoral Care and provided continuity of support through course coordinators to address student needs, ensuring easy access for students to academic staff for help when needed. The course offered an immersive professional experience, integral to the curriculum, for students to apply theoretical knowledge in practical settings; and provided comprehensive mentoring of new students.

Walton and Cohen (2011) related an experiment involving one-hour, one-on-one, face-to-face engagements with students early in their studies in the USA. These interactions found positive implications for students' enduring sense of belonging, as evidenced by their enhanced retention at the college, in the field and success beyond college. This intervention, based on psychological principles to counteract 'stereotype threat'[131] entailed representing social and academic adversity early in college as common and temporary. According to the theory posited, students from socially disadvantaged groups carried awareness of negative stereotypes and a history and current reality of group-based disadvantage, which gave rise to worries about belonging. The intervention was found to be effective irrespective of race and gender attributes and was replicated under controlled study conditions in a variety of settings (Brady & Cohen et al., 2020). Yeager and Walton conceded the usefulness of this technique but cautioned that such interventions should be implemented with an ethic of care and mindfulness since "social-psychological interventions rely on subtle, non-obvious forces, they can… polarize" students (2011:293). It was evident from the literature that attrition, retention, and transformation within the academic space as fields of enquiry, as well as the factors which drove them, were well-supported in current scholarship. Although there are scholars who doubted the effectiveness (Beer & Lawson, 2017) or generalisability of findings (Tinto, 2012) or pointed out the costs (Maher and Macallister, 2013), it is plausible that with its location as an object of study in the academy and convenient access to motivated academics, these topics will continue to receive attention and refinement.

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[130] According to European ministers "existing education systems and practices are unfit for the new realities of the 21st century. Other common drivers of reform include poor existing qualifications; high education dropout rates; overlong completion times; outmoded curricula; a low skills base; high graduate unemployment rates; the need to develop a knowledge economy; the necessity for more socially inclusive open access; and increase numbers in the education system" (SAQA, 2013:5).

[131] Stereotype threat, as articulated by Steele and Aronson (1995), suggests that within stigmatised groups, individuals may internalise prevalent negative stereotypes from society, leading them to inadvertently conform to these stereotypes by subsequently performing below their ability or potential.

3.3.2 Jobs vs. professions

Liminality

Literature identified that the post-graduation liminal[132] phase posed distinct challenges for new graduates entering the workforce. This period was characterised by uncertainty, identity transformation, and emotional distress, potentially affecting attrition and retention rates (Bangeni & Kapp, 2005; bell hooks, 2008; Cornell & Kessi, 2017; Kessi & Cornell, 2015). The shift from student to professional involved significant identity challenges (Watsjold & Ilgen et al., 2023) as graduates adjusted to new expectations and responsibilities. This liminal phase could evoke feelings of entrapment, hindering the formation of professional identity and heightening attrition risks, but could be leveraged to enhance learning, foster professional identity development, and encourag the formation of strong peer support networks (Crane & Abbott, 2021). Graduates who encountered systemic obstacles in job access, such as high unemployment rates, competition and insufficient mentorship opportunities, experienced amplified feelings of uncertainty and inadequacy (Watsjold & Ilgen et al., 2023).

Shannon and Zeng et al. (2014) investigated why architecture graduates did not register as architects in South Australia, finding registration rates well below those in law or medicine. Despite improvements in female graduate numbers (40%), they found a gendered dimension to the observed reluctance. Their research identified that female graduates often faced gender-related barriers, such as a lack of confidence and a male-dominated industry. Both male and female graduates struggled to secure suitable employment that satisfied the mandatory hours required for registration, that many graduates failed to see tangible benefits of registration, such as salary increases or career advancement. Additionally, firms did not inevitably feature pro-registration cultures.[133] Poon (2017) found that in Australia, male architecture graduates aged 24 or older, who pursued a postgraduate degree and spoke English at home, were more likely to secure full-time employment after graduation.

Although some academic attention had aimed at improving employability and transition into the workplace (Bonnet, 2009; Araujo & Wilson et al., 2015), studies on the post-graduation liminal phase was rare in the literature.

Attrition from jobs vs. professions

Augmenting literature on student attrition, there was also a voluminous corpus of international scholarly literature on workplace attrition, retention, and turnover in the literature, spanning over 100 years of research (Hom & Lee et al., 2017).[134] These topics

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[132] In anthropology, liminality is the quality of ambiguity or disorientation that occurs in the middle stage of a rite of passage, when participants no longer hold their pre-ritual status but have not yet begun the transition to the status they will hold when the rite is complete. For this study, liminal/liminality is defined as the periods in inflection points of the professional development pipeline (for example, between matriculating and enrolling at ALS, between graduation and registration as a candidate, and between candidature and full professional status. (See Stenner, 2013, and 4.1.1 Professional progression as a pipeline on page 95).

[133] Pro-registration would provide a supportive environment that encourages graduates to pursue registration, including features such as mentorship, financial support for registration costs, and time off for study and professional development.

[134] More than 53 000 search results using Google Scholar 2010 - 2020.

were commonly approached from the perspectives of human resource management, general management, economics, psychology, and organisational psychology, among others. As represented in *Figure 5*, this literature explored correlates (including demographic attributes) and antecedents. Studies noted differences according to demographic characteristics (for example, Borkowski & Amann et al., 2007; Simon and Müller et al., 2010).

This extensive body of knowledge was lauded for its rigour, replicability, and theoretical refinement over time (Hom & Lee et al., 2017). A host of conceptual tools and models were proposed to define and apprehend the topics of workplace attrition, retention, and turnover. Many scholars agreed that attrition and retention were dynamic and multifaceted in nature and that earlier views may not have been sufficiently nuanced (Borman & Dowling, 2008). Recent research focused on how the world of work transformed, the implications for attrition, and, using new analytical tools, how the multiple identified factors were interconnected (Allen & Bryant et al., 2010; Heavey & Holwerda et al., 2013; Singh, 2024).

Heavey and Holwerda et al. (2013) proposed an organising framework to classify the multitude of variables studied regarding collective turnover. They focused on factors most strongly related to collective turnover through their meta-analysis of 694 effect sizes drawn from 82 studies. The results indicated that two categories of collective turnover antecedents - human resource management (HRM) inducements/investments and job embeddedness signals - showed stronger and more consistent relationships with turnover compared to other categories.[135] This suggested that these two areas were crucial to addressing collective turnover. Heavey and Holwerda et al. (2013:6-7) correlated the following HRM inducements/ investments with retention:

1. **Benefits**: Offering comprehensive benefits packages, including health insurance, retirement plans, and paid time off, signalled employer commitment to employee well-being.
2. **Tangible rewards**: Offering competitive salaries, bonuses, and other financial incentives made current employment more attractive when compared to alternative job opportunities.
3. **High-commitment HR systems**: Human Resource (HR) practices such as participative decision-making and employee involvement in organizational processes fostered a supportive work environment.

[135] *The researchers' categories, drawn from meta-analysis were: Human resource management (HRM) inducements and investments, HRM expectation-enhancing practises, shared attitudes toward the job and organisation, quality of work group and supervisory relations, job alternative signals, and job embeddedness signals.*

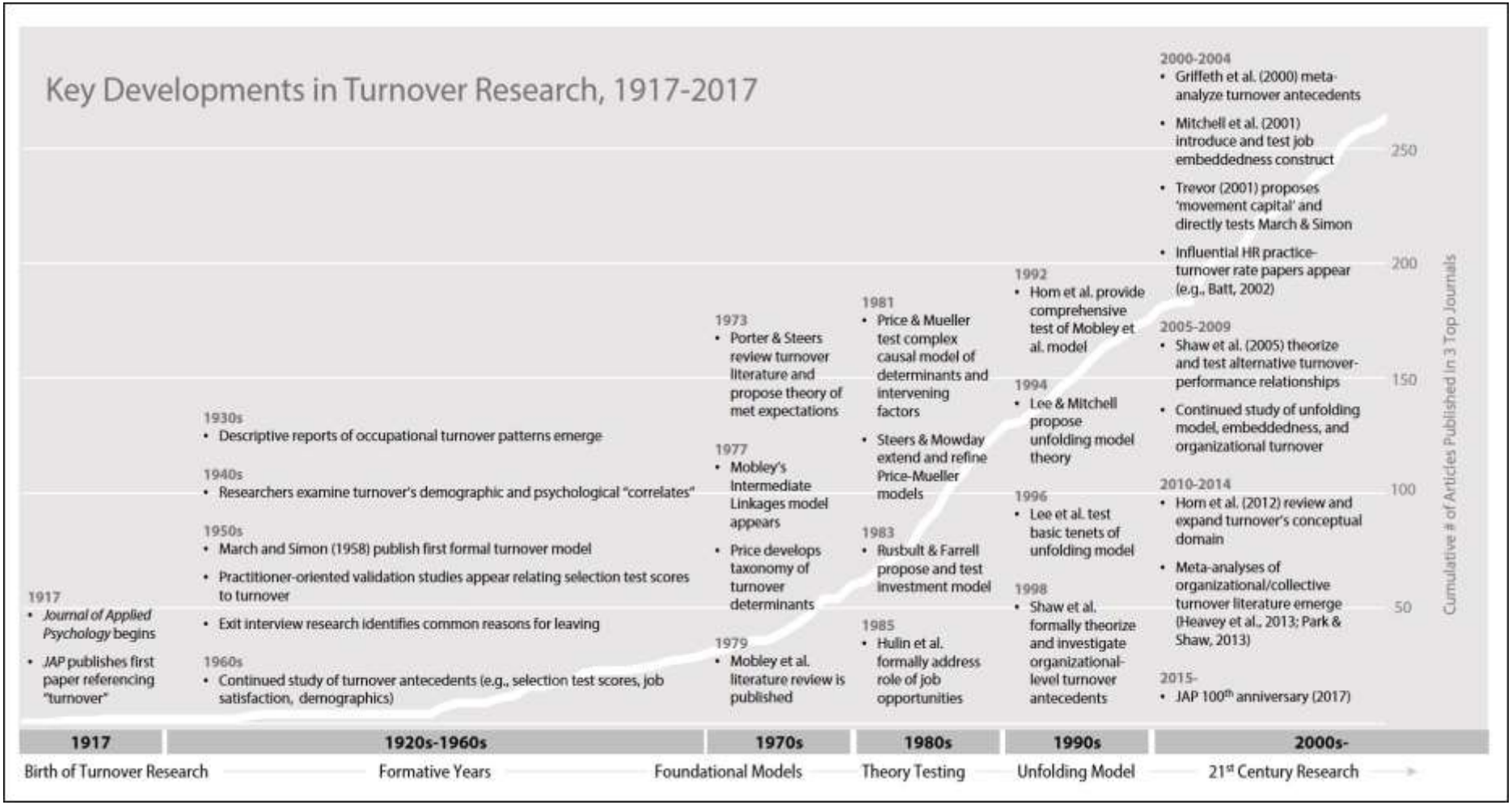


Figure 6: Key developments in Turnover research 1917 to 2017 (Source: Hom & Lee et al., 2017: permission obtained from APA)

4. **Training opportunities**: Providing training and development programs that enhanced employees' skills and career prospects, thereby increasing their value to the organisation.
5. **Internal mobility**: Creating pathways for career advancement within the organisation, such as promotions and lateral moves.
6. **Participation-enhancing work design**: Designing jobs that allowed for greater employee autonomy and discretion, such as flexible job roles and team-based work systems, led to higher job satisfaction.
7. **Staffing selectivity**: Implementing rigorous hiring practices ensured a good fit between employees and the organisation.

Job embeddedness signals are factors that reflect the degree to which employees feel connected to their jobs and organisations, which influences their likelihood of staying or leaving. Examples of job embeddedness signals identified in the research included (Heavey & Holwerda et al., 2013:13-14; Takawira, 2012):

1. **Average employee age**: Older employees generally indicated stronger ties to their organisation due to longer tenure and established relationships.
2. **Average employee tenure**: Longer average tenure within an organisation generally indicated that employees were more embedded in their roles and less likely to leave.
3. **Experience concentration**: Organisations with a higher concentration of experienced employees generally exhibited lower turnover, as these employees were often more integrated into the organisational culture and social networks.
4. **Unionisation**: The presence of unions sometimes enhanced job security and provided employees with a voice.

Retention could be enhanced by promoting job embeddedness to foster belonging (Dimri et al., 2024). Job embeddedness could be achieved through supportive work environments and fair treatment (Pandey et al., 2016); equitable financial rewards (Möller & Fernando et al., 2024), career development, recognition (Caven & Astor et al., 2016), and strong leadership (Ramachandran, 2022). Comprehensive retention policies were suggested for reducing turnover, managing labour shortages, and maintaining a stable, skilled workforce (Gupta & Singh, 2014). According to Masood (2024), retention strategies could be tailored to generational preferences. For example, millennials in their study sought work-life balance while Gen Zs[136] valued career growth and job security.

Discussion

There are important concerns regarding the direct applicability of workplace attrition/ turnover and retention literature to the present study.

Firstly, optimising for retention may sometimes be at odds with optimising for transformation. For example, Heavey and Holwerda et al. (2013:13-14) found job embeddedness was less strong among women as their family obligations were more likely to interrupt employment.

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[136] *'Gen-Z' refers to Individuals born between 1997 and 2012 (Britannica, n.d.), and therefore young APs especially at the end of the thesis study period (2000 – 2019). Such generational theory is contested as unscientific (Lyons & Kuron, 2014).*

Secondly, this literature predominantly examined attrition from specific organisations, such as educational institutions and workplaces. As highlighted by Hom and Lee et al. (2017:538) it aligned mostly to corporate or academic leadership interests. These were strategically positioned and intrinsically motivated to mitigate unwanted or costly attrition (Wallace, 2023). Contrasting this, sole practitioners and small practices could be unlikely to have dedicated human resource functions (Adendorff, 2015) and could be motivated to release staff when there was insufficient work or some interpersonal incompatibility.

Some literature suggested that loyalty increasingly tended to cohere around a professional identity, rather than an organisational identity (Anteby & Chan et al., 2016; Vosloo, 2017; Ahuja, 2018), serving retention within the broad profession. Even though loyalty to a particular employer, organisation or partnership arrangements may be weak, individuals would be inclined to leave a particular partnership or place of employment but remain in the profession. The implication of this insight is that loss from a particular organisation may be ameliorated by absorption into another place of practice, or embarking on one's own enterprise. Loyalty to the profession, coupled with perceived flexibility to move freely between practices, could yield considerable benefit to the sector as a whole, as it could permit fluid distribution of skills and talent to where it is needed, building sectoral resilience in times of economic hardship, and facilitating the transfer of know-how between organisations within the same sector. Rare research looking at both leaving jobs *and* professions found commonalities, but also different drivers for each. For example, Simon and Müller et al. (2010) found that nurses' intentions to leave their *profession* were strongly associated with personal and work-home interface factors, while intentions to leave the *organisation* were linked to structural leadership and the local context.

For the reasons cited above, it was concluded that although scholarship on attrition and retention from individual organisations may be instructive, particularly to large architecture firms with dedicated HR functions, a further focus on attrition from sectors, and in particular professional sectors, including the architecture profession, was needed.

3.3.3 Professions, architecture and attrition

Considerably less published literature addresses professional sectoral attrition compared to job/ organisational turnover. A systematic review of international literature demonstrated that attrition from the architecture profession, as with many other professions, has long been recognised as a concern in various geographic locations, and that race, gender and transformation have been prevalent themes of research focus. As with studies on retention and transformation in general, architecture research identified a multitude of variables that were shown or theorised to contribute to the retention-transformation nexus.

Multifactorial and contextual

There was implicit consensus in the literature on retention and attrition that the factors leading individuals to a decision to leave a profession are complex and multifactorial (Keen, 2010), with distinctive sectoral-specific dynamics at play (Sabin, 2011). Literature also recognised that context mattered, for example, in that, externalities such as the job market impacted the propensities to staying or leaving professions (Herrick & Takagi et al., 1983). Moreover, there seemed to be important differences in personal experiences between nation-states (Caven & Astor, 2013).

Voice and empowerment

For Bourdieu "[t]he propensity to speak politically, even in the most rudimentary way… is strictly proportionate to the sense of having the right to speak" (1984:412), which sense is often not yet developed among young graduates or workplace entrants. Workplace empowerment refers to the process of enabling employees to make decisions and take actions independently, enhancing their sense of autonomy, responsibility, and confidence. It includes elements such as decision-making authority, access to information and resources, opportunities for personal and professional growth, and an ability to voice or express oneself authentically.

Research indicated that empowerment enhanced job satisfaction, engagement, and loyalty, reducing the likelihood of leaving the field (Hackman, 1976; Sang & Ison et al., 2009). Psychological empowerment boosted well-being and commitment by giving employees a sense of impact and choice (Patrick and Thakur et al., 2024). Enwerekowe and Mangden (2019) found that equitable gender representation among Nigerian architects was enhanced by encouraging self-direction, which helped staff drive toward organisational goals, improving performance and loyalty (Mass, 2002). Employees were more likely to stay if their work felt meaningful and if leadership supported staff growth and valued their contributions (Mak & Thomas et al., 2024; Mass, 2002). Recent research among Malaysian workers suggested that millennials[137] considered empowerment a critical factor to remain in the workplace (Tan & Wider et al., 2024), indicating generational variations in workplace preferences. Cripps (2020) called for recognising and validating perspectives and aesthetics from previously silenced cultures.

Working conditions

Professional satisfaction and success for APs are dependent on the fulfilment of basic physiological and material security needs (Ariffin & Amar, 2019). These include the development of a sense of belonging and social esteem within the field (Ariffin & Amar, 2019), free of prejudice and discrimination (Möller et al., 2022; Matthewson, 2017; Daw et al., 2024), supported by opportunities for personal and professional growth, and engagement with meaningful work (Ariffin & Amar, 2019).

Research indicated that the architecture profession was notorious for normalising long hours and pressing deadlines (Cuff, 1992: 19; Niculae, 2012:144; Indhul, 2017; Riscica, 2021) enculturated in ALS (Stevens, 1998:195-200; Datta, 2007; Young, 2018; Low Key Architecture, 2020). These working conditions contributed to ill health (Alhola & Polo-Kantola, 2007), poor performance (King & Mobley et al., 2019; Patrick & Lee et al., 2017), and burnout, which produced emotional exhaustion and diminished effectiveness (Nguyen & Kremer, 2022; Madigan & Kim, 2021). Burnout was linked to job dissatisfaction and higher resignation rates (Maslach & Schaufeli et al., 2001). Virtanen and Ferrie et al. (2011) and Sang and Dainty et al. (2007) found that long working hours was a risk factor for occupational stress, anxiety, and depression, particularly among women. Perceived Organizational Support (POS) enhanced engagement, job satisfaction, and commitment by shaping employees' perceptions of how much their organisation valued them and

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[137] *'Millennials' refers to Individuals born between 1981 and 1996 (Britannica, n.d.), and therefore young APs, especially at the beginning of the thesis study period (2000 to 2019). Such generational theory is contested as unscientific (Lyons & Kuron, 2014).*

cared for their well-being (Umbara & Dwarawati, 2024), with supervisor support being a key factor (Umbara & Dwarawati, 2024). In the educational and IT sectors, POS boosted performance and commitment, driving productivity and retention (Wang, 2024; Philip, 2024). Recognition in the workplace enhanced career progression and satisfaction (Takawira, 2012) and assisted in reconciling work and familial responsibilities (Mesimo-Ogunsanya, 2017).

Based on her survey of American female architectural engineering graduates, Keen (2010) recommended offering alternate working arrangements to better accommodate family responsibilities, developing mentoring programs to support female employees in their career progression, developing programs to discuss gendered issues as they were encountered during their career progression, and promoting and assisting women to re-enter the workplace after voluntary breaks. However, these recommendations may be susceptible to the criticism that they may lack a specific problem owner, which may make them wicked in nature (Brown & Harris et al., 2010:6).

Professional development, clear pathways

Clear career progression pathways and continuing professional development were thought to reduce attrition and enhance retention (Möller & Fernando et al., 2024) and provided valuable self-esteem, professional and personal growth opportunities (Ariffin & Amar, 2019). Professionals were more likely to stay in their roles if they felt their work aligned with their values and contributed positively to society (Mak & Thomas et al., 2024). A recent study indicated that employee development and career advancement requirements could be a more important factor for retention among younger employees than older ones (Shiri & El-Metwally, 2023).

Social capital

Social networks influenced individuals' career trajectories. These networks impacted architecture professionals by providing support and recognition or, conversely, by contributing to isolation and demotivation. Research indicated that insufficient support within networks led to higher attrition, particularly among underrepresented groups, for instance, female architects (Möller & Fernando et al., 2024:3-13; Afolabi & Akinola, 2021). Social networks facilitated dialogues that refined discourse and provided platforms for expression and development of voice and bolstered professional commitment (Gabbriellini & Torroni, 2013).[138]

While social networks could amplify community and support within the profession, they could also present challenges that may aggravate attrition. Ariffin and Amar (2019) found that the efficacy of social networks was contingent upon the quality of interactions and inclusivity.

Scholars found mentors provided technical, emotional and/ or psychological support for newcomers to navigate their professional journeys, providing guidance on becoming contributing members of their fields (Allen & Eby et al., 2004). Mentors and role models helped navigate challenges and fulfilled social needs (Ariffin & Amar, 2019), while

[138] *Refer to Voice and empowerment on page 77.*

effective leaders fostered growth and well-being, reducing dissatisfaction (Ariffin & Amar, 2019). Role models, especially those with race- or gender- concordance, could significantly influence career choices, professional development and success (Lockwood, 2006).

Social networks illuminated discrepancies in fulfilling fundamental needs, resulting in dissatisfaction and heightened turnover where professionals perceived their essential needs for security and advancement were unfulfilled (Ariffin & Amar, 2019). Additionally, these networks could introduce biases and distort retention by influencing who remained or departed based on social dynamics. They affected professional identity formation. Consequently, while advantageous, social networks must be well-constituted to avert these potential drawbacks and foster effective retention. This too, is susceptible to the concern that there is no obvious problem owner (Brown & Harris et al., 2010:6).

Fit: identity, values, abilities and challenges

Mak and Thomas et al. (2024) found that misalignment between intrinsic motivations and career demands exacerbated workplace dissatisfaction. Architectural practitioners who were assigned appropriately challenging work (Ariffin & Amar, 2019; Patrick & Thakur et al., 2024)[139] that matched their abilities (Adeokun & Opoko, 2015) and that was congruent with their value systems and personalities (Möller & Fernando et al., 2024; Sang & Ison et al., 2009; Kahn, 1990) were more likely to feel engaged and motivated. Satisfaction of implementing projects offset lower monetary rewards experienced in architecture compared with other professions (Caven, 2008:906; Sang & Ison et al., 2009).

Thus, literature reviewed indicated that although multifactorial and contextual, voice and empowerment, good working conditions, professional development with clear pathways, and a fit with identity, values, abilities and challenges, could plausibly lead to higher job satisfaction and retention rates within a workplace and a field. These themes were carried through to the survey design.

3.3.4 Architecture, gender and race

Some notable industry reports

The National Council of Architectural Registration Boards (NCARB) published an annual report, "*NCARB by the Numbers*" (NCARB, 2019), outlining findings on architectural licensure in the USA. Over several years, the data collected were able to show dynamics of attrition, such as determining the point people drop out from pursuing licensure, in relation to their race and gender characteristics. A key finding was that minority candidates were more likely to stop pursuing a license. In 2020, NCARB and NOMA conducted a survey to collect quantitative data among USA architects. Findings were published in a series of reports prefaced "*Baseline on Belonging: Equity, Diversity, and Inclusion in Architecture Licensing*".[140] According to NCARB 'belonging' referred

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[139] *That is, with a good match between demand and abilities: not too easy, not too hard.*

[140] *The reports were: Experience Report; Examination Report; Education Report; Firm Culture & Career Development Report; Compiled Report & Action Plan.*

straightforwardly to "the literal feeling of belonging in the architecture community or profession".[141] The response rate was good.[142] Reporting was disaggregated per race and gender to obtain quantitative insight into experience, examination, education, firm culture, and career development/ employment. This NCARB and NOMA study was influential in the survey design.[143]

Since 2010, the Architects' Council of Europe (ACE) has collected data on the sector across Europe and made it publicly accessible through its observatory (ACE Observatory, 2022). Changes in the make-up of gender, age, focus areas of the architecture profession and much about the contextual environment (number of architects per capita, market size etc.) were recorded and became the basis of regular sector reports. The 2022 report noted that the percentage of women in the architecture profession had grown substantially over the preceding decade, rising from 36% in 2012 to 46% in 2022. In countries such as Croatia, Finland, Greece, Italy, Latvia, Lithuania, Romania, and Sweden, female architects had come to form the majority. Around one per cent of architects consistently identified as non-binary or chose not to specify their gender (Mirza & Nacey, 2022:13). Race was not addressed.

Parlour digitally published the findings of the "*Equity and Diversity Report*" (Stead & Willis et al., 2013) and two technical surveys (Clark & Roan et al., 2012a, 2012b). The latter featured a novel statistical review of women's participation in the Australian architecture profession supported by visual research undertaken by Stead and ethnographic fieldwork by Matthewson (ArchitectureAU, 2014).

Gender dimensions

Attrition and transformation have been intensively studied from a gender perspective (for example, Clark, 2019; Möller & Dupré et al., 2022; De Graft-Johnson & Manley et al., 2003 & 2005; Burns, 2011 & 2012; Matthewson, 2013; Caven, 2004 & 2008; Caven & Astor, 2013; Adam & Tancred, 2000; Keen, 2011; Spaeth & Kosmala, 2012; Stratigakos, 2019). "*Women, Practice, Architecture: 'Resigned accommodation' and 'Usurpatory Practice'*" (Stead (ed), 2016) brought together a large body of work of anglophone feminist works,[144] which discussed female architects' navigation of professional identities. It discussed how these experiences were mediated by the media, institutions, like the Pritzker Prize, and history. Through another collection of essays, Brown and Harriss et al. (eds., 2019) endeavoured to "move the debate about gender in architecture beyond the tradition of gender-segregated diagnostic or critical discourse on the debate towards something more propositional, actionable and transformative". Its perspective expanded to include viewpoints of gender-diverse individuals, LGBQTA+ communities and men. Apart from one article by Lesley Lokko (2019) problematising the application of the notion of 'scientific' to gender, its geography was centred on the UK, Australia, USA, Spain, and Germany.

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[141] *Manager, Media Relations, Marketing and Communications, email communication 2021*.

[142] *Over 5000 responses, with good demographic distribution*.

[143] *See Appendix D – questionnaire*.

[144] *Spaeth & Kosmala, Fowler & Wilson, Burns, Matthewson, Figueroa, Treadwell & Allen, Willis, Heynen, Troiani, Caven & Astor et al., Morrow & Belford, Roan & Stead*.

Attrition was found universally to disproportionately affect women, also disaffecting them earlier in their careers, with the loss of women over ten years at one in four (Matthewson, 2017:11; Netanda, 2024; Sánchez De Madariaga, 2010). Matthewson's quantitative study was supported by a qualitative case study that, using Acker's framework for the gendered substructure,[145] unpacked the nuances of gendered experience (Matthewson, 2015:20-21). Matthewson studied attrition of the architecture profession in Australia using population census data, as well as registration data of students and licence holders (2015, 2016, 2017), demonstrating that more than 20% of Australian architecture graduates failed to identify as architects (Matthewson, 2017:11). However, Möller and Fernando et al. (2024) noted that many architects still derived satisfaction from alternative roles, reflecting a multifaceted relationship between satisfaction and career transitions. Instead of studying attrition, Caven studied women who persisted in the profession, finding that their desire to pursue a career in architecture was driven by an inherent interest or impulse arising in childhood rather than from research into the career (2008:904). Caven found that the female architects she interviewed largely accepted the challenges they faced and were not inclined to be confrontational or overtly feminist when they encountered gender-related barriers (Caven, 2008:907).

Sánchez De Madariaga examined the challenges faced by women in the architecture profession in Spain (2010), noting their recent and troubled integration due to structural sexism and discriminatory practices. The study used Bourdieu's theories of symbolic domination, cultural capital, and social capital to explain the observed persistence of the glass ceiling that limited women's professional advancement. Sánchez De Madariaga argued for political strategies to address these structural barriers to promote a more meritocratic profession. Although inconclusive, Morello and Issa et al.'s study (2018) suggested that a formal recruitment and retention plan may be effective for organisations to transform demographically. Some progress was reported in reversing homogeneity and improving diversity in the profession in some settings. For example, the number of women working in architecture in Germany grew from 29% in 2008 to 43% in 2014 (Pepchinski, 2019). However, patterns tended to persist (Landis, 2019). Similarly, despite women constituting 50% of graduates in the USA, only 17% of registered architects were women (AIA, 2020). De Graft-Johnson and Manley et al. (2003) and Fowler and Wilson (2016) noted the complexities related to attrition, retention, and transformation, and developed granular accounts to distinguish sector-specific factors from norms and discrimination.[146]

Race as minority

Using survey questions, the CABE study detailed multiple factors affecting minority students that likely contributed to their disproportionate exit rates from studentship or discouraged them from ultimately joining professional ranks. The CABE study reported gendered nuances to the type of architecture preferred, with a propensity for women to enter public service, combine practice with academia, and undertake regenerative work. By 2018, an article in The RIBA Journal indicated that the UK had all but eradicated race

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[145] *Uses mutually constitutive structural, cultural or symbol, interactional and identity dimensions for understanding inequality.*

[146] *Albeit from a primary focus on gender.*

deficits, with great strides in gender representation in the architecture profession (Green, 22 October 2019; Waite, 2018).

In 2016, the American Institute of Architects (AIA) conducted a survey titled "*Diversity in the Profession of Architecture*" that quantitatively examined demographic representation, perceptions of representation, reported challenges to career development, factors affecting representation of women and minorities, reasons for leaving the field and proposed strategies to address these issues. Building on her 2004 ethnographic study of an African American architect, Kaplan examined the historical and systemic barriers faced by African American architects (2006). After outlining historical segregation and discriminatory practices, the book examined the structural inequalities that persisted in the field, such as limited education, mentorship, and professional networks. Kaplan then presented case studies narrating the experiences of black architects who navigated these challenges. Kaplan suggested affirmative action be implemented to address the underrepresentation of black architects in professional organisations and leadership positions.

A range of gatekeeping arrangements

There was no national license in the USA. Instead, licenses were issued by each jurisdiction after candidates met specific education, experience, and examination requirements. Moulton (n.d.) noted that the costs associated with licensure are prohibitive for many aspiring architects in the USA.

Comparing legitimising structures in Australia and Sweden, Roan and Stead (2016) revealed distinct approaches to gatekeeping within architecture, using Bourdieu's concepts. In Sweden, the education system predominantly assumed the role of gatekeeper, with the professional institute exercising a loose oversight function. Conversely, in Australia, regulatory agencies played the central gatekeeping role, with the licensing mechanism designed to monopolise the market and control occupational work. Australia's, and to a lesser extent, Sweden's legitimising structures reportedly encountered limited success in effectively controlling the actual contributions made in the field, only managing to safeguard titles (Matthewson, 2015:17). Notably, Sweden placed the responsibility for complying with building codes on the client, diverging from Australia where professionals bore the risk. This distinction increased the need for rigorous control by legitimising authorities over the profession in the interest of public health and safety. The authors argued that building codes themselves are more effective in protecting the public than the regulators. Furthermore, Roan and Stead highlighted a conflict within legitimising authorities in maintaining exclusivity as they derived revenue from affiliation fees, undermining their stated mandate of protecting the public. As a consequence of these observations, amplifying other pro-women employment policies and culture, Roan and Stead concluded that Sweden's less bureaucratic and more flexible approach contributed to easier admission of women into the architecture profession and explained some of its comparatively better gender representation. The implication is that the costly, cumbersome, and prescriptive nature of Australia's system increased barriers to licencing or registration for women, with them able to perform a significant majority of tasks, even in the absence of formal credentialing. However, the authors speculated, the downside is that women's contributions may go un/misattributed, rendering them invisible within the professional landscape.

Transformative initiatives

Various initiatives were introduced in Australia to counter racist perspectives in the architecture profession, such as cultural competency training for non-indigenous architects,[147] an "*Indigenous Design Charter*" for staff in architecture schools, and within some universities, an audit of the proportion of indigenous content in university curricula.[148] Australia also introduced "*New First Nations*" design literature, including "*The SAGE Handbook of Indigenous Design*", and hosted the conference "*Go Back to Where You Came From, Indigenous Design Symposium*".[149]

3.3.5 Architecture and the nexus in Africa

Other than architecture

Stanek (2024) discusses transformation of the Ghanaian architecture profession in the public works department focusing on the decades preceding and following its independence. The article traces an evolution of who was considered 'other' by virtue of race, ethnicity, region/country of origin, or education. Mentioning gender briefly, Stanek identifies some of the challenges, delays and dilemmas in prioritising and achieving transitional goals. Faced with perceived tensions of dual mandates of 'Africanising' the public works department and fulfilling governmental development objectives, leaders like Adu and Adegbite tested various strategies. They sought variously to Africanise, regionalise and localise reproduction of professionals by providing local training, reassessing educational standards and preferentially employing professionals within governmental sectors. Additionally, negotiations regarding the racial classifications inherent in Africanisation policies engaged with colonial and cold war racial ideologies, presenting controversy. The pivotal choice made by Nkrumah and the Convention People's Party elite was to establish state institutions, including architecture and construction, based on colonial precedents. Economic and political factors tied to foreign resources slowed the transition from colonial standards. Consequently, the colonial models persisted for the period under the papers review (1951 - 1966), while alternative frameworks from UN experts and Kwame Nkrumah University of Science and Technology educators received later consideration and support.

The literature on transformation and retention from workplaces (jobs and professions other than architecture) in southern Africa was reviewed. Examples from the previous decade include business management and financial services (João & Coetzee, 2012; Schlechter & Syce et al., 2016; De Sousa Sabbagh & Ledimo et al., 2018; Wöcke & Heymann, 2012), academia (Pienaar & Bester, 2008; Takawira, 2012; Makondo, 2014; Booi & Vincent et al., 2017; Gani & Potgieter et al., 2020), advertising (Ferreira & Mujajati, 2017), research psychology (Rascher, 2016) and more. Many academic papers on southern Africa's professions mirrored the findings of international studies, emphasising a multiplicity of factors and the significance of context on observed variations in retention, attrition and transformation of professions.

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[147] *In Victoria, delivered through the State Institute.*

[148] *Burns, 2021, thesis proposal review feedback.*

[149] *MSD, University of Melbourne, 18-21 July 2018.*

Theron and Barkhuizen et al. (2014) identified compensation, emotional recognition, performance management systems, mentorship, and career development opportunities as key factors that influenced turnover and retention of academic staff. Pienaar and Bester (2008) concurred, finding that insufficient financial remuneration was a significant factor contributing to academics' turnover intentions, adding that this featured predominantly in the early career phase. João and Coetzee (2012) highlighted the importance of career mobility, work-life balance, knowledge and skills utilisation, and competitive compensation for retaining professional staff in the financial sector.

Three South African professional fields were selected[150] for more detailed review, for benchmarking, and to glean lessons for the architecture profession, in secondary literature and key informant reviews, in the final sections of this thesis.[151]

The nexus in architecture in Africa

In their "*Assessment of transformation strategies in South Africa: A multi-case study of the accounting, financial services, government, and construction sectors*", Musonda and Gumbo et al. (2019) framed transformation as a critical catalyst for addressing South Africa's socioeconomic challenges. The paper blended diverse perspectives by crossing organisational type boundaries, including an institute, an association, an advisory body, and a private listed company. Their work was predicated on the assertion that the built environment performed badly compared with other sectors, asserting that transformation strategies were essential for the survival and sustainability of the built environment profession (2019:73). Their study reviewed transformation tactics through the organisational lens of four sectors. All had stated a commitment to transformation and had demonstrated significant improvements over the previous two decades, although, on limited data presented, none had yet approached gender or race representation (Musonda & Gumbo et al., 2019:82-86). These studies recognised retention as a key strategy for enhancing transformation and identified several prevalent barriers encountered in their execution across all the institutions examined for their analysis. Insufficient financial resources; the demographic composition (age and gender) of individuals occupying senior roles; a lack of awareness regarding career opportunities; deficiencies in academic training, and inadequate compensation were identified as common obstacles (Musonda & Gumbo et al., 2019:95).

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[150] The selection of law, medicine, and other built environment professions as comparators for the architecture profession was informed by perceived congruence. These professions, like architecture, are characterised by particularities of cultural and social capital reproduction, such as professional qualifications, licensing/registration, and internship/candidacy. While academia similarly thrives on social capital, it often operates outside the direct logic of capitalism, emphasising intellectual capital and scholarly esteem (symbolic capital). Public health, too, while similar in its public service orientation, operates under different constraints and motivations compared to its private-sector contingent. By focusing on law, medicine, and the built environment, this selection aims to compare professions that resonate with the architectural field, in their public service orientation, and their subjection to market demands and rewards.

[151] See 7.2.1 'Other' built environment professionals, Law, and Health sciences and medicine on page 236.

Transformation strategies identified were:

- Skills development programmes focussed on structured training and education to improve employee capabilities.
- Involving stakeholders and employees in developing transformation strategies, so that organisations foster a sense of ownership and commitment.
- Establishing committees responsible for driving the transformation agenda.
- Continuous assessment of the effectiveness of retention strategies that allow organisations to make necessary adjustments, better support their employees and reduce turnover.
- Incentive structures that are vital for motivating and HR retention, potentially including financial incentives, career advancement opportunities, and recognition programs that acknowledge employee contributions.

Fulani and Amole (2016) studied gender and learning in the architectural design studio in Nigeria but drew no direct inference to retention or demographic transformation. Benhamouche and Lebdiri et al.'s 2022 study in Algeria found that although the situation was improving, in that women graduates outnumbered men in architecture (64%), many women failed to register with the professional body. Therefore only 24% of its register were women. They speculated that women left the profession due to external pressures but often transitioned into related fields which do not require registration. They observed that relevant data in Algeria, the Middle East and among Muslim women was limited, compromising their ability to study the field. To develop insight, therefore, Benhamouche and Lebdiri et al. used documentaries, awards and popular media articles that focussed on the achievements of iconic female architects, to shed light on some of their challenges.

In their survey of 84 female architects and architecture students in Nigeria,[152] with an implicit study rationale of gender transformation, Afolabi and Akinola (2021) examined key traits for effective mentorship in architecture. Mentees valued mentors who could teach, listen, and communicate well, while mentors appreciated mentees who communicated effectively, stayed focused, and showed intelligence. Negative experiences in these relationships stemmed from personality clashes, credit theft, and unrealistic expectations, attributed to attitudes and emotions and loss of motivation. The study concluded that well-implemented mentoring programs for women could enhance productivity, empower newcomers, attract and retain women in the profession, increase salaries, boost job satisfaction, and enhance the number of role models.

In their intersectional study on race and gender in South Africa's architecture profession, Reimers and April (2022) used an inductive approach to understand structural and systemic issues impeding black^ women's career advancement. Their research explored multiple factors, such as professional and institutional cultures preserving the status quo, conscious and unconscious bias, and the role of gender role reinforcement. The authors prescribed mentorship, open dialogue and championing of transformation by 'those in authority', to overcome these challenges. That practitioners were sensitised to the concerns of power relations in the profession was evident in local literature.

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[152] *It is useful to note the majority of participants were graduates, and student status reflected postgraduate studies.*

For example~

> *As architects we need to be conscious of the effects that power imbalances have had on the way we think, what we value, and what we like and what we dislike. We also need to be aware of the one-sided nature of our professional training and its grounding in a First World modus operandi. We are products of a culture, education and profession that is infected with the virus that is the ideology of white superiority. To make a meaningful contribution to reflecting and shaping South African society through architecture we need to actively look for ways to reverse the ideology and balance out our inherited biases. It is our responsibility to create architecture that contradicts racist ideology rather than further manifesting and perpetuating it.*
>
> (Manning, 2004:534-535)

Young-Pugh (2005) discussed transformation in architectural practice and education, framed as a shift from a local focus to participation in global markets.[153] This study provided a comprehensive account of the social and cultural state of the profession in the Mbeki era.[154] Vosloo's work (2017, 2022) noted financial stress and the existential crisis faced by the architecture profession in South Africa and internationally in the late 2010s. He argued for embracing entrepreneurship as a strategic response to the changing landscape, to help architects navigate the challenges and uncertainties of the industry, thereby ensuring their continued relevance in a rapidly changing world.

In his 2015 thesis, "*Career Orientation Typology of Architects: A South African Study*", Shaun Adendorff sought to investigate the relationships between architects' career characteristics, job satisfaction, and life stages. The thesis was predicated on the proposition of the demise of traditional hierarchical structures in favour of more horizontal career paths, which reflected a broader trend in the workforce to accommodate increasing value placed on flexibility and autonomy. Driven by changing employee expectations, individuals were thought to opt for lateral moves rather than upward progression (Adendorff, 2015:82) in a context of more democratic and collaborative management systems that accommodated diverse career interests and needs (Adendorff, 2015:391). The work proceeded to classify the key career anchors (as defined by Schein, 1996) and characteristics of architects, measuring their job satisfaction, mapped to career life cycle stages and career stage transition markers. To the current study, transformation in career structures is significant as it could influence retention rates, as per Adendorff, employees are more likely to stay in environments that align with their personal values and career anchors.

Adendorff's study reflected on challenges experienced by women in advancing in the field, the 'glass ceiling', and the impact of traditional gender roles on career path trajectories (Adendorff, 2015:391). The thesis examined how women often experienced more complex career development trajectories due to their multiple family and work-related roles, and their value of lifestyle and autonomy. Women architects tended to prioritise work-life balance and flexibility, allowing them to navigate the demands of their professional and personal lives (Adendorff, 2015:154, 373). Similar to international studies and Reimers and April (2022), Adendorff observed that while women were

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[153] *Relevant too, to the end of sanctions which were imposed on South Africa during apartheid having socioeconomic and cultural effects.*

[154] *Thabo Mbeki, second president of South Africa held office from 1999 to 2008, during which time the GDP per capita grew, (South African Market Insights, 2018).*

increasingly entering the profession, they still faced significant barriers to achieving leadership positions, with only a small percentage becoming directors of architectural firms (Adendorff, 2015:156).

Adendorff explored the impact of race on career trajectories within the architectural field. As the profession was historically dominated by white practitioners, there was a pressing need for greater representation of black^ architects. The study suggested that understanding cultural contexts was essential for addressing equity issues and fostering more inclusive environments within architectural practices (Adendorff, 2015:392).

The findings revealed that architects often experienced a mismatch between their career expectations and the realities of the profession. Many architects reported dissatisfaction due to long working hours, high workloads, and a lack of job security, exacerbated by the project-based nature of architectural work (Adendorff, 2015:100). This pointed to the importance of aligning organisational practices with the evolving expectations of employees (Adendorff, 2015:372).

The study advocated for architectural firms to implement strategies that supported diverse career paths, thereby accommodating the unique needs of a multicultural workforce (Adendorff, 2015:391). Adendorff proposed a career lattice model to remedy traditional career paths' shortcomings. This model allowed for multidirectional career movements, enabling architects to pursue various specialisations and roles without being confined to a linear progression (Adendorff, 2015:373).

Adendorff acknowledged that many architectural firms, particularly smaller ones, do not operate like traditional organisations with formal human resources departments or corporate structures. Instead, these practices often functioned with a more informal and flexible approach, which could lead to unique challenges in managing careers, employee satisfaction (Adendorff, 2015:370) and diverse needs (Adendorff, 2015:391). He pointed out that the traditional architectural career has changed, with success no longer solely defined by promotions and salary increases but also by the ability to navigate the complexities of modern architectural practice (Adendorff, 2015:2).

Adendorff's work addressed the changing nature of work and evolving expectations related to the workplace. He addressed the tension between architecture's artistic and business aspirations, arguing that while creativity and problem-solving were core competencies of architects, management and regulatory issues had become increasingly significant in building processes (Adendorff, 2015:26).

There were industry reports and position papers which included data on demographic statistics in architecture, for example, CBE (2017:59; 2018; 2019); SACAP (all annual reports) and the VAs (unpublished). Recommendations were provided in industry reports. However, the bases for the proposed approaches were not articulated. Beyond the material noted above and material from the numerous symposia and events identified earlier in this thesis, I could find minimal local or African material in the literature exploring a lack of transformation or attrition in the architecture profession from an academic or qualitative perspective.

3.3.6 Limits and successes of scholarship

One of the primary successes of the literature was its comprehensive examination of the multifaceted nature of attrition and retention. Scholars have highlighted the interplay of various factors, including race, gender, and socio-economic status, that contributed to the experiences of individuals within the architectural field. These findings pointed to persistent systemic barriers in architectural education and practice, revealing a critical need for reflection within the profession.

The literature has been instrumental in:

- documenting the experiences of marginalised groups within the profession, particularly women and black^ practitioners (for example, Reimers & April, 2022).
- explaining the role of institutional structures and cultural norms in shaping the experiences of underrepresented groups (for example, Payne, 2015).
- illustrating how curricular architecture education perpetuates social inequalities related to class, race, and gender.
- illuminating the significance of mentorship in the nexus.
- demonstrating a need to inculcate an early sense of belonging.

Success, replicated

Despite these successes, the literature exhibited limitations. The lack of empirical studies, especially longitudinal ones, that tested the effectiveness of recommended remedies is evident. Many of the suggested remedial actions, for example, mentorship, rituals through liminal rites of passage, and continuing professional development, are already embedded as practice in professions, including the architecture profession in South Africa. This gap in the literature limited the ability to draw definitive conclusions about the efficacy of recommended approaches, hindering the development of evidence-based practices that could dependably address the nexus.

Generalisability

Magali Larson, who spent her career studying and theorising the professionalism of lawyers, architects, teachers, nurses, and others from a sociological perspective, did not believe that there could be a general theory of professions for all places and all times (2017, xxii). Therefore, a further concern was that much of the existing scholarship was predominantly situated within the contexts of developed economies, which raised questions about the applicability of these findings to the South African context. The literature acknowledged that the dynamics of attrition and retention may differ significantly across geographical and cultural landscapes (Sturman & Shao et al., 2012:538). Yet, there remained a reliance on frameworks and models developed in western settings. Although different in many respects, Australia shared some commonality in histories with South Africa, related to having colonial pasts, being part of The Commonwealth, and weakly similar origins and influences of their respective architecture professions.

Race as minority

The literature of western settings, representing most of the academic literature,[155] identified black as a 'minority'.[156] Race and intersectional distortions in professional workplaces in South Africa were not a numeric minority issue, as blacks^ were most numerous in the population, accounting for more than 92% of the population. In contrast, in prior studies, black people were in the numeric minority. This reliance may obscure the unique challenges faced by practitioners in South Africa, where historical and socio-economic factors play a critical role in shaping professional experiences. This research, therefore, answered a clarion call by some scholars (Kuhlmann, 2013; Chorev & Schrank, 2017; Bonnin & Ruggunan, 2013) to expand the scholarship to include the understudied sociology of professions from the global South.

Diverse perspectives

Moreover, the literature often failed to capture the diverse perspectives of all stakeholders involved in the architecture profession. The perspectives of those most prone to attrition - namely students and early-career professionals - were frequently underrepresented within the discourse. This oversight limited the potential for developing comprehensive solutions that address the root causes of attrition and the nexus.

Attrition as 'Wicked'

The literature provided evidence that the issues that lead to the nexus are diverse. Although remedial recommendations were prescribed for APs in local industry reports,[157] longitudinal studies experimentally testing the efficacy of interventions to prevent attrition were rare in the literature. Studies of remedial efforts or interventions to stem attrition were seldom reported and less successful than hoped (Hamshire & Jack et al., 2019). Multiple measures have counteracted each other, or learning may not be applicable in other settings (Hom & Lee et al., 2017:538). This has led some scholars to posit attrition as a complex or 'wicked' problem (Hamshire & Jack et al., 2019; Mason & Matas, 2015; Beer & Lawson, 2017; Hom & Lee et al., 2017) as first proposed by Rittel and Webber (1973).[158]

Wicked problems are difficult to define and inherently resistant to resolution due to their multifaceted nature and the diverse perspectives of stakeholders involved. At the core of the discussion is the recognition that attrition is not an accretion of matters of individual choice but is deeply embedded in systemic structures and cultural dynamics. The diverse perspectives of stakeholders involved further exacerbate the wicked nature of these problems. Employers, employees, educational institutions, and professional organisations each bring their own priorities and concerns to the table. This multiplicity of viewpoints can lead to conflicting agendas, making it challenging to develop cohesive strategies for addressing attrition, transformation, and retention. For example, while

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[155] *Country studies included the USA and Canada, Aotearoa New Zealand, and Australia, and various European countries, although there is a small body of recent work emerging from Nigeria, Algeria, and Turkey.*

[156] *As per classifications of Development Policy and Analysis Division of the Department of Economic and Social Affairs of the United Nations Secretariat.*

[157] *See for example, CBE (2018).*

[158] *See Appendix A – glossary of terms in Architecture- and sociology- related terms.*

employers may prioritise short-term productivity gains, employees may seek long-term career development and job satisfaction.

The literature conceded the role of external factors, such as economic conditions and societal trends, in shaping attrition and retention dynamics. Professions are not insulated from broader economic fluctuations, and periods of economic downturn can exacerbate attrition rates as opportunities become scarce. Furthermore, societal shifts, such as changing attitudes toward work-life balance and mental health, influence the expectations of new entrants into the profession. As younger generations prioritise flexibility and well-being, traditional practice models may need to adapt to retain talent. In conclusion, the literature reviewed suggested that attrition, transformation, and retention within the architecture profession may be good candidates for wicked problems.

3.4 Key Findings of Part 1

This thesis began with a high-level overview and established the research context. It introduced a contention that attrition was a notable feature of the profession between 2000 and 2019. As the issue ostensibly disproportionately affected women and black^ architecture professionals, it was framed as a retention-transformation nexus. The costs associated with producing graduates and the growing importance of transformation goals to the state, professional bodies, and practitioners were demonstrated and presented as a rationale for investigating the nexus. A problem statement was articulated, and research aims with four specific objectives were defined. Bourdieu's sociology was identified as the theoretical underpinning for the doctoral study. Cultural capital was expressed as a quest to engage in meaningful work - for APs, assumed to be actualising architecture. Economic capital was identified with material rewards to sustain a living wage and surplus, through commissions or employment. Social capital was designated as prestige and freedom from discrimination. These capital forms were represented together and proposed as a model for distinction to frame subsequent sections of this thesis.

Chapter three began with a descriptive overview of South Africa's unique socio-political history and linked it to a broader global discourse, to orientate the reader to the research context leading up to the pivotal moment marking the entry of a new dispensation. After setting the scene, scholarly literature was reviewed to position the nexus in a context of experiences across professions, jurisdictions and eras. The literature above indicated that attrition rates were routinely different and experienced differentially by demographic factors, such as race and gender. Studies attributed these findings variously to external pressures and internalised barriers or some combination. This phenomenon was found not unique to architecture reflecting that broader societal issues of inequality and discrimination permeated many professional fields. Their multi-level nature, related to their intertwined personal, organisational, and institutional nature, was shown to complicate an understanding of attrition as actors in the field navigated a landscape shaped by historical and contemporary inequities.

The literature brought to the fore the role of institutions in shaping retention and transformation efforts. Scholars criticised architectural firms and educational institutions for perpetuating unwelcoming or even hostile environments. The inconsistency of effective mentorship, insufficient support systems, and the persistence of a ‘boys' club’ culture contributed to a sense of isolation among some practitioners. This backdrop seemed to create a vicious cycle where the absence of diverse voices led to a lack of representation in decision-making processes, further entrenching the status quo. Retention strategies were often approached piecemeal, failing to consider the broader context in which they operated. The literature suggested that retention was not solely about providing competitive salaries or benefits; but also about creating a sense of belonging and purpose within the profession. APs, particularly those from marginalised backgrounds, sought professional environments that aligned with their values and aspirations. Therefore, retention efforts must be multipronged, addressing the material conditions of employment and the affective dimensions of professional identity.

The literature surveyed critically explored the complex dynamics of attrition and retention in the architecture profession, especially where this was viewed through the lens of race, gender, or socio-economic factors. However, despite notable strengths, it lacked adequate empirical research, especially longitudinal studies, to evaluate the proposed interventions' efficacy. Furthermore, much of the current scholarship was based in developed nations, raising questions about its relevance to South Africa, where a unique historical and socio-economic context prevailed.

PART 2

Part 2 confirms the existence of a retention-transformation nexus. It analyses dynamics in (and around) the profession and investigates the personal journeys of those placed and misplaced in it. It examines some of the capital exchanges as institutions, individuals, and practices negotiate their place in the field.

> *To be entirely rigorous, one would have to allow for structural changes, such as the devaluation of nominal qualifications which occurs in periods... when the educational system is used more intensively*
>
> (Bourdieu1984:75)

4 A STRUCTURAL VIEW OF THE FIELD

Chapter four presents a structural view of the field.

4.1 Quantitative View of the Pipeline

Part one of this thesis introduced a contention that South Africa's architecture profession did not appear to be growing and transforming to expectations or aspirations. The first task, therefore, is to examine the merit of this claim.

4.1.1 Professional progression as a pipeline

A pipeline

Sociological journeys are unique, but often follow well-worn paths.[159] For APs, progression in the field often flows more-or-less sequentially from the attainment of theoretical skills outside the ambit of exposure to 'real world' limitations and risks, as a student, to new entrant into the workplace with supervised exposure, as a candidate, to fully fledged professional, with potential for further status advancement. As illustrated in *Figure 7*, each point of status transition is marked by an inflection point, and each of these marks a moment of liminality.[160]

Inflection points offer convenient, though imperfect, points to measure losses in this flow

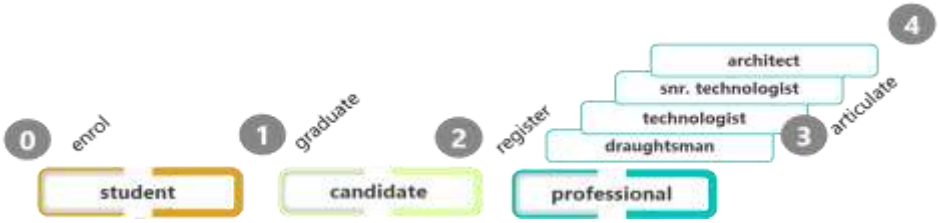


Figure 7: Professional progression conceived as a pipeline

or 'pipeline'. Liminal periods have a heightened risk of attrition by nature and present potential moments for intervention.

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[159] *Alternate means for APs to participate as legitimised practitioners exist and will be detailed in due course.*

[160] *Liminality is the quality of ambiguity or disorientation that occurs in the middle stage of a rite of passage, when participants no longer hold their pre-ritual status but have not yet begun the transition to the status they will hold when the rite is complete (Stenner, 2013). For this study liminal/liminality is defined as the periods between inflection points of the professional development pipeline (for example, between matriculating and enrolling at ALS, between graduation and registration as candidate, and between candidature and full professional status).*

Enrolments vs. graduates

Gender and race statistics gathered by the Department of Higher Education and Training (DHET) from 1986[161] were plotted on a chart in *Figure 8* (DHET, 2000, 2024).[162] These showed growth of about 170% across all areas of study in public tertiary institution graduates from 2000 to 2019. In 2000, 59% of all graduates were women, who accounted for 52% of the national population. By 2019 women graduates were 63% of the graduating cohort. Beginning with a modest, then growing improvement, black^ graduates grew from 61% to 83% over the subsequent two decades, still shy of the 92% required for demographic representativity.

DHET classified graduates by education subject matter (CESM) focus. The architecture-related majors were substantially contained within, but not reducible to, the CESM 02 series: "*Architecture and Environmental Design*" (Department of Education, 2008), as this category included additional subjects, such as planning and environmental technology. As the CESM 02 code remained similar, despite occasional refinements in recording and reporting protocols, it was used to provide a robust and strong (though overstated) view on the architecture professional graduate cohorts since 1986. Estimates[163] were that architectural learning programmes accounted for about a third of CESM 02 codes.

Whereas females constituted 61% of all graduates, CESM 02 showed a greater than four-fold increase in graduates, with an increase in female graduates from 35% in 2000 to 44% in 2017. Nationally, all black^ graduates grew from 25% to 84%, whereas CESM 02 black^ graduates grew from 15% to 70% between 2000 and 2017. Therefore, compared to all graduates, CESM 02 graduates were less representative of the national background demographic from both gender and race perspectives, but had demonstrated major transformations off low bases.[164] By consolidating annual HEMIS data on enrolment and graduation, APs attrition from ALS was estimated.[165] As an order of magnitude, I estimated that 70% of South African students enrolled in undergraduate architecture courses during the first two decades of the 21st century failed to graduate, more than that observed in very high national tertiary academic attrition rates (DHET, 2019).

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[161] *As per HEMIS data availability.*

[162] *Note: 2016 and 2018 data were excluded.*

[163] *These are my estimates based on HEMIS graduate data from ALS between 2012 and 2018, supplied by SACAP, data cleaned, triangulated with HEMIS opensource data.*

[164] *Two intriguing observations were made comparing CESM 02 and overall graduate data. First was that in 1999 and 2000 there was a significant reduction in the number of graduates as a proportion of all graduates, as well as for CESM 02 graduates. Presumably this related to a hysteresis effect, originating in a suppressed initial enrolment around ~1996 and 1997. It is noteworthy that this effect was significantly more pronounced for CESM 02, which, in 2000 experienced less than half of 1998 graduate figures. An explanation for this was not found, and being outside the focus period was deemed peripheral to the research. The second observation was that, apart from the 2000 trough, all graduates showed consistent growth, whereas CESM 02 codes were more stochastic, which presented a challenge to trending and forecasting analysis, and recommendation for further study.*

[165] *See 2.1.3 Data and materials on page 40.*

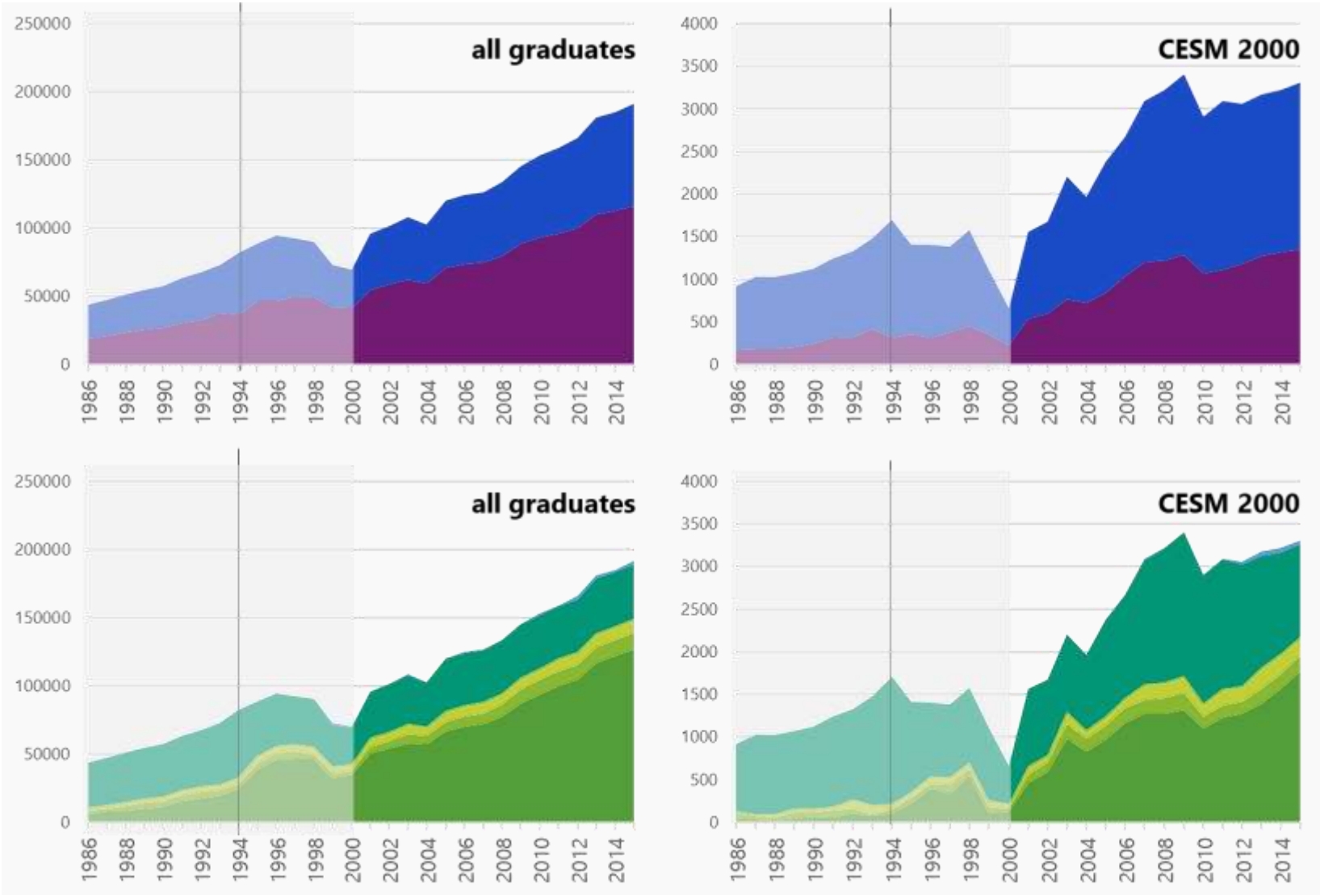


Figure 8: Annual number of all degrees by (left) and CESM 02 (right) per gender (top) and race 1986 to 2016 (HEMIS data: visualisation by author)

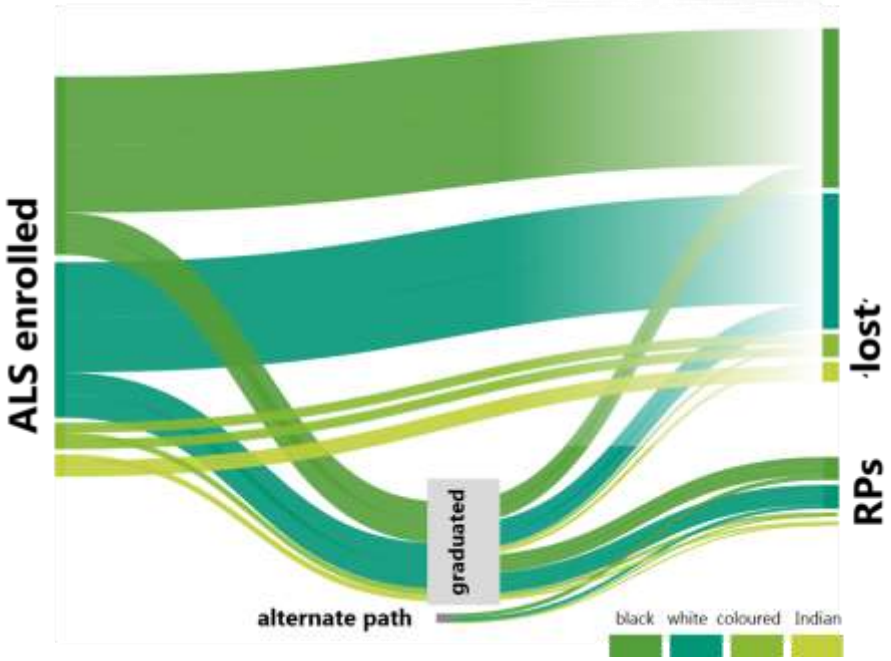


Figure 9: Sankey of estimated attrition from ALS enrolment to graduation, to first professional registration per gender (author's visualisation, using Sankeymatic©, HEMIS and SACAP data)

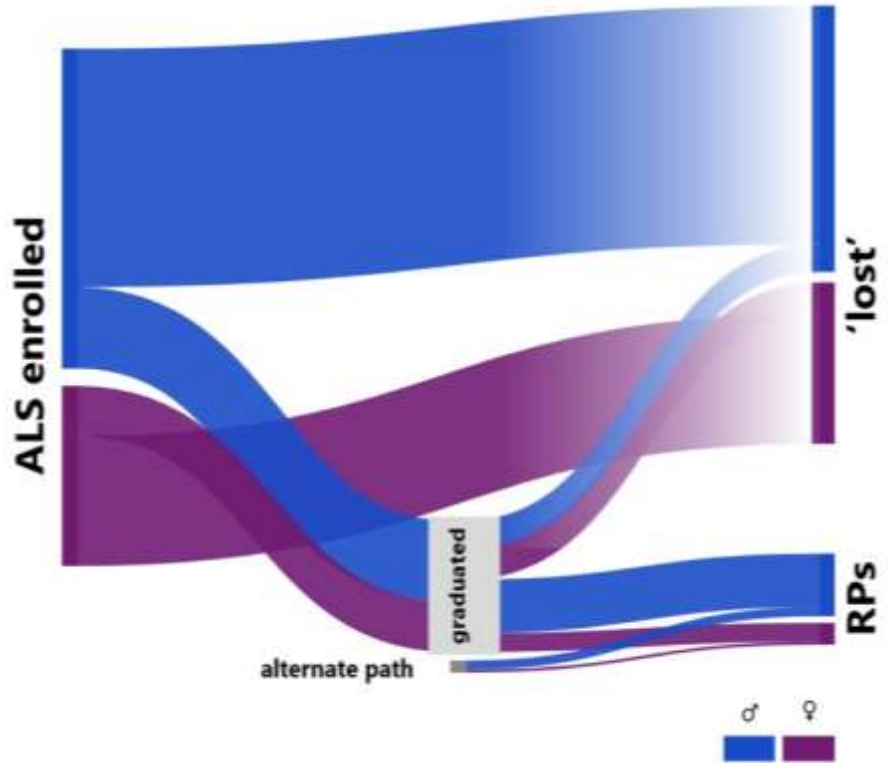


Figure 10: Sankey of estimated attrition from ALS enrolment to graduation, to first professional registration per race (author's visualisation, using Sankeymatic©, HEMIS and SACAP data)

Liminal losses

Using supplied SACAP data, I estimated that a further ~44% of APs were 'lost' due to attrition in the liminal period between graduation and registration from 2012 to 2018. These pipeline flows are visualised proportionally for race in *Figure 9* and for gender in *Figure 10*.

Professional registrations

SACAP data showed that new registrations steadily rose between 2000 and 2019, as shown in *Figure 11*. The signal 'bumps' in 1971 and 2002 corresponded, with hysteresis factored in, to the promulgation of the 1970 Architects' Act 35 (Republic of South Africa, 1970) and Act 44, respectively. The signal 'bump' in 2005 - 2007 was expected, corresponding to the introduction of 'new' professional registration categories.[166] However, the major spike in 1991 remains unaccounted for. Cumulative registration numbers peaked at ~11,500 in 2008 (SACAP, 2010). This corresponded with an economic high point preceding the international financial crisis.[167] By 2021 RPs totalled ~8,700 (SACAP, 2022).

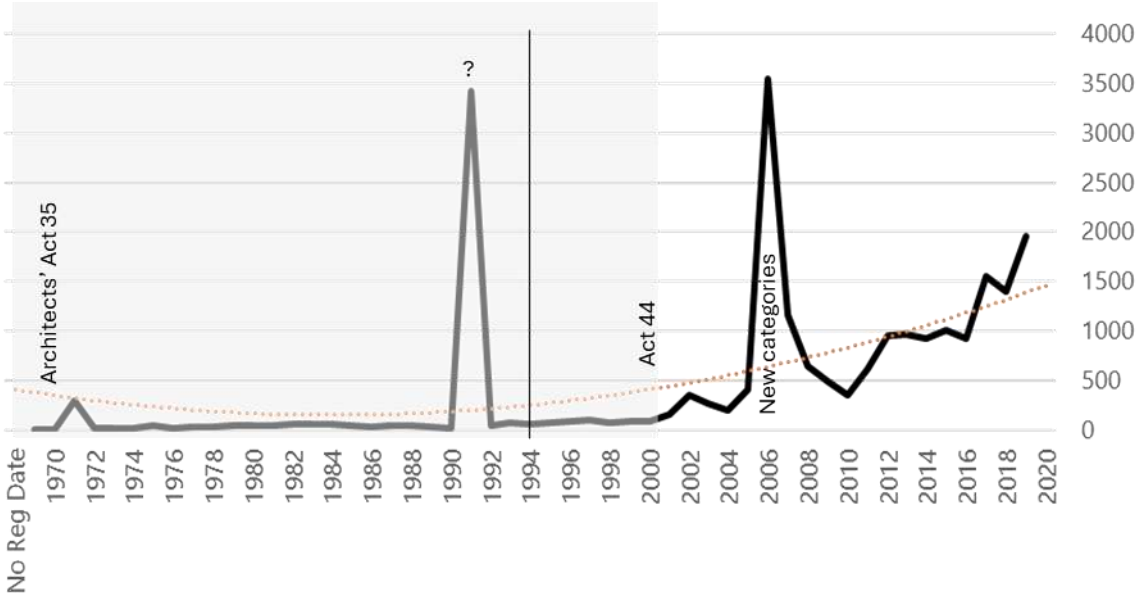


Figure 11: SACAP new registrations 1970 to 2019 (source: SACAP)

At the end of 2019, women (all categories considered) accounted for 25% of the professional register, against a national demographic of 52% (SACAP, 2020). Black^ individuals accounted for 35% of the professional register (all categories considered), against a national demographic of 92% (SACAP, 2020; StatsSA, 2022).

Figure 12 graphically presents the proportion per major demographic category of all RPs per decade, based on SACAP register data. Although this indicates a significant

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[166] *See 3.2.3 Monopolising tendencies before ~2000 on page 65.*

[167] *see 4.2.5 Building production volumes from 2000 to 2019 on page 108.*

transformation towards gender and race representativity, the top panel reflects the national population demographic, which provides an aspirational frame of reference.

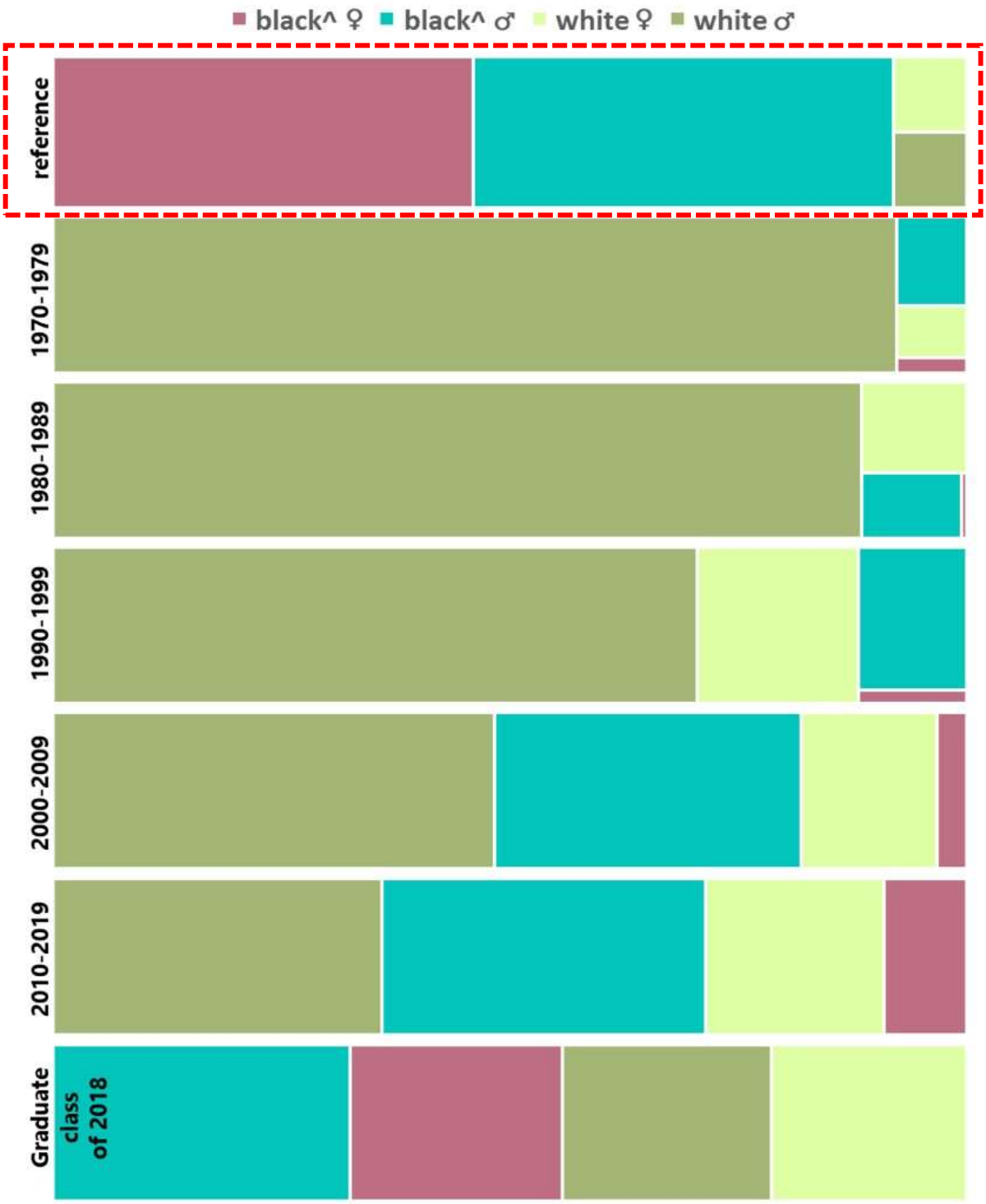


Figure 12: Decadal demographic transformation of RPs (SACAP data: visualisation by author)

4.1.2 Losses in transition from graduation to registration

Using graduate data from HEMIS on SACAP-accredited learning programmes,[168] and SACAP's first date of registration data, rates of failure to register upon graduation were estimated for between 2012 to 2018 per gender and race, as shown in *Table 8*.

Table 8: Estimates of failure to register following graduation per race and gender (2012 to 2018)

	black	white	coloured	Indian	♀	♂
2012	57%	35%	33%	40%	53%	23%
2013	74%	45%	35%	47%	65%	29%
2014	49%	56%	31%	54%	58%	40%
2015	65%	54%	45%	41%	72%	29%
2016	52%	58%	51%	56%	68%	37%
2017	65%	85%	44%	59%	85%	51%
2018	34%	58%	60%	67%	39%	27%

On average, 55% of black^ graduates and 56% of white graduates entered candidacy. The high relative enrolment of white individuals admitted to ALS was propagated through the pipeline, through graduation, to professional registration. That is, a deficit of black^ RPs originated as a 'supply' issue at the inflection point of enrolment at ALS, which endured thereafter.

Cumulatively, only 37% of eligible women graduates entered candidacy, compared with nearly 70% of their male counterparts.[169] That is, contra race deficits, gender deficits in professional registration originated *after* graduation.

Although this visualisation ignores any lag effect,[170] by comparing the gap between graduates and registrations and observing trendlines over time, in *Figure 13*, it can be seen that the number of black^ graduates rose exponentially, and the fraction of black^ registrations also increased, but not at the same pace. Although the number of white registrations declined, this was lower than the fall in graduations. In *Figure 13* it can be discerned that male registrations grew at almost the same rate as increases in male graduations. Female graduations grew exponentially, and while registrations grew, this was relatively less, with the proportion of females registering significantly lower than that of males.

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[168] *This included calculating adjustments for those proceeding to postgraduate qualifications to avoid double counting. It is also worth noting that this is more narrowly focused than the CESM 02 analysis, for which longer-term data and enrolment data were available.*

[169] *These statistics seemed to compare poorly to the 92% conversion rate of graduates into candidacy and 82% conversion from graduation to admission claimed by the law profession (Klaaren, 2020). However, as discussed in 7.2.3 Law on page 229, this appears to no longer be true.*

[170] *The data analysis procedure implicitly assumes that formal candidacy was entered into in the year of graduation.*

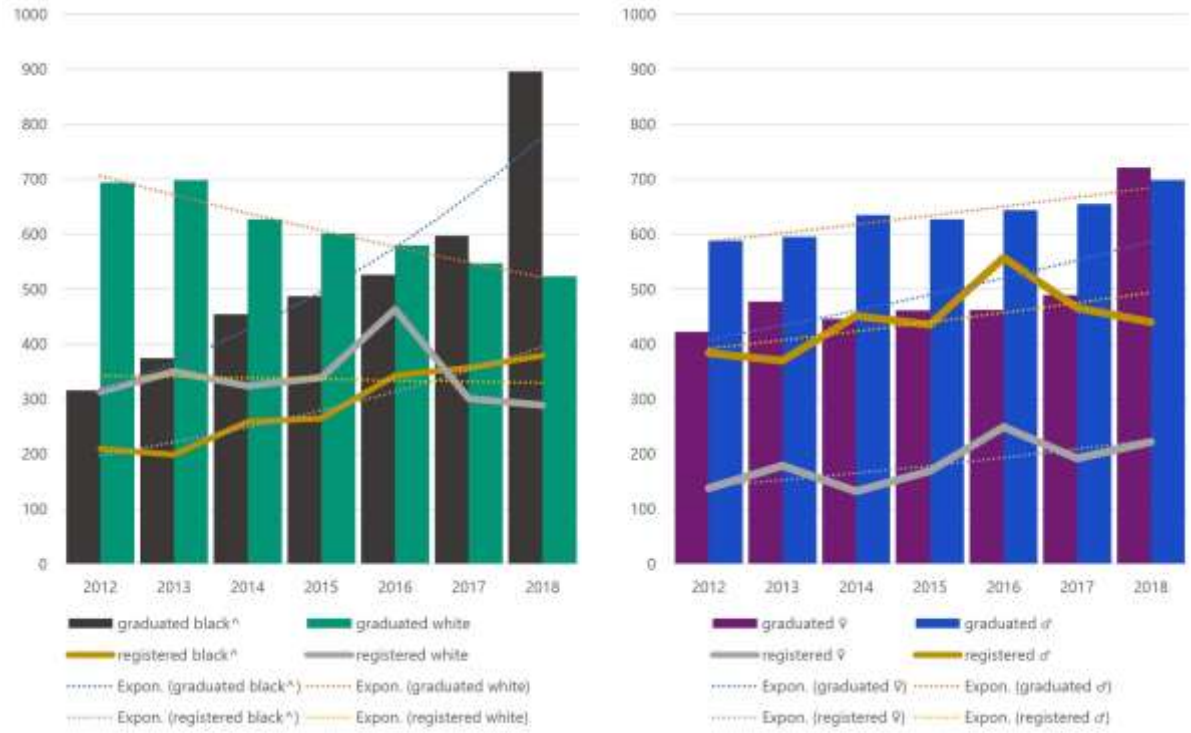


Figure 13: Graduations and registrations per race and gender (SACAP and HEMIS data: visualisation by author)

4.1.3 Estimate of potential pool

It was apposite to the study to estimate the size of the whole AP pool, comprising RPs (who could be clearly identified) and those who never registered or whose registration had lapsed, to determine the effect and sample sizes for this research. Due to incomplete and incompatible data, a robust assessment method was adopted, predicated on several assumptions:

- It was assumed that professionals lost through emigration were matched by immigration gains.[171]
- Pipeline inflows via recognition of prior learning (RPL) were disregarded.[172]
- Pipeline inflows via private institutions were considered numerically insignificant and were disregarded as private institutions only recently became accredited.[173]
- By far, the most common entry point into the 'higher' registration categories was via an accredited formal qualification.[174]

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[171] *See APs in motion: emigration, immigration and nomadic work on page 252.*

[172] *Shown to be insignificant in 2 → 3 – candidate to professional on page 125.*

[173] *Inscape in 2020 and Stadio in 2024 (SACAP, n.d.[d]).*

[174] *As shown in 2 → 3 – candidate to professional on page 125.*

By extrapolation of DHET graduate data of architectural qualifications between 2012 and 2018, supplied by SACAP, [175] I estimated the graduate pool to be between 19,075[176] and 23,640[177] for a period of 35 years.[178] A death coefficient of 0.3 was applied.[179] Thereby, the surviving accumulated potential professional cohort was estimated at between 13,418 and 16,630. In total, in 2023, SACAP reported an affiliation of 11,913 RPs. Of these, 9,298 RPs were presumed to access the profession through formal qualifications,[180] implying an absorption of graduates into SACAP of between 56% and 69% and a 'missing' population of 5,726 (±1,606).

4.1.4 A retention-transformation nexus corroborated

The foregoing analysis showed that there were considerable and sustained systems losses at each inflection point in the pipeline. The data also rendered clear that losses disproportionately afflicted women, particularly acutely following graduation, and blacks^, from enrolment at ALS, producing a retention-transformation nexus. Although confounders, such as changes to reporting and recording protocols, a lack of cohort studies,[181] (and stochastic data characteristics presented challenges to the precise quantification of losses and forecasting; it was evident that, on its 2019 trajectory, the production system would require several decades to achieve demographic representation among RPs. Therefore, the contention introduced in Part 1 is corroborated.

A limitation of the preceding data analysis was that it did not distinguish between qualification types, which conferred differential access to higher-status positions within the field. Numeric representation at an aggregate level was not necessarily sufficient to achieve meaningful transformation: demographic representation would need to be diffused through all tiers of workplaces and professions, extending to positions of leadership, influence, decision-making, ownership, control over resources and means of production, higher visibility roles etc. For instance, while it was true that there was a

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[175] That is, not the broader CESM 02 used above. Also, only the undergraduate degrees were considered, since additional degrees do not add graduates to the graduate pool.

[176] Assuming moderate growth based on a straight-line progression, achieving 365 graduates in 1994 and 800 in 2023.

[177] Calculated as the product of 35 years and a constant derived from the average graduates produced.

[178] Assuming a career span of 35 years based on 30 years to 65 years.

[179] Calculated as follows:

10 per 1000	*1%*	*(Statista, 2024[a])*
Survival	*99%*	*0.99 ^35*
Raised to 35	*0.703448*	*survival coefficient over 35-year period*
1-survival	*0.296552*	*death coefficient over 35 years*

[180] That is, excluding apprentices, students, Candidate Draughtspersons (CAD[a]), Building Control Officers (BCO) and Professional Draughtspersons (PAD) registrations.

[181] See 2.1.3 Data and materials on page 40.

notable increase in the representation of black^ individuals occupying senior management positions within various corporate structures in South Africa, it remained a fact that influential roles continued to be predominantly occupied by white males; moreover, the opportunities for upward mobility accessible to black^ managers and women were historically constrained by mechanisms of social closure[182] that served to reinforce existing hierarchies and inequities within the workplace (Horwitz & Jain, 2011:306; Department of Labour, 2018). Beyond quantitative data contained in official records, there was a paucity of qualitative data, analysis, and reporting that could offer valuable insights into the observed patterns of attrition. For example, student exit interviews and graduate tracer studies are thought to be instrumental in bridging the gap between academia and industry,[183] enhancing the quality of education and ensuring the relevance and applicability of academic programs in the real world (Munro & Senekal, 2019). However, exit interviews from ALS, recorded or shared, and tracer studies to follow graduates, for example, moving between institutions, were not necessarily undertaken or shared so that individuals who failed to register in subsequent study or with SACAP could not practically be followed up and hence, seemed to vanish.

4.2 Cultural Capital and Foreclosure

This section discusses various strategies devised to monopolise, with reference to counter efforts to redefine, expand, and open up the field. As per the model for distinction, cultural capital is centred on the capital accumulation sought to produce and reproduce architecture. Cultural capital is confined to that which is central to the attainment of this 'ultimate' goal, where it relates to efforts to define the terrain (and what is excluded); regulate, foreclose and control the field, and efforts to secure its modes of production and reproduction. See *Figure 14*.

Manchidi and Rwelamila (2019) examined how built environment professionals (BEPs) in South Africa strove to legitimise their roles and establish professional boundaries for enhanced control. The authors considered the reservation of specific functions to registered persons to safeguard the public from unqualified practitioners an important rationale for reinforcing professional boundaries (Manchidi & Rwelamila, 2019:36). Their paper emphasised the competitive struggle of BEPs to define and expand their areas of expertise, asserting that claims to unique knowledge was a tactic to monopolise professional tasks (Manchidi & Rwelamila, 2019:40). They highlighted BEPs' role in actively delineating responsibilities to prevent encroachment by others, solidifying their authority (Manchidi & Rwelamila, 2019:41). Despite defined boundaries, Manchidi and Rwelamila argued for the necessity of collaboration among BEPs to enhance project outcomes through effective knowledge integration (2019:34).

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[182] For example, through overlocking directorates (where the same individuals serve on multiple boards, limiting the opportunities for black^ managers to ascend to leadership roles); glass ceilings, and lack of access to informal networks (which facilitate upward mobility).

[183] Tracer studies can provide insights into the career trajectories of graduates, which helps educational institutions understand how well their programs prepare students for the world of work (Munro & Senekal, 2019:6). This feedback loop can inform curriculum refinement and teaching methods. It may assist current and prospective students to set realistic career expectations and trajectories based on the experiences of alumni (Munro & Senekal, 2019:4).

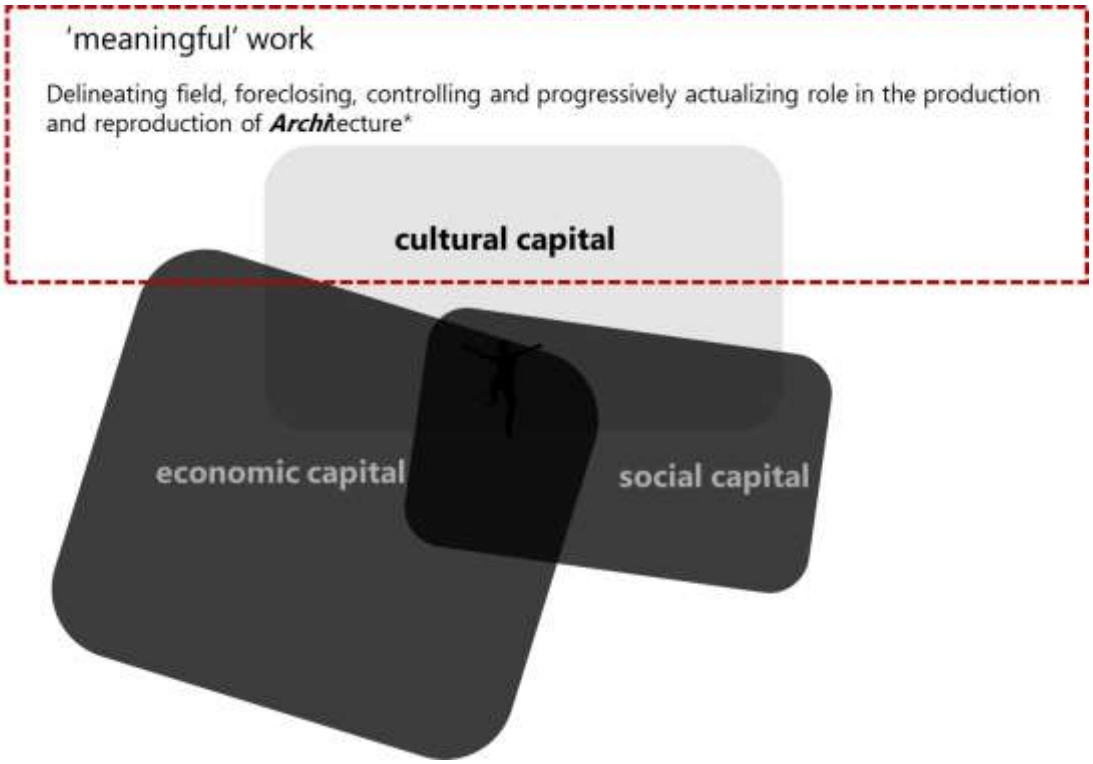


Figure 14: Cultural capital in context of the model for distinction

4.2.1 Rights to define the stakes of the 'game'

Larson's idea - that professions strategically establish exclusive discursive communities to safeguard their authority and prestige, leverage their specialised knowledge and claim to public service to maintain relevance in a competitive market economy were introduced earlier.[184] Building on this and others' view that the professional mandate entailed that the definition of the field, that is, the stakes of the 'game' - in this instance architecture (as discourse and products) - remained the prerogative of 'legitimate' professionals, as a special privilege accorded the profession. Thereby, a distinct, 'legitimate' field can be discerned and contrasted to 'alternate' discourse and product. See *Figure 15*.

Accepting Larson's proposition that professions have special privileges to define their own field and discourse and derived from my preceding understanding of the architecture profession's own societal positioning, I define 'meaningful' work as activities and contributions directed towards visualising architecture, howsoever defined by the legitimated profession of the day, and coopting resources its production and reproduction.

[184] *See1.5.2 A model for distinction on page 33.*

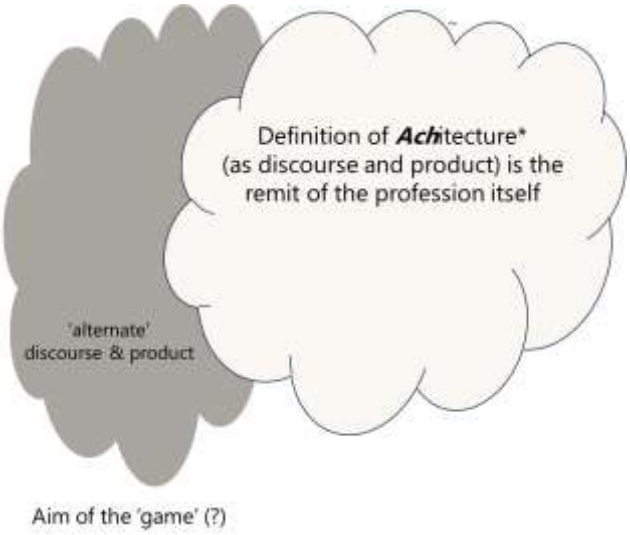


Figure 15: Schematic of the field of intended foreclosure

Alternative discourses and products will be discussed later.[185] For now, I turn to an aspect of the stakes, from the perspective of building work reserved for APs in terms of the Identification of Work (IdoW) provision, as a further example of the profession defining the field.

4.2.2 The stakes as IdoW

Act 44 (26) and (34) respectively made provision for SACAP to identify work to be performed exclusively by RPs and to publish professional fee guidelines. This meant that, contra Larson's theory, APs did not have exclusive discretion in field determination, although they were consulted. It took SACAP until 2009 to table an advanced first draft of an IdoW. This delay was met with criticism as a failure of SACAP to discharge its obligations: until the IdoW was published, the Reservation of Work, legislation surviving the apartheid era, which addressed only the original category 'architect', applied, disadvantaging new RPs categories (SACAP, 2010:65-66). Moreover, the draft IdoW met with a challenge from the Competitions Commission, which stalled its adoption until 2021 (SACAP, 2023:6; CBE, 30 April 2021). To accord with the principles of free-market systems, the state established the Competition Commission, whose mandate, like SACAP's, is the protection of the public, in their case, from restrictive business practices and the abuse of dominant market positions, such as monopolies.[186] The Competition Commission challenged the IdoW and Schedule of Fees so that neither of these mechanisms were operationalised during the period of focus of this study.[187] The debacle laid bare a latent ambiguity: there was a structural incompatibility between the principles of a free-market economy and the monopolistic protectionism of professions at large. Until ~2021, this issue became a site of contestation across nearly all the built environment professional bodies constituted under CBE, including SACAP (CBE, 2018[b]). This finding supports Manchidi and Rwelamila's argument that the government can, by its actions, either promote or obstruct BEPs' legitimation (2019:43).

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[185] *See 4.2.4 Alternate discourse and product on page 105.*

[186] *Similar to the Competitions Board prior to 2000.*

[187] *Subsequently these issues have been resolved.*

4.2.3 Production and reproduction

Returning to Larson's theory again, the production and reproduction of 'legitimate' professionals and architecture is the shared responsibility and prerogative of the professional community of recognised professionals and ALS. See *Figure 16*.

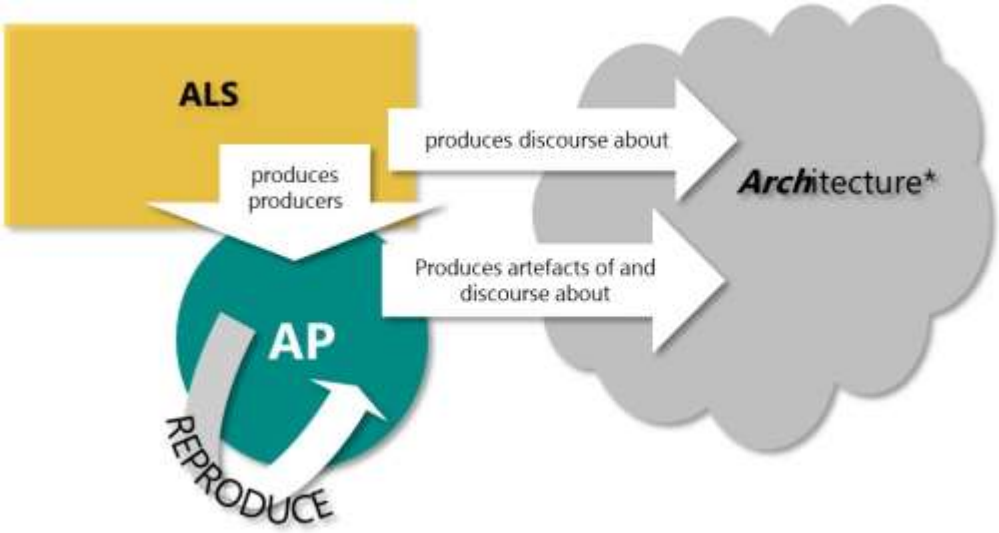


Figure 16: Schematic of production and reproduction of the field

'ARCHIculture', my neologism, is shorthand for the culture which APs immerse into to acquire and transmit habitus. This cultural milieu is conceived as a dynamic interplay of shared and contested dispositions, practises, and symbolic systems. It encompasses the shared materials, experiences, affectations, and traditions that shape how APs perceive, conceive, and transmit architectural knowledge and practises. Habitus serves as the underlying framework through which professional identities are formulated, alliances forged, and aesthetic and ideological discourse negotiated. It is through the medium of ARCHIculture that APs engage in a continual process of cultural exchange, innovation, and evolution, enriching the profession and its discourse while perpetuating and reinventing its traditions and legacies, as habitus, doxa and illusio. This infusion can occur in multiple sites and through multiple mediums, including ALS, workplaces, architecture magazines, VAs, etc.[188] Per Bourdieu, it is not only the content and competency development which renders universities powerful actors in society.

ALS play a dual role. They produce producers (that is, they reproduce APs), and they produce discourse about architecture.[189] Additionally, the university is a critical site for acquiring habitus, shaping students' identities and launching social trajectories (1984). Thereby ALS are an important site of ARCHIculture. They also play a crucial role in the

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[188] *Assumptions are that you can gain access, know where to look, and are inducted into understanding the symbols and signs.*

[189] *For Bourdieu, "practical mastery is transmitted through practice, in a practical state, without rising to the level of discourse" through mimicry embodied as habitus (1990:73-74).*

profession as upstream gatekeepers, and powerful shapers of the pipeline demographic.[190]

Established professionals also contribute to cultural capital production and reproduction in the field. They transmit legitimate habitus to newcomers by exposure to work and practice, and by contact, through employment, internship, and mentorship.

In the scheme illustrated in *Figure 17,* the South African state is designated regulator of 'legitimate' professionals, their discourse, and their artefacts, arising from its political mandate, as protector of the public and the environment. In addition to SACAP, there are other state actors active in the field, such as the local authorities and the National Regulator of Compulsory Standards (NRCS), who jointly enforce municipal by-laws and the National Building Regulations and Standards Act 103 (Republic of South Africa, 1977).

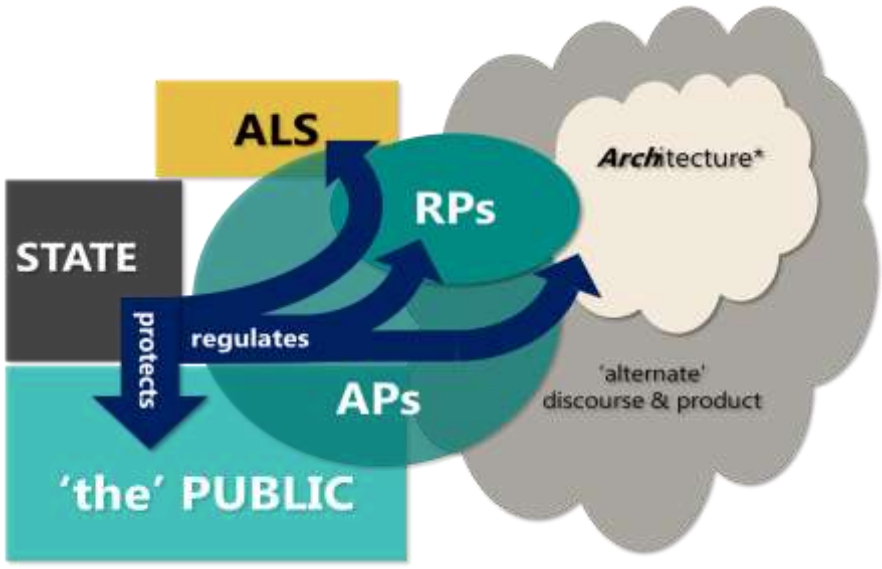


Figure 17: Schematic of the role of the state in the field

4.2.4 Alternate discourse and product

Whilst defining the stakes of the game was contested in IdoW, it was evident that between ~2000 and ~2019 there was a thriving production in alternate discourse and product, operating 'outside' the ambit of the legitimated field, in which artefacts of the built environment were theorised, conceived, manifested, operationalised and inhabited with little or no involvement of RPs. Many structures were undertaken without local authority approval,[191] or with APs' engaged only in order to secure such approval. Alternate discourse and products included works undertaken by engineers and developers (factories, warehouses etc.), informal dwellings, owner-build projects, and

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[190] *See 4.4 Social Capital and Gatekeeping on page 119.*

[191] *For example, temporary structures (carports, Wendy houses, backyard structures, informal settlements); public sector buildings (for which submission of courtesy copies of architectural drawings was the only requirement); buildings on lands bequeathed to traditional authorities under permission to occupy (PTO) certification (see Poswa, 2024); and building works executed without formal permissions through ignorance of law or by extra-legal arrangement.*

state housing schemes.[192] Even where RPs (or APs, more generally) were involved, there was often a ceding of roles traditionally part of the scope of services[193] to individuals in adjacent, complementary, or competitive vocations.

Ludick (2024) analysed land use, estimating the percentage of buildings based on the number of structures using a point-based dataset (GeoTerraImage, 2023). The land use classes were categorised as rarely (🚫), sometimes/partially (√), and nearly always (√) associated with RPs' involvement per building typology. See *Figure 18*. This analysis was performed for South Africa using Esri®'s ArcGIS Pro® software. This very high-level estimate found that while ~44% of South Africa's building structures seem to be undertaken with RPs, ~38% are not, and ~17% sometimes are. While a more thorough study would be valuable, particularly in identifying the profession's specific 'needs', this suggests considerable flexibility within the current market where APs could potentially play a greater role.

A conclusion can be drawn that task fragmentation and specialisation provided opportunities for participation, technically outside the monopolising jurisdiction of the legitimised institutional arrangements or classical operating models. This resulted in field fragmentation that impeded aspirations (per Larson) for monopoly and control, as represented in *Figure 19*. The rise of plan runners,[194] design managers, construction health and safety, sustainable or green building practitioners, 3D CAD[b] modellers, renderers and visualisers, construction project management experts, and an emerging field of AI prompting were testimony to a tendency for productive specialisation under capitalism.[195] International research has observed similar fragmentation, noting that as the profession evolved, there was increasing reliance on various specialists, confusing roles and responsibilities, thereby contributing to a loss of professional and personal value among architects (Möller & Fernando, 2024:3; Burr & Jones, 2010). Evidence of such confusion could be seen when SACAP introduced an additional category for 'building control officer' (2019).

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[192] *Whereas there appears to be a need unmet by local practitioners. For example, the South African Cuban Technical Support Program (SACTSP) was introduced to tackle the urban housing backlog and enhance human settlements. Established through a bilateral agreement, the program recruited Cuban Technical Advisors (CTAs) to provide essential technical support for implementing the People's Housing Process (PHP) and other housing projects. The SACTSP's primary objectives are accelerating PHP project implementation, facilitating knowledge sharing among engineers and architects, promoting community participation inspired by Cuban practices, and employing innovative, cost-effective methods to improve project efficiency (Mukhadakhomu & Khumalo, 2019).*

[193] *A dominant example of services is set out in the Guideline Professional Fees (SACAP, 2011[a]).*

[194] *Plan runners are specialised couriers who facilitate the submission of drawings for approval at local authorities from multiple APs. Their immersive presence at municipal offices means they can generally attend promptly to matters arising and ensure the efficiency of the approval process. Sometimes, based on their proximity and social capital, they can identify and engage officials willing to expedite approvals for undocumented financial considerations.*

[195] *The 'Babbage Principle' observes the correlation between innovation and the technical segmentation of labour, involving specialisation within the capitalist framework. Individuals engaging in high-skill tasks earn wages proportional to their skill level, even if they also routinely perform tasks of lower complexity. By distributing the labour process among multiple workers, costs could be minimised by assigning high-skill tasks to higher-wage workers while allocating low-skill tasks to those compensated at a lower rate.*

Contemporaneously, SACPCMP introduced a category for ‘building inspectors’ (SACAP, 12 November 2021), and the respective regulating bodies had to issue a joint statement clarifying the distinction.



Figure 18: Photocollage stakeholders (left), ‘product’ types, and where APs rarely (🚫), sometimes/partially (√) and nearly always 'play' (√) Source: Photo images Peta de Jager and Coralie van Reenen with assistance of Freepik Image Generator AI. Architectural drawings of school, with permission A3 Architects. Elevation of a standard house plan, with permission of Richitect.

Manchidi and Rwelamila (2019) suggested that reserving professional work and establishing clear jurisdictional boundaries could lead to a more structured professional environment for BEPs. This structure would promote retention by providing a sense of security and legitimacy for professionals who were recognised within their defined roles (Manchidi & Rwelamila, 2019:36). Conversely, the authors also cautioned that overly rigid boundaries could lead to attrition, as professionals could feel constrained or marginalised if they perceived their roles as being too narrowly defined or were unable to adapt to changing industry demands (Manchidi & Rwelamila, 2019:36).

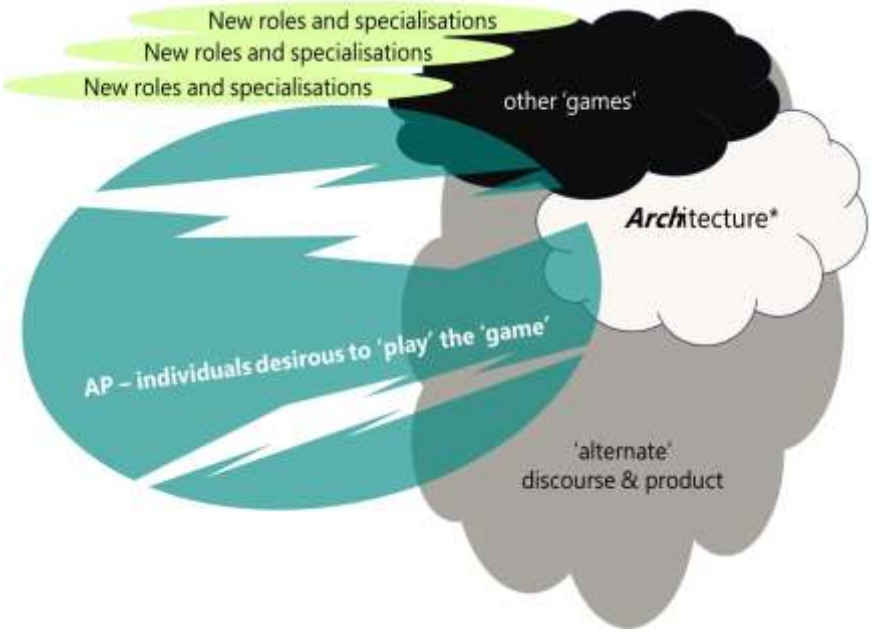


Figure 19: Schematic of the field fragmentation

4.2.5 Building production volumes from 2000 to 2019

To review what was objectively accomplished by the architecture profession from ~2000 to ~2019, I present a consolidation of StatsSA time-series data (2024[b]) reflecting municipal approved plans. Whilst there were exceptions,[196] local authority plan submissions were required to be signed off by a competent person with the relevant professional registration, and therefore, the plans approved stand as a reasonable proxy for local work undertaken. An analysis of the floor plan areas by building type, as recorded by local municipal authorities, revealed that in 2000, approximately 23 million square metres of construction work were completed, with a significant portion being residential. The volume of construction sharply increased, reaching a peak around 2008, after which it fell back to 2000 levels, remaining stagnant until 2019. See *Figure 21*.

Similarly, a review of the construction costs disaggregated by building type showed that about R30 billion was invested in building activities in 2000. These costs escalated rapidly, reaching an apex in 2008. Despite a reduction in square metre area built over the next four years, construction costs continued to rise until 2019, outpacing inflation and persisting even though less construction was taking place. See *Figure 20*.[197] Gross

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[196] *For example, some local authorities were oblivious to this requirement (SACAP, 2012:7), and building work sometimes proceeded without submission of plans. StatsSA data distinguishes between plans passed and works completed (2024[b]). This analysis considers actual built, even though APs may not be involved through the building process.*

[197] *This growth in building until 2008 can, arguably, be attributed to a stable socio-economic and political landscape, growing business confidence, and an infrastructure investment drive related to South Africa's hosting of the FIFA World Cup in 2010. In 2008, which marked the onset of the international financial crisis, the rise of corruption allegations levelled at the government, the construction industry and others was compounded by international rating agencies' fiscal downgrade of South African stocks.*

domestic product (GDP) per capita was widely considered a robust measure of economic performance, and the economy was often cited as a reason for a lack of available work. There was some relationship between GDP per capita and construction costs until ~2014 (see inset), after which construction costs continued on their upward trajectory, whilst GDP per capita stagnated, implying that construction became relatively less affordable.

An analysis of the number of building plans approved by local municipalities has several important shortcomings as a proxy for cultural capital production. These data speak only to volume and not to quality of work, it speaks only to accomplishments in building production volumes and not to other capital accumulation and does so in the narrow confines of the nation's borders.

Nevertheless, the decline in construction volumes following the 2008 global financial crisis and rising construction costs suggested a reduced affordability of infrastructure investment and a challenging environment for APs. The analysis showed highly competitive conditions with virtually no growth in production, measured as square metres built (StatsSA, 2024[b]), presumably reflecting virtually no growth in demand, despite a burgeoning population (StatsSA, 2022) and a continuing entry of new graduates to the field. See *Figure 8*. The volatility in construction volume and costs reflected the profession's exposure to broader economic and political externalities. Yet, there is also evidence of market misalignment. For example, although the data above suggests that housing represents a significant market for APs, Saidi (2006:184-185) found that housing was not adequately addressed in education.

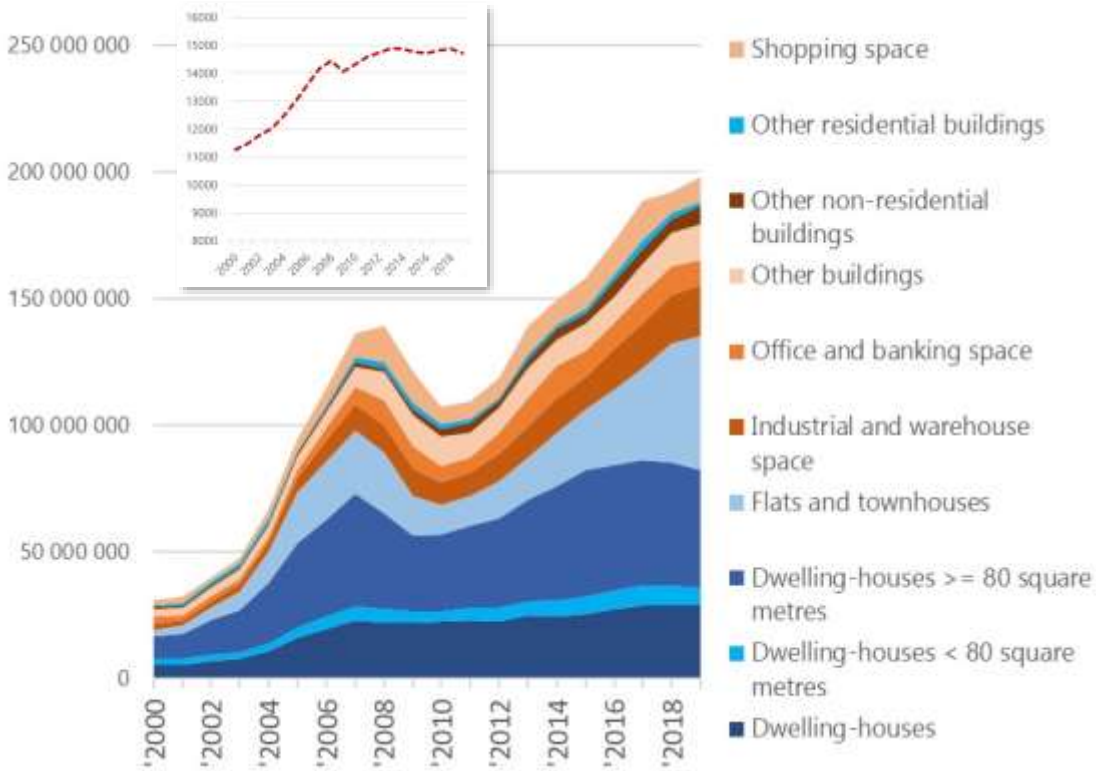


Figure 20: Construction costs 2000 to 2019 by building type (R.'000) (StatsSA data: visualisation by author). Inset GDP per capita, PPP (constant 2021 international $) (World Bank data)

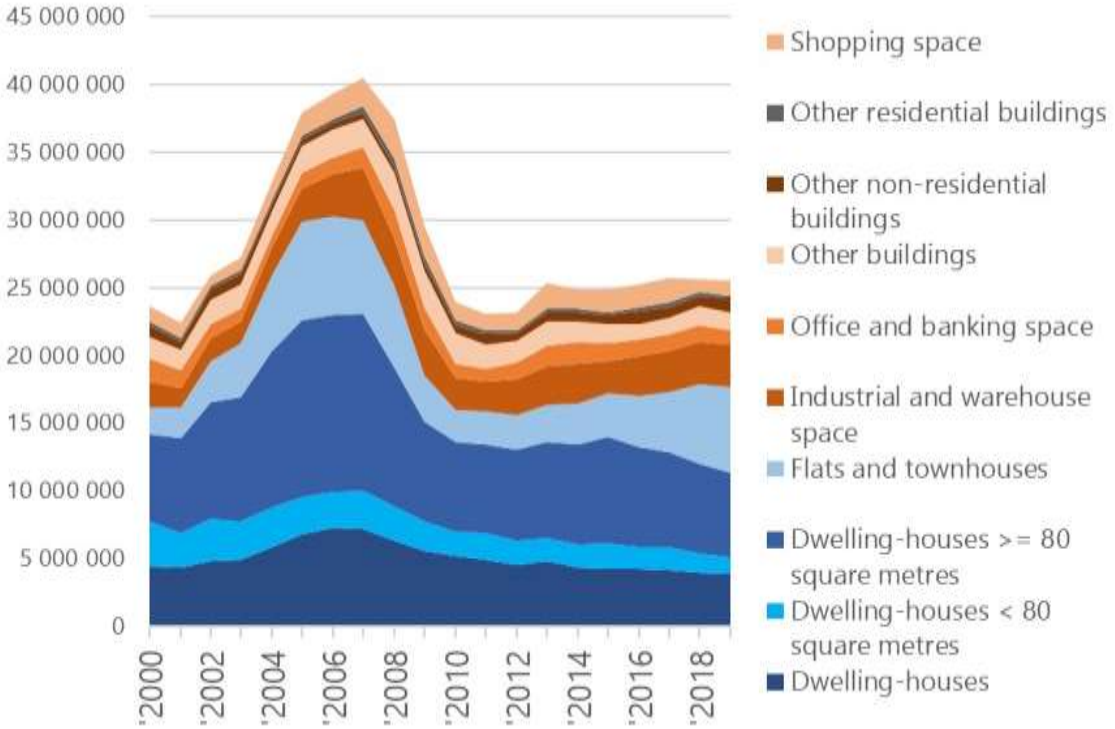


Figure 21: Areas of completed works 2000 to 2019 by building type (square metres) (StatsSA (2024[b]) data: visualisation by author)

4.3 Symbolic Capital, Titles and Entitlements

According to the model of distinction, symbolic capital is confined in this study to titles and entitlements on the one hand and celebrity which can be discerned through awards and visibility in the media on the other. See *Figure 22*. In this section, the titles and entitlements, media visibility, and winning design competitions are discussed as instances of symbolic capital.

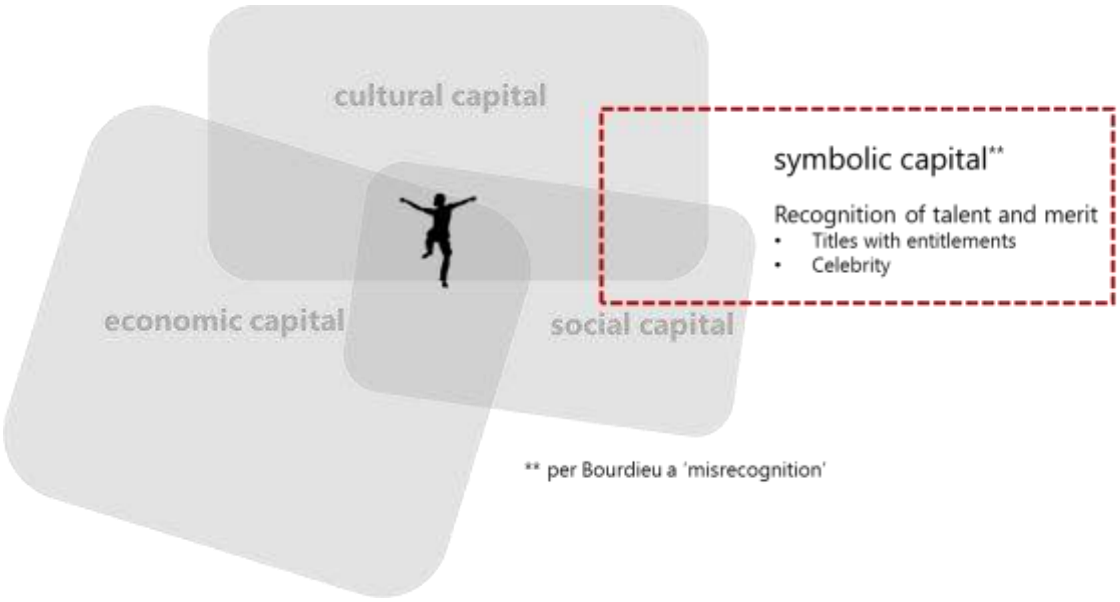


Figure 22: Symbolic capital in context of the model for distinction

4.3.1 Name-calling

According to Bourdieu (1990:131-132), titles confer honour and prestige upon individuals who possess them, elevating their status within the social hierarchy and reinforcing the power dynamics of the field in society. Granting exclusive recognition to certain designations is a tactic to valorise those who hold these titles, solidifying their influence and authority in the professional realm as symbolic capital (Borthwick & Boyce et al., 2015). For Bourdieu symbolic capital is a misrecognition of other forms of capital; for example, professional titles conceal their debt to economic investment, misrepresenting them as indicative of talent or merit~

> *...symbolic capital is credit, but in the broadest sense, a kind of advance, a credence, that only the group's belief can grant those who give it the best symbolic and material guarantees, it can be seen that the exhibition of symbolic capital (always very expensive in material terms) is one of the mechanisms which (no doubt universally) make capital go to capital.*
>
> (Bourdieu, 1990:120)

Act 44 introduced three new professional categories, and subsequently, additional special categories were added. These categories made visible pre-existing roles in architectural practices and endorsed status stratification, potentially entrenching

existing hierarchies.[198] The changes also disrupted traditional power dynamics within the field, transforming historic symbolic capital. Expansion of professional categories allowed a broader range of individuals to be recognised, to gain legitimacy and authority, enabling underrepresented groups to advance. It also authorised institutions, some of them merged in the post-apartheid restructuring of higher education, to produce multiple qualification types and streams in the same field, so decoupling the formerly strict association between institutions and credentials.[199] This redistribution of capital created opportunities for new entrants, challenging established expectations within the field (Bingham, 9 April 2024).

The schema of conversion of qualifications into the registration category (and the associated status) became significantly more intricate between 1994 and 2004. As shown earlier,[200] navigating this landscape was not intuitive. Depending on the institution and year of graduation, a bachelor's degree might have entitled the holder to register as a candidate architectural technologist or a candidate senior architectural technologist, or it may have sufficed for a candidate architect. After candidacy, the 'streaming' was more straightforward, with the candidate category matching the professional title. Likewise, the malalignment of the professional registration categories with academic credentials, which are signified by qualification letters following a name, did not provide reliable cues to appreciate the relative status as discerned from within the profession itself.[201] According to the key informant (Lamb, 8 October 2024), to the lay public, the proliferation of professional titles after ~2000 with the concomitant entitlements/restrictions to practise amounted to 'too much detail'. To many members of the public, the imperative to belong to SACAP was not known, or if it was known, nuances of its categories or the associated entitlements (for example, as envisaged in the IdoW) were not widely appreciated. Compounding this was confusion as to disparities in fees quoted and even the methods by which fees were calculated (Lamb, 8 October 2024).[202]

SACAP have variously endorsed the use of specific suffixes to denote professional titles: 'Pr. Arch' for architects, 'PSAT' *or* 'Pr.Arch.ST' for professional senior architectural technologists, 'PAT' *or* 'Pr. Arch. T' for professional architectural technologists, and 'PAD' *or* 'Pr. Arch. Draught' *or* 'Pr. Arch. D' for professional architectural draughtsperson.[203] To wit, the relative status of the professional designations was not inherently apparent to the uninitiated, which led to category confusion and conflation and incorrectly attributing

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[198] *See Monopolising tendencies before ~2000.*

[199] *See 3.2.2 ALS rise to prominence on page 62.*

[200] *See Table 2: Registration requirements (source: SACAP, 2019c) on page 23.*

[201] *An example is that the 'old' Bachelor of Architecture (B. Arch) is sufficient to access the 'Architect' stream, whereas a Bachelor of Architectural Studies (BAS) is associated with 'Architectural Technologist'. See also Table 2 and related discussion.*

[202] *For example, some practitioners are prepared to quote per square meter, whereas others will use a percentage of the building cost for fee estimates.*

[203] *For example, Board notice 27 of 2021 S9 and S10 compel APs to use Code of Conduct titles. Act 44 stipulates categories but does not furnish any acronyms.*

higher status to categories accessed via lesser qualification or experience.[204] Since most people do not require architectural services, the changes in qualification structuring, and the disconnect between qualification and title would remain a curiosity, except that the prohibition on titles did not extend to terms such as ‘architectural designer’ and ‘architectural technician’. When seeking professional services, less experienced clients were likely to encounter practitioners using these titles or signalling services rather than titles ,, thereby circumventing the formal profession. See *Figure 23.* This was exacerbated when RPs were reluctant to engage in marketing due to concerns of violating the professionals’ doxa prohibiting solicitation of business.[205]



Figure 23: Popular marketing techniques of architectural services in Houghton, one of Johannesburg’s most affluent suburbs

Compounding title confusion was the appropriation of ‘architect’ and related terminology from the late 1980s onwards to the growing digital and information technology field. as the terms ‘systems architect’, ‘software architect’, ‘enterprise architect’, solution architect, data architect, cloud architect, network architect, ‘[cyber]security architect’, ‘technical architect’, ‘domain architect’, ’ UI/UX architect’, among others,grew from obscurity into everyday use (Bryant & Maes, 2008).[206, 207]

Most anglophone territories have restrictions in place on the use of similar professional titles. However, the detail of prohibition varies. The Architect’s Registration Board in the United Kingdom distinguishes between social and professional settings. The use of the title is precluded in the second, but not the first instance.[208] The practical difficulties of incentivising or enforcing the use of professional titles to promote registration extend beyond South Africa.[209]

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[204] *Nel (and others) are especially concerned that if ‘Pr Arch Draught’ is shortened to 'Pr Arch D', it can be erroneously, though logically, interpreted as signifying a doctoral degree instead of a draughting certificate/diploma.*

[205] *As discussed in 4.3.2 (In)visibility of the profession in media on page 115.*

[206] *Though not (yet) recognised phrases in the Merriam-Webster Dictionary (9 August 2024).*

[207] *In the UK this would be in violation of law (Architects Registration Board, n.d.).*

[208] *Using the title ‘architect’ and whether to stay on the Register: FAQ's (Architects Registration Board, n.d.).*

[209] *See 3.3.4 Architecture, gender and race on page 79.*

Very recently, a practice has emerged in South Africa whereby credentialed architects are increasingly adopting the prefix 'Arch.'[210] before their names, a movement spearheaded by key informant Krynauw Nel (12 December 2023) and the Gauteng Institute for Architects (GIfA) Practice Committee, and in long existence in India, the Philippines, Ghana and elsewhere. According to Nel, this approach intended to enhance clarity regarding professional title and standing while offering the added benefit of gender neutrality and avoiding the disclosure of marital status typically associated with traditional titles like 'Mrs.' or 'Ms.' For an illustration of the application of prenominal titling, refer to *Figure 24*.

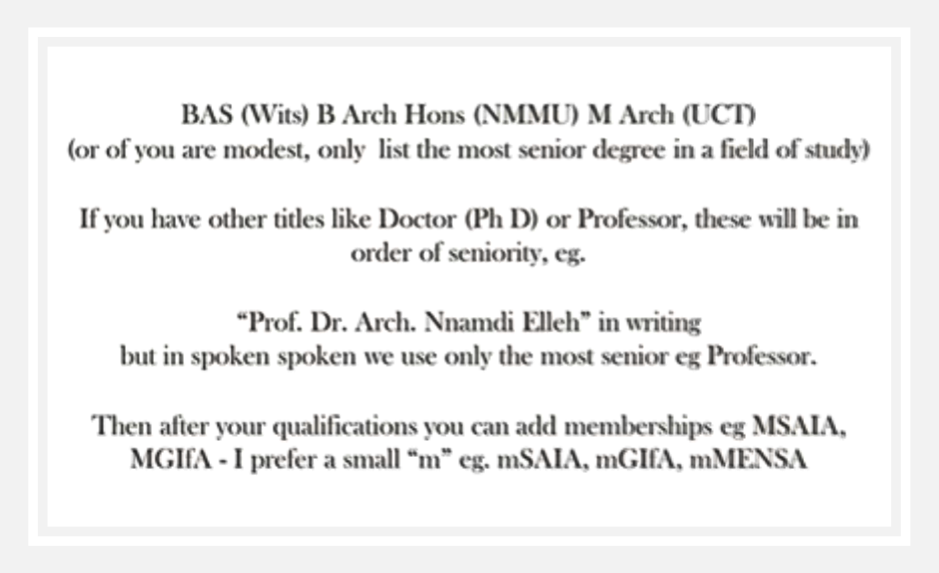


Figure 24: Use of the prenominal to distinguish status (Image courtesy Arch. K. Nel)

The employment of the prenominal may offer a more naturally understandable approach for the general populace. It can be contended that the term 'architect' is safeguarded in South Africa when prefixed with 'professional' by Act 44. Thus, in the absence of definitive regulatory guidance on the subject, it is conceivable that the use of the prenominal may be embraced by various parties, even beyond its proponents' intentions.[211] The introduction of multiple titles, their dissociation from qualifications, and their choice of abbreviations have obscured the relative status which would naturally arise by virtue of the differences in access, time, and cost investments associated with the different categories. In the opinion of Nel (12 December 2023) and other key informants (Lamb, 8 October 2024), this obscurity provided a disincentive for APs progression since little additional status advantage accrued by professional advancement.

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[210] As practiced in Latin American, Italy, Spain and Portugal, but not generally in Commonwealth territories.

[211] The practical difficulties of limiting title use is illustrated by the recent situation involving TikTok influencer Matthew Lani (BBC News, 2023), where difficulties were encountered in shielding the public from misunderstandings regarding his professional qualifications, when he was widely (and erroneously) held to be a medical doctor.

Unauthorised use of titles[212] can be reported to SACAP, which, since ~2014, in cooperation with the South African Police Services, has sought to prosecute offenders. After 2017, it secured several court convictions, with severe penalties, to demonstrating capability in foreclosure of titles and entitlements (SACAP, 25 July 2023; SACAP, 3 April 2024).

Based on document analysis and key informant interviews, this section argued that introducing new categories disrupted status experienced within the field with and produced opacity from without. The relationships between qualifications, categories, titles, designations, competencies, legal entitlements to practise and presumptive status were decoupled. The failure and difficulties to enforce title restrictions were identified as a contributing disincentive to registering or pursuing professional advancement. Emerging initiatives from the field were attempts to restore symbolic capital through prestige and titles, by simplifying and clarifying the relationships between qualifications, competencies, legal entitlements to practise (on the one hand), and credentials, titles, and designations (on the other). However, evolving needs and competing interests regarding curricula, accreditation, and alignment with overarching local and international frameworks, treaties and agreements, may continue to complicate this objective.[213]

4.3.2 (In)visibility of the profession in media

The potential role of media in raising the profile of the profession and mediating attrition, retention or transformation,[214] did not emerge as a factor in the literature survey.[215] Yet, research indicated that the media played a significant and evolving role in developing perceptions and stereotypes about occupations (Ward, 2020:186; Sharma, 2015; Wroblewski & Huston, 1987). The media also had a potential role in stimulating public discourse on architecture (Parnell, 2011), for example, by circulating images which imbued the built environment with cultural significance (Frampton, 1986) or generating discussion on sustainable development.

Buildings designed by renowned architects, sometimes referred to as ‘starchitects’, were thought to have the capacity to enhance the visibility and attractiveness of a location, leading to increased tourism and business opportunities (Muschamp, 1997). Iconic architecture could serve as a catalyst for economic activity and urban development (Hübscher, 2021). However, scholars have pointed out that the durability of such

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[212] Which includes previously registered persons not in good standing with SACAP (for example those who have not paid fees).

[213] See 6.4 Symbolic à Economic Capital on page 223.

[214] The portrayal of professions in the media provides a useful mirror of how broader society perceives professions, professionals, their work and conduct: media plays a role in shaping and mediating these perceptions (Ward & Grower, 2020). Where the profession is portrayed positively and accurately in the media, it may enhance the public recognition and appreciation of the profession, increasing the capital and the sense of belonging of the practitioners or inspiring building activity (grow markets). It may attract people to join the profession or retain professionals as the field gains a reputation as a desirable and rewarding career. Negative or inaccurate media portrayal may damage the public trust and respect for the profession. It could decrease its social and cultural capital, making it seem risky or unrewarding, with diminishing pride or desire to be associated with or to belong to the field.

[215] See 3.3 Current Perspectives on Retention, Attrition, and Transformation on page 67.

symbolic capital seems to be contingent on the building gaining traction for its cultural function (Alaily-Mattar & Baptist et al., 2024) and have raised concerns about potential negative impacts of such initiatives such as gentrification and spatial justice (Hübscher, 2021).

From time to time the South African profession acknowledged qualifying members through industry merit awards,[216] and publisheda dedicated DHET-accredited digital journal, ArchSA, but this may have been inclined to the form of an echo chamber.[217, 218] APs' impulse to distinguish and isolate their field (Banham, 1991; key informant, anonymous 2, 2 July 2024) and to be autonomous may be counterproductive. Bourdieu anticipated this, writing of 'production for producers'~

> *in rejecting the market … cultural producers in the restricted sub-field are left pretty much to talk to each other. It would be difficult to overstate the importance of the idea of autonomy from the field of power in Bourdieu's sociology of cultural production. It is central to Bourdieu's account of the development of modern culture-making. He aims to show that the autonomy of art and literature is not a transcendent and universal condition.*
>
> (Hesmondhalgh, 2006:214)

Anecdotally, there was a scarcity of South African and African celebrity architects recognised locally and internationally, and an observed lack of visibility in media and social media platforms, and an associated lack of understanding and appreciation for the profession and its work.

Key informant Keitsitse Losaba noted~

> *There are many exhibitions and awards and the humble projects that some professionals barely get looked at. There are also buildings that are well known and still I feel the public doesn't understand the profession; they think we design pretty pictures. I think most people who know architecture are more interested in residential; they don't understand that we actually shape the spaces you occupy and create the sense of belonging with our designs.*
>
> (Losaba, 30 June 2024)

Digital and social media marketing can offer APs platforms to showcase their work through portfolios, project updates, and client testimonials to broad audiences. They can provide opportunities for APs and architecture firms to curate their brands, position their work and attract potential clients at lower cost than previously possible. Some social media channels are particularly effective for visual content, and architects can engage directly with stakeholders through social media, generating interaction, fostering relationships building trust, and renewing content as desired (Dwivedi & Ismagilova et al., 2021). Although these could lead to referrals and repeat business, they could connect preferentially with advantaged audiences, for example, by algorithms, neglecting or

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[216] Sandra Felix pointed out that (per her focus group participants) SAIA awards often required self-nomination, which is not a natural inclination among modest individuals, particularly among black^ women (CUBES Faces of the City Seminar, 16 July 2024).

[217] SAIA's digital publication, ArchSA (available at https://saia.org.za/page/publications/archsa) targeted a primary audience of Pr.Arch, candidates and architectural students; with other architectural categories of registration, built environment professional, general public its secondary audience (email communication, SAIA Marketing, 5 July 2024).

[218] In essence, the field is 'talking' effectively only to itself.

alienating certain stakeholders. As South Africans are among the most enthusiastic digital media users in the world (Kemp, 2023), digital and social media would seem to be a valuable resource for APs to generate social and cultural capital, which could potentially accrue at individual, practice, and field levels.

No published market data was located. However, according to key informant, reputation and influence specialist Santos-Van Vuuren (4 July 2024), there is little active conversation in South Africa on social media about architects or architecture. Moreover~

> *[I]n professions where most of the participants/experts see themselves as artists - self-promotion is loathed. Those who do it in their field are seen as not being true to the "unspoken law" in the profession. I see it in advertising all the time, the old guard hate owning their success.*
>
> (Santos-Van Vuuren,4 July 2024)

Reticence among many APs to market themselves, per doxa, has international and historical roots (Wright, 1949; Hornbeck, 1999), and was in evidence in contemporary South Africa (Grosskurth, 2008). That there are divergent opinions and uncertainty as to whether marketing is legally or ethically permissible, discerned through various key informant interviews, is a notable finding of this research. For example, a candidate architect notes~

> *I wouldn't go as far as call it illegal. Also depends where you are advertising in my opinion. Because a lot of professionals are now advertising on Facebook, LinkedIn and Instagram. And wouldn't we recognise a website as a form of advertising? I would say bad taste but depends where it is being advertised. Projects advertise when they put up a board that names all the consultants involved. I think it's a serious grey area.*
>
> (Mojanaga, 17 July 2024)

This confusion possibly reflects hysteresis in doxa and illusio and an evolving code. The professional code of conduct in place in 1999 expressly prohibited the promotion of services (SAIA, 1999).[219] The "*Architectural Profession Act: Code of Professional Conduct*" of 2009 was silent on the promotion of services. The "*Code of Conduct for Registered Persons*" from 2021 includes a specific section (Rule 3) dedicated to the honest promotion of services, implying (though not stating) that marketing is no longer taboo. SAIA's most recent Study Aid (SAIA, 2023) advised APs to prepare a mission statement, and a business plan, incorporating a marketing plan, without further elaboration.

My survey findings, as discussed later,[220] lend strong support to the observation that media was not well-leveraged for the benefit of the profession. This marketing reticence was compounded by a vilification of starchitects, particularly within architectural circles (Meyer & Wiggin, 2014; Heynen, 2012), since it could be argued that despite criticism, starchitects possess untapped potential to generate social, symbolic, and cultural capital for the field. Moreover, whilst the starchitect concept is challenged because APs do not operate alone, in a setting where >40% do operate as solo practitioners (SAIA, 2020:8), the applicability of the concern is questionable. Given these factors, it could be

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[219] *Except for stationery, practice signage, and project information boards which could be erected at construction sites according to prescriptive specifications including font size, typeface, and margins.*

[220] *See Portrayal in society and media on page 164.*

useful to reassess attitudes towards starchitects and explore avenues for nurturing exposure and securing public acclaim for local talent locally and internationally. Despite not being identified explicitly in the literature on attrition, retention and transformation of the profession, the lack of visibility and appreciation of the profession was a recurring theme in this research, and therefore worth critical reflection.

4.3.3 Transformative potentialities of architectural design competitions

Symbolic capital might be won through the architectural design competition. Furthermore, the design competition could be viewed as a rite of passage for the architectural works becoming 'public', akin to literary works being published (Lipstadt, 2003:408). For Lipstadt, the architectural design competition is unique among state-regulated professions, likely to be considered preposterous and intolerable among, for example, doctors and lawyers (Lipstadt, 2003:396). Lipstadt contends that the raison d'être for early modern design competitions in Europe was to provide an alternative to architectural commission allocation based on the lowest bidder[221] and posits the year 1401 as its genesis (Lipstadt, 2003:402). Architectural design competitions possess transformative potential, foster innovation, and forge opportunities for emerging talent to gain recognition (Lipstadt, 2003:404). They can serve as a platform for architects to assert their artistic autonomy, aligning their practice with that of artists who operate in a field of cultural production, momentarily liberated from the mundanities of economic pursuit (Lipstadt, 2003:404). Competitions can impose significant costs on participants, likely most onerous on the historically disadvantaged, leading to a perception of them as necessary evils or unnecessary burdens. There is also a supposition that 'losers' often actually win, as designs that are too innovative for first place may later be recognised as worthy or benefit from the attendant publication or exhibition exposure and ambient cultural capital associated with the event (Lipstadt, 2003:404).

It also alludes to the idea that the hype and controversy generated by competition can stimulate exposure in the public realm, generate a broader understanding of architectural issues, and forge connections between architects and the public (Lipstadt, 2003:404). For Lipstadt, competitions "are constituted as a structural configuration of objective relations between and among positions and position-takings" (Lipstadt, 2003:409), characterised by ongoing struggles over the field -to define the rules of entry and evaluation, of penalty and reward. The stakes are cultural authority, and the outcome is the field's transformation. For Lipstadt, architectural design competitions are akin to carnivals, with a capacity to "invert the habitual real and symbolic orders, offering opportunities for the young, weak and dominated, apprentices among them, to taunt, humiliate and even mildly punish the old and the powerful" (Lipstadt, 2003:411). Critics and historians who attribute a winning project solely to a singular author are complicit in distorting historical narratives by denying the collaborative nature of creation and the role of the jury, program, publication, exhibition, and competition history as co-contributors. Participation is evidence of a collective willingness to collude to maintain the illusion of creative genius (Lipstadt, 2003:413).

SAIA advocated for architectural competitions to foster interest, pride, and achievement in public and private sector projects (SAIA, n.d.) whilst conceding that processes before 2015 were costly, time-consuming and onerous (SAIA, 2015[b]). It identified advantages to

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[221] *Contra, for example, Laryea and Watermeyer et al. (2020) lowest bidding is identified in this thesis as both a barrier and burden to the field, fuelling attrition.*

architects and clients/sponsors which related to cost, time and, for architects, "Fair adjudication through a jury of peers". Laryea and Watermeyer (2021) proposed that architectural design competitions may function as a viable procurement process aimed at getting an excellent design product without inflated fees. RIBA (2021) had a broader perspective on the transformative capacity of architectural competitions, finding them a means to showcase diverse ideas, inspire creativity and innovation, achieve high design standards, assemble appropriate teams, foster interaction and stimulate debate between important stakeholders, community organisations, and the public. They could enhance the visibility and reputation of the project, client, and design team. Moreover, they could provide a more level playing field, thereby providing platforms for new talent to emerge. In these ways, architectural competitions seemed to hold transformative promise for the profession, for engaging the public in discourse on the built environment, and for providing a platform for community and public participation.

As pointed out by Felix (CUBES Faces of the City Seminar, 16 July 2024), being eligible to participate in awards is dependent on being represented in the field in the first instance. As black^ individuals and women are underrepresented as RPs[222] and in the VAs,[223] their eligibility and likelihood of winning was diminished by simple probability. The VAs had traditionally played a significant role in legitimising architectural competitions and in controlling who was permitted to compete. Aligning with UNESCO competition rules, it published competition guidelines. SAIA's code of ethics bound its members and prevented them from entering architectural competitions not approved by them (SAIA, 2015[b]). However, membership to SAIA was voluntary, and by SAIA's estimate, only three per cent of its members secured work by competition in 2019 (2020:50). The fate of selected architectural design competition between ~2000 and 2019 in South Africa will be further explored later.[224]

4.4 Social Capital and Gatekeeping

According to the model for distinction,[225] social capital in this study relates to developing status in society and among peers, which can be discerned, for example, by accumulating experience, progressing along the prescribed path, positions in practice/firms, and maintaining freedom from unfair discrimination or prejudice. See *Figure 25*. Building on the pipeline schematic presented earlier,[226] APs' endeavours to accumulate social capital are conceived in the analysis below as a pipeline with phases and portals structured to accumulate experience and set a social trajectory progressively.

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[222] *See 2 → 3 – candidate to professional on page 125*.

[223] *See The role of VAs and other professional membership groups on page 130*.

[224] *See Design competitions on page 222*.

[225] *See 1.5.2 A model for distinction on page 33*.

[226] *See 4.1.1 Professional progression as a pipeline on page 92*.

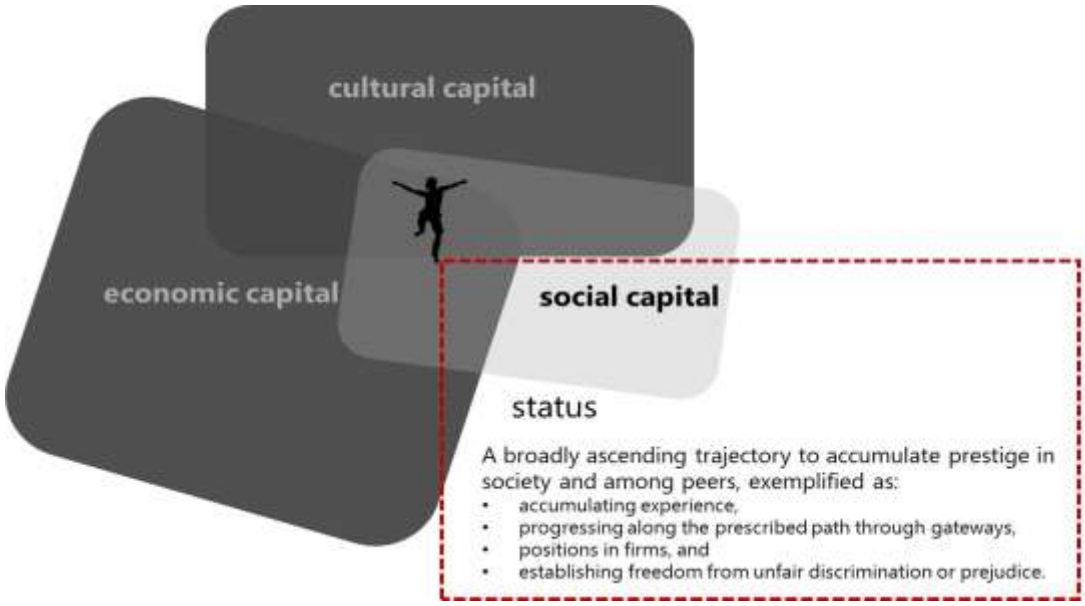


Figure 25: Social capital in context of the model for distinction

4.4.1 Portal structuration of the field

Whilst there are multiple alternative pathways to access and advance through the profession, there is a predominant route, and this is discussed here as a series of portals available to build social capital, which are subject to control and gatekeeping. Inherent protection, elitism, and status are associated with cooperating with, and, occasionally, for a few accomplished players, transgressing, the 'rules of the game' (Bourdieu, 1990:104-105). Doxa suggests that entering the pipeline and progressing through the series of gateways or portals implies near assurance of achieving an ascending trajectory of status accumulation in the field. Failure to follow these prescribed paths could result in a penalty, failure to progress, or even exclusion from participation in 'legitimate' discourse and the production of architecture.

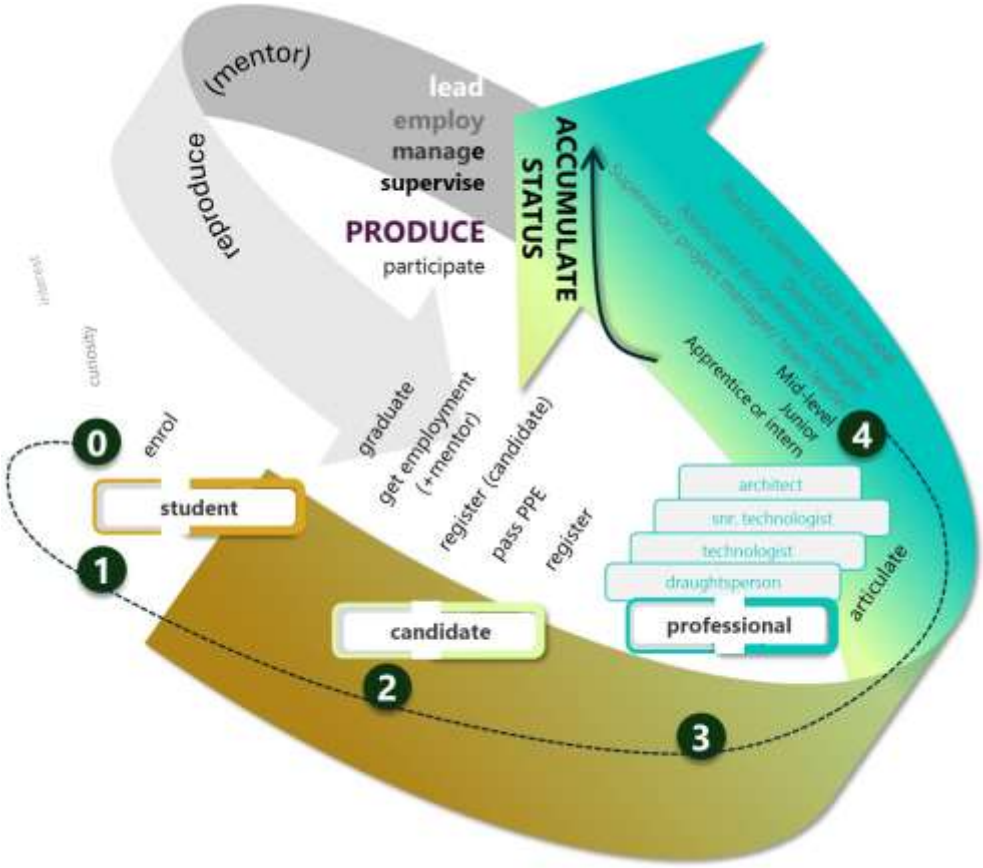


Figure 26: Social capital accumulation on a generic AP career trajectory

APs' professional journeys generally begin at 'Portal 0' with enrolment in an ALS.[227] From this point onwards – as shown in *Figure 26* - APs internalise the norms and practises of the professional field, shaping their habitus.

'Portal 1' marks the inflection point of graduation from ALS either with a certificate, diploma, graduate degree or postgraduate degree. 'Portal 2' marks the transition to the workplace as a newcomer or candidate. This phase is characterised by the accumulation of capital through field immersion, networks, relationships, and the continued development of one's professional habitus. In the workplace, APs accumulate capital and negotiate a place in the field. After satisfying the prescribed experiential learning requirements, APs may then progress from candidature to recognition in the legitimising structures as possessing full professional status by passing the prescribed PPEs at 'Portal 3'. Thereafter, APs may proceed from a lower to higher professional status via further qualification(s), RPL, LSD or special consent in a process called 'articulation' via 'Portal 4'. Each of the portals is now discussed.

[227] *See 3.2.2 ALS rise to prominence on page 62.*

0 → 1– enrolled student to graduate

Before 2007, the Bachelor of Architecture (B. Arch) degree was a single five or six-year programme (SAIA, 2023). Few students of the era progressed to postgraduate studies, which were not required for registration or practise. Thereafter, most ALS programmes were restructured. This generally took the form of an undergraduate degree (three years), an honour's degree (one year), and a master's degree (one year),[228] with many ALS strongly encouraging students to work in a practice environment before enrolment in the masters' degree (Botes, 2018:31).[229] This revised structure facilitated exit at several points, enabled transfer between institutions, permitted streaming (for example to professional or technology stream), aligned with the NQF, and international degree structures.[230] It supported, and was necessitated by, the added professional categories introduced in Act 44. Thereby, this adjustment was intended to enhance accessibility and flexibility as one of many transformative instruments for the profession (SACAP, 2010:8-9).

As a consequence of the apartheid era exclusion of black entrants to universities, discussed earlier,[231] there was still only a very meagre pipeline of black^ APs at the onset of the millennium. 'Born-frees'[232] would start graduating from high (secondary) school in about 2012, although even before this, the pipeline began racially transforming. As an indication of pipeline transformation, the first universal opportunity to access ALS programmes in 1995 (immediately following the first democratic election) would have been eligible for Pr. Arch registration in 2002. The first born-frees would be eligible to enrol in the Pr. Arch category in 2020. However, the apartheid segregation of primary and secondary schools entailed that black^ schools had been significantly less well-resourced than white schools (Kallaway, 2002; De Villiers, 2023; Vergottini, 2023), leading to a concern about university-preparedness of black^ matriculants, especially in the early part of the millennium (Subotzky, 2010:25). Moreover, as alluded to earlier,[233] studying architecture may not even have occurred to the majority who had never even encountered APs. A faculty member involved in the oversubscribed selection of applicants for the BAS undergraduate degree at the University of Cape Town between 1998 and 2001 wrote~

> *The evolution of Architecture as a profession has resulted in an elitist image, remote from the sweat and dirt of construction. The chances of craftsmen and the massed experience of the labour force informing the process is diminished. Add to this the polarising effect of colonisation and apartheid, the development of a South African society, culture and economy that is simultaneously First World and Third World, and the whole situation of Architecture as a profession in South Africa is exacerbated. It is little known or understood and seldom contemplated as an option amongst the previously disadvantaged vast majority.*
>
> (Murray, 2001)

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[228] *See Appendix B – validated qualifications in 2019.*

[229] *Interview feedback.*

[230] *See Prestige of degrees on page 239.*

[231] *Refer to 3.2.2 ALS rise to prominence on page 62.*

[232] *Colloquial term for those born in South Africa after the first democratic elections of April 1994.*

[233] *Refer to 3.2.1 Pre-democratic tabula rasa on page 60.*

In the late 1990s and early 2000s, tertiary academic institutions introduced various bridging programmes aimed at addressing the educational disparitiesfaced by disadvantaged students (Essack & Quayle, 2007; Megbowon & Palesa, 2023, Janse Van Rensburg, 2015:10).[234] These programmes, with various titles and strategies, such as Extended Curriculum Programme, University Access Programme, and Foundation Programme, were designed to facilitate equal access to higher education, providing students from socio-economically impoverished backgrounds with the necessary support to succeed academically (Hay & Marais, 2004; Case & Marshall et al., 2013) by bridging 'the gap' between secondary and tertiary education (Curtis & Wikaire et al., 2017).

Successes were noted, alongside challenges such as social stigmatisation and inadequate academic support (Essack & Quayle, 2007; Megbowon & Palesa, et al., 2023), illuminating the complexities of implementing these policies effectively. The University Access Programme aimed to facilitate access for underperforming students, but while it succeeded in increasing enrolment, many students faced significant challenges once admitted, particularly in terms of academic support (Sekonyela, 2021). Similarly, academic mentoring programs at institutions such as the Faculty of Humanities at the University of KwaZulu-Natal, showed promise, as students from disadvantaged backgrounds reported improved academic performance and adaptation to university life (Tshishonga & Matse, 2023). The broader educational context remained problematic, with many students lacking essential academic literacy skills necessary for success in higher education (Sebolai & Huff, 2015). Few studies were found on local ALS bridging programmes (with the exception of Janse Van Rensburg, 2015) although they are not unprecedented (Botes, 2018). However, mixed results seem to have been experienced by ALS, according to the Faces of the City Seminar (16 July 2024) and an anonymous informant (anonymous 5, 29 July 2024).

Although there was a widely held belief that the distortions regarding preparedness would naturally resolve over time,[235] as investment equalised, the quality of education system evened out, and born-frees filtered through the university system; there was also a hysteresis effect in tenured faculty relinquishing habituated racial biases.[236]

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[234] Underprepared, unprepared, or at-risk (Essack & Quayle, 2007:1).

[235] For example, Van Wyk (2002) circumspectly noted the following in relation to resistance to transformation in SAIA: "[T]here is a greater problem that requires our committed attention, and that has to do with a recalcitrant tendency to view colleagues in our profession in terms of them and us. It is time that we cease devising schemes to circumvent equity shareholding – whether it be through the roster system or through shell companies - and get on with the business of ensuring that our practices, at shareholder level, are reflective of our society. The graduates setting up practices now will, by virtue of their shared experiences at university, probably overcome this problem at the outset. However, current practices would do well to reflect seriously on this need and take a long-term view of the situation".

[236] Many ALS faculty, mostly white and predominantly male, welcomed the changes required following the democratic elections. For others, bias (sometimes unconscious) enculturated through habitus formulated in the deeply segregated society of apartheid (often including conscription which inscribed significant and enduring racially charged attitudes and biases) did not disappear magically.

Moreover, there was a lag in the transformation of faculty so that faculty remained predominantly white~

> *At no point at that time [first-year university], did I recognize, hmm, is it weird that I have four white males over the age, at that point, over 45 leading the studio. It wasn't a thought in my mind because I had gone through education where I only had white educators…. I didn't gauge it as problematic… in reflection… because it was an accepted norm for me. I don't believe that it has been detrimental to me personally. However, I do recognize other people of colour, other students of colour, other women at that time did feel that to be an obstacle in their development.*
>
> (Davis, 29 April 2024)

ALS admission between 2000 and 2019 could inadvertently have been susceptible to gatekeeping or bias (Botes, 2018:142). In addition to secondary school results, and in line with international practise (Goldschmidt & Sebba et al., 2002) ALS accepted first-year students, based on matric results and variously, interviews, entrance exams, portfolios or assignments. Whilst ostensibly in place to determine merit and aptitude, some of these procedures were discretionary, unvalidated and therefore, at least theoretically, subject to bias. For example, interview and portfolio review processes may have posed barriers to entry for prospective students from previously disadvantaged backgrounds, requiring resources and know-how compatible with habitus associated with more privileged backgrounds (Lombard, 2009), for example, on how to compile a portfolio. Furthermore, individuals who had the opportunity to attend art lessons, generally not offered in former black schools, may have a significant familiarity with the tacit rules associated with putting a portfolio together. Applicants whose first language matched university mediums may have had more aligned interview and language skills. Well-meant entry procedures may thereby have played a role in field reproduction, disproportionately disadvantaging the historically disadvantaged. However, universities and other institutions were also confronted with increasing scrutiny and pressure to diversify (King, 1998; Janse Van Rensburg, 2015).

At the beginning of the 2000s, although universities had become open to all races, the number of matriculants achieving university exemption and meeting other entry requirements from previously disadvantaged communities was very low (Cronje, 2010; Le Roux, 2014). This shortage, alongside moderate (but potentially diminishing) resistance to transformation pressures (Archer, 2017) and gatekeeping practises, was met with policies aimed at diversifying both the student body and faculty. Although initial pipeline disparities had gradually eased, demographic representativity issues persisted up to 2019.[237]

In addition to having powers to accredit credentials, SACAP had expectations regarding the demographic profile of university admissions.[238] In 2010, SACAP placed a moratorium on the RPL process, pronouncing it the remit of the ALS (SACAP, 2011), envisaging that

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[237] *Refer to 4.1.1 Professional progression as a pipeline on page 19).*

[238] *SACAP is mandated in terms of sections 13 (a) and (b) of the Architectural Profession Act 44 (Republic of South Africa, 2000) "subject to sections 5 and 7 of the Higher Education Act 101 (Republic of South Africa, 1997a), to conduct accreditation visits to any educational institution which has a department, school, or faculty of architecture, but must conduct at least one such visit during its term of office". The Council has powers to conditionally or unconditionally grant, refuse, or withdraw accreditation to an educational institution and programmes in architecture.*

they would make provision for admission of holders of NQF level 6 with over 10 years' experience into degree programmes. However, according to key informant Mandisa Pepeta (11 June 2024), no institutions had implemented an RPL access route to date, as criteria had not been defined. Pepeta ascribed this to inertia and reluctance to embrace change, as other university departments in different disciplines had implemented such programmes. A second type of RPL, outside the ambit of ALS, is available and is discussed later.[239]

1 → 2 – graduate to candidate

Upon graduation (and occasionally without first obtaining a qualification), many individuals enter the professional field as employees to accumulate social, cultural, and economic capital and assimilate a professional habitus. Accumulating experience propels the newcomer onward in their professional journey to enable or frustrate them to operate with increasing effectiveness and status within the field.

Anecdotally, opening one's own practice without first being employed by others was possible in brief moments in the past,[240] but has been rendered systemically improbable by SACAP's prescription to register first as a candidate. Candidates are obligated to obtain monthly training records (MTRs)[241] ratified by a mentor. For most wishing to convert their academic credential into symbolic capital (titles and entitlements) verification of this experiential learning entails finding employment. Graduates compete for places and resources within the professional field, which has its own hierarchies and power structures. Graduates often need to acquire or strengthen their capital to adapt to and thrive in their new settings. They may resist, challenge or simply endure symbolic violence, for example where the dominant group, that is the professional establishment enforces its norms and values on newcomers. Confrontation can be a positive process that allows graduates to refine and assert their own identities and values, or not. Women and black^ APs may be more lacking confidence and less inclined to assert themselves.

A consequence of apartheid was the acute shortage of black^ graduates emerging into the workplace, particularly from postgraduate programmes which were required to access higher professional registration categories (Dominguez-Whitehead, 2017) in a context where new opportunities arose from a pressing need for demographic diversification. Positions in academia, the public sector, and business required stakeholders, particularly credentialed shareholders and employees, who embodied the values of the new non-sexist, non-racist democratic ethos of the post-apartheid dispensation. In the first few years after new democratic elections this scenario, part of a broader formation of a new black^ bourgeoisie class (Freund & Padayachee, 1998:1178-1179), saw the very limited pool of APs from historically disadvantaged backgrounds fall short of demand. Therefore, until the first demographically representative graduate cohorts trickled into the job market, attractive opportunities for African practitioners from Nigeria, Ghana and other, chiefly anglophone, SADC territories, as well as the few locally trained APs, became available.

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[239] *See 3 → 4 – advancing through the ranks on page 127.*

[240] *As exemplified by the trajectory of star architect, Mokena Makeka (Dawes, 2010).*

[241] *MTRs are an electronic version of logbooks, which were kept by apprentices dating back to the previous dispensation.*

According to Young-Pugh, in the early 2000s~

> *[M]any established practices restructured to avoid displacement or marginalization by [targeted employment and procurement] policies. To ensure suitable representation, larger firms are encouraged to collaborate with one or several 'equity partners' from previously marginalized groupings. On many public projects, several firms are appointed as project collaborative or association. Johannesburg based architect Glenn Gallagher supports these initiatives: there is no doubt that the sharing of work between white and black firms working in association helps in the transfer of skills (in both directions) and contributes enormously to the understanding, respect and goodwill that each of the various population groups have for each other.*
>
> (Young-Pugh, 2005:35)

A consequence of this was that many of the initial black^ practitioners, academics, role models and mentors were not necessarily South African. Not all graduates followed the path of proceeding from ALS into candidacy. Statistics indicated that there was a significant attrition after graduation when APs went off to do something other than further degrees in the field, sometimes never returning.[242] Not all graduates immediately registered, as some took a break or pursued other interests. Key informants Naidoo (24 December 2021), Bingham (9 April 2024) and Davis (29 April 2024) all observed that, after finishing their degree, many graduates simply felt ambivalent about what to do next and uncertain as to what their options might be. Therefore, in addition to career guidance recommended at school,[243] further counselling in the later stages of architectural studies, especially undergraduate studies may be a vital intervention to enhance the conversion rates of graduates into candidacy. Indhul's book "*Architects' Stepping Stones*" (2017), is a useful resource for new entrants into the field to orientate themselves in the world of work but is little known. Key informant Christo Vosloo has pointed out there is sparse local material to guide APs in their professional options~

> *The SAIA manual (Section 2: Practice Organisation) unfortunately contains only limited information regarding the style of firm from which architects can choose the advantages and disadvantages of each, and related aspects … that can guide many future decisions.*
>
> (Vosloo, 2017:20)

Some graduates have reported that their ALS provided little or no exposure to the world of work or to compiling curricular vitae (Kekelwa Okombela, SACAP Youth seminar, 19 July 2024). In some ALS, the preparation of a CV may be a graded project, and practitioners may be involved, attending studio sessions and exhibitions, bridging the gap between academia and the world of work.

2 → 3 – candidate to professional

Using the applicable SACAP annual reports*, Figure 27* consolidates registration statistics in time series, distinguishing between candidates on the SACAP register (on the left) and RPs (on the right) to show a pipeline of potential RPs. These are shown per professional category, per race and gender. The predominance of white individuals is visible, as is the predominance of males, in both the candidate and professional categories. It can be seen that the most elite category Pr. Arch is a significant, though variable, portion of the register, whereas the corresponding candidate category is proportionally smaller.

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[242] *See 4.1.2 Losses in transition from graduation to registration on page 98.*

[243] *See 3.3.1 Student attrition, retention and transformation on page 67.*

Another observation is the high variability from year to year for both professionals and candidates. Upon completion of the requisite MTRs, candidates may write PPEs to convert their candidacy status to professional status. PPEs are administered by SACAP, with materials and preparation support provided by VAs. PPEs were presented by SACAP as two papers[244] applicable to all candidates, with draughtspersons requiring only Paper #1. Statistics on demographics were not collected before 2019. SACAP's annual reports had changing protocols for reporting progression from candidacy, did not reflect PPE success factors, and did not record how many examinees were repeating the attempt.

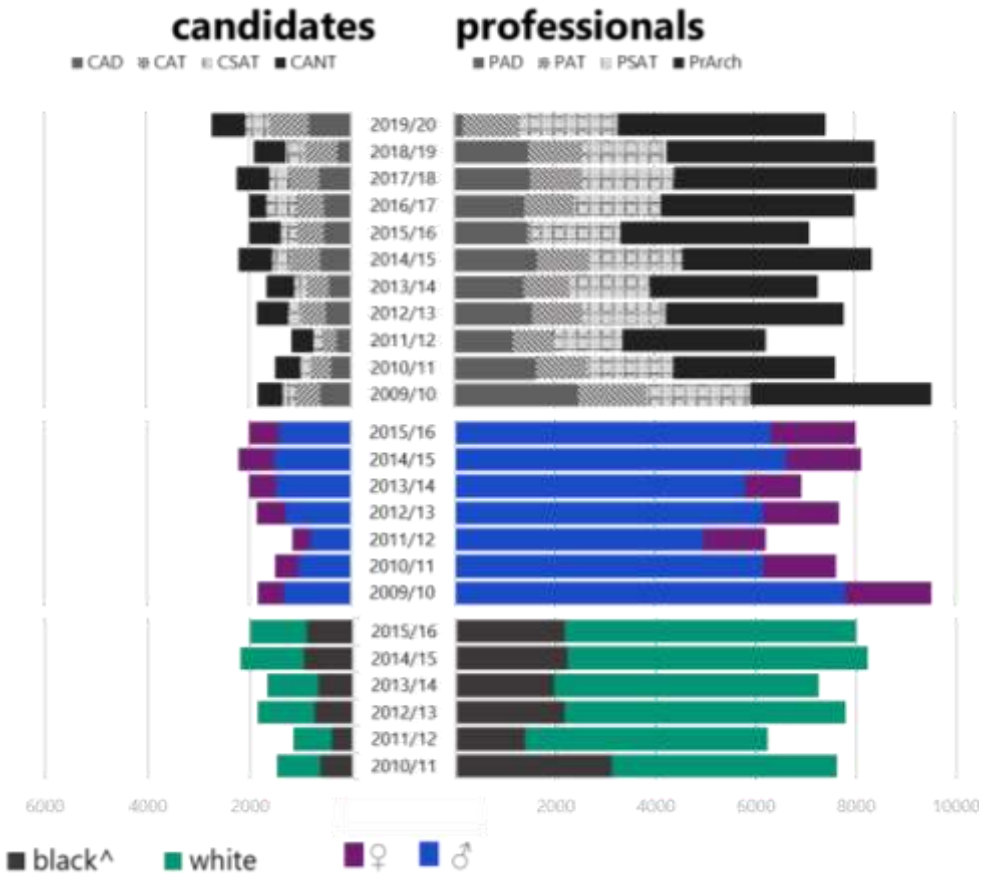


Figure 27: Registered candidates (left) → professionals (right) by race, gender & professional category (SACAP data)

However, after observing that candidates were failing to progress for extended periods without progressing, SACAP began to deregister individuals staying in candidate categories for more than four years (SACAP, 2017). SACAP's statistics for May 2021 showed significant variance in PPE success in that 221 and 190 candidates passed Paper #1 and #2 examinations, achieving a pass rate of 85% and 78%, respectively.[245]

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[244] *Covering topics such as The Architectural Professional as Practitioner, The Architectural Professional and their Office, The Provision of Architectural Services, Dispute Resolution and Construction Procurement and Contracting.*

[245] *This general outcome is similar for other examination sittings for which data was made available.*

The overall pass rate for black candidates was 64%, and 96% for white candidates. The overall pass rate of female candidates was 93%, and 76% for males.

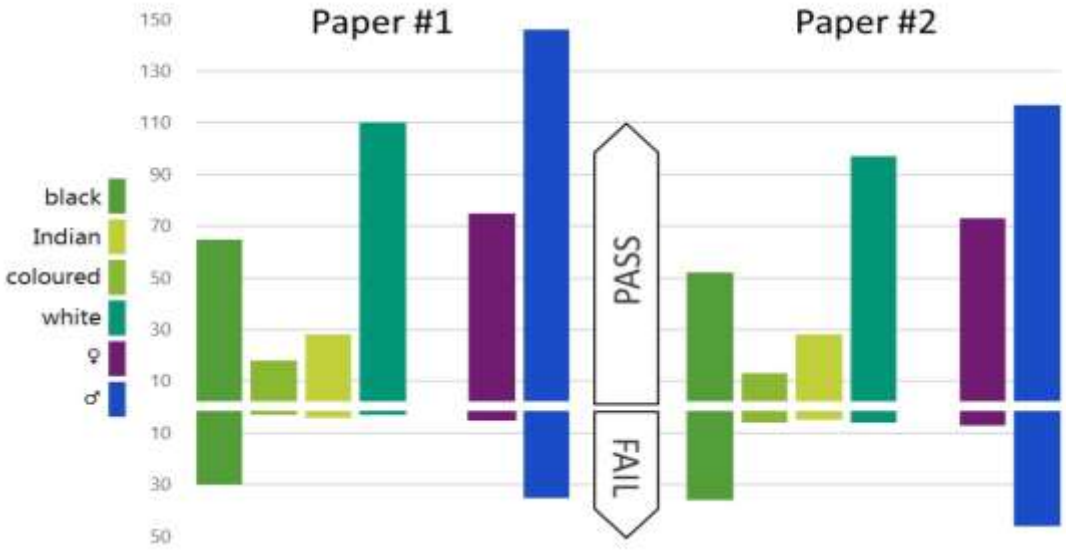


Figure 28: PPE exam results May 2021 (Data SACAP)

As shown in *Figure 28*, these data show that fewer women attempted the exam than men. These results further indicated that unsuccessful examinees were more likely to be from rural provinces, without a resident voluntary association and with less inherent wealth concentration,[246] than from Gauteng, Western Cape, or KwaZulu-Natal. The effect of failure on subsequent exit from the profession is not known. SAIA's most recent "*Study Aid*" aimed to prepare candidates for PPEs and to serve as a reference for newly registered persons (2023:3). Apart from referencing the current legislation, it covered broadly similar topics as the 1999 "*Practice Manual*"; rules, codes of conduct, types of companies and how to set them up, office management, advice on hiring and managing staff, notes on contracting with clients, managing risk and liability, professional indemnity, contracting with clients, and setting fees. Both iterations were silent on how to secure clients.

3 → 4 – advancing through the ranks

Among discretionary instruments introduced and administered by SACAP after 2000 to improve access and advancement in the formal profession were RPL, special consent, and limited special dispensation (LSD) (SACAP, 2012; SACAP, 2013). The RPL pathway was introduced into architecture, as in other professions across South Africa, to promote post-apartheid equity, access, and redress. The "*White Paper on Education and Training*" envisaged that RPL~

> *will open doors of opportunity for people whose academic or career paths have been needlessly blocked because prior knowledge has not been assessed and certified, or because their qualifications have not been recognised for admission to further learning, or employment purposes*.
>
> (Department of Education, 1995:9)

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[246] *Though numerically rare, some of the most celebrated local architectural works were undertaken in rural settings. (See, for example, Mapungubwe Interpretation Centre in World Architecture Festival, 2009).*

Thinkers such as Khalema regarded its significance as emancipatory from the "confines of neocolonial praxis in a way that will demand decolonial justice by eradicating epistemic violence through RPL" (Luckan, 2021). As such, it was positioned as a novel instrument for transformative change. However, data suggests that this mechanism did not deliver substantively on these objectives: over the two decades studied, this route to entry and progression was estimated to account for less than one per cent of registrations.[247] Little is known about RPL before 2009. In 2010, similar to the previous year, SACAP reported 13 RPL[248] applications, of which 10 were from males and 10 from whites. Less than half (46%) of these applications were successful. In 2010, a moratorium was placed on RPL, which was lifted in 2017. After 2019, SACAP resumed reporting RPL outcomes with demographic attributes. Using 2023 data, when RPL application outcomes were reported in detail, success rates were visualised for gender

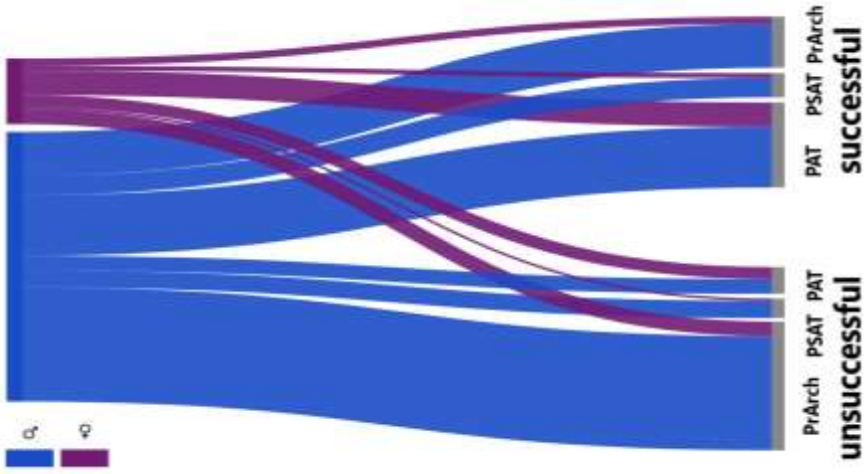


Figure 29: Sankey RPL outcomes per gender and registration category, 2023 (SACAP data: visualisation by author)

(*Figure 29)* and for race (*Figure 30)*. The majority of applicants were white males. The articulation from draughtsperson (PAD) to technologist (PAD) and technologist (PAD) and from technologist (PAD) to senior technologist (PSAT) was relatively successful, while the articulation to the most senior category was the least successful. Therefore, RPL was not the transformative instrument envisaged by its proponents. Key informant Pepeta (11 June 2024) participated in the adjudication of RPL applications and observed the following. The submissions were of highly variable quality. Preparation was required for the compilation of the application portfolio, and it appeared that time was not adequately invested or managed. According to Pepeta (11 June 2024), black^ applicants embedded in rural and township economies were more likely to take on many projects and not to have the resources or time to prepare thoroughly. Moreover, she contended, black^ applicants may be more inclined to lack confidence in the assessment setting.

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[247] *Based on my calculations using 2019 to 2023 SACAP data and SACAP annual reports, accounting for a moratorium was imposed on RPL between 2010 and 2017.*

[248] *"'Recognition of Prior Learning' as defined by South African Qualification Authority as of March 2019, means the principles and processes through which the prior knowledge and skills of a person are made visible, mediated, and assessed for the purposes of alternative access and admission, recognition and certification, or further learning and development".*

This resonated with the concept of habitus. A targeted intervention to increase the number of black^ and women RPL applicants and to provide support in understanding and responding to a portfolio of evidence requirements, especially for the architect category, may improve the instrument's effectiveness.

Notwithstanding the low numbers of RPL cases, other routes to legally performing restricted categories of work were introduced. In ~2012, special consent, applicable to employees, and limited special dispensation (LSD), applicable to practice owners and directors, were introduced as mechanisms "for SACAP to grant an applicant permission to carry out a type of project [per IdoW]… outside the applicant's category of registration" (SACAP, 2021).[249] In 2022/23, SACAP reported that 603 LSD applications were received, making it four times more popular than RPL applications and approaching 80% of the volume of undergraduates produced. Of 308 LSD applications assessed, 285 were successful. As the published data do not include demographic details or outcome assessments, the effectiveness of LSD as a catalyst of transformation in the profession could not be assessed.

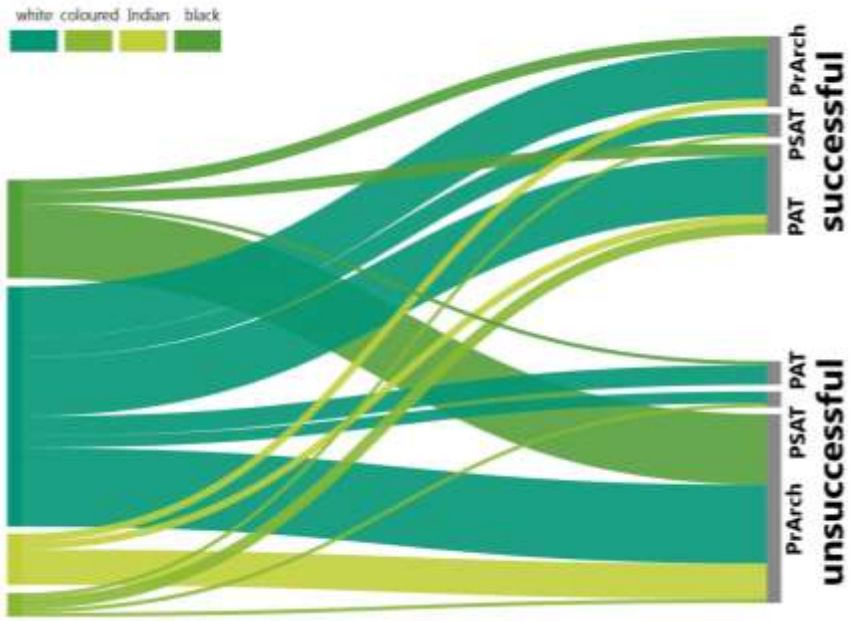


Figure 30: Sankey RPL outcomes per race and registration category, 2023 (SACAP data: visualisation by author)

4.4.2 Discretionary social capital

Homophily

There is a theory that people feel more at ease, have a greater sense of belonging, and have a propensity to stay in learning and working environments where demographics are congruent and where mentors and role models have similar race and gender characteristics (Gurmessa & Ferreira et al., 2018; Lawrence, 2014). Some scholars warn against the presumption that superficial markers such as gender or race may be critical

[249] *Defined as "the process of aligning one's architectural practice to the SPM within a specified timeline, which is a different dispensation from any previous dispensation".*

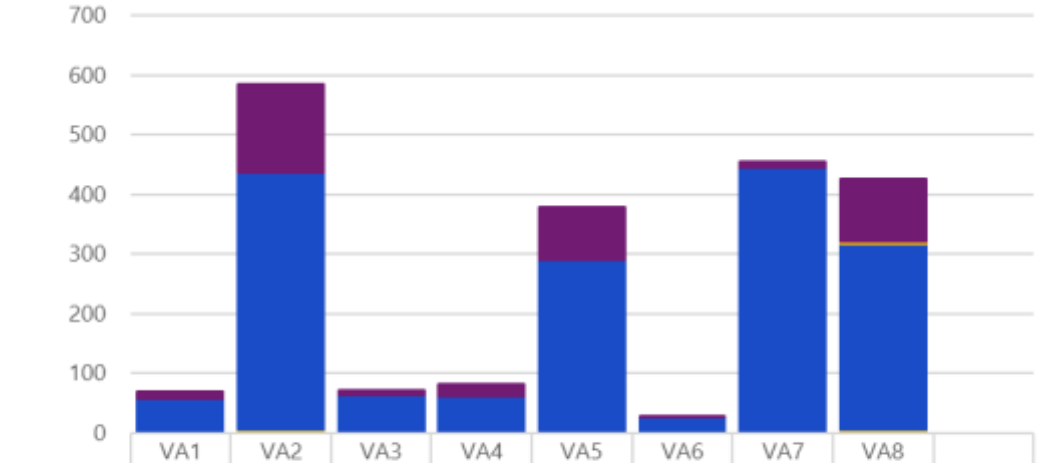
for all individuals (Gonzalez, 2016; Grissom & Keiser, 2011). Bourdieu's theory highlights that social networks could be susceptible to homophily, where individuals connect with others who are like them in terms of background and habitus, crowding out under-represented groups and exhibiting biases or discrimination themselves. They could thus become legacy chambers for the amplification of the dynamics and hierarchies of residual power, perpetuating historically dominant narratives and power structures within the profession and thus replicating and reinforcing inequalities (Dasgupta, 2011).

However, according to models (Murase & Török et al., 2019) and social research (Bohnet, 2016), social networks transition from homophily to diversity through a critical phase transition influenced by the number of features (F) individuals possess. Initially, when F is below a critical threshold (Fc), individuals form strong ties with similar others, resulting in well-defined, segregated communities. As F exceeds Fc, individuals begin to connect across different communities, leading to partial feature matching and increased diversity within the network, characterised by overlapping affiliations and reduced homophily. Based on the above, the anticipated post-apartheid trend would initially see only a few individuals available or willing to hire, mentor, be mentored by, or integrate others outside their social group into discretionary networks (such as VAs). However, this participation would gradually expand over time.

The role of VAs and other professional membership groups

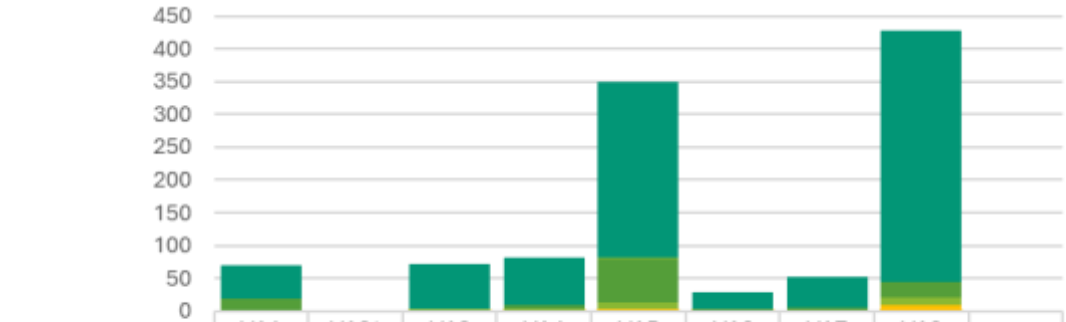
As discussed earlier,[250] societies of architects have a very long track record in the profession and, together with other professional membership groups have a potential role to play in developing social capital through social networks. As social networks, VAs can be useful in building social capital. They could be especially helpful for new entrants to the profession to get exposure to more experienced individuals, provide a forum to share resources, promote solidarity, and support empowerment.

[250] *See 3.1.4 Voluntary associations on page 59.*



	VA1	VA2	VA3	VA4	VA5	VA6	VA7	VA8
♀ PrArch	14	147	9	20	89	3	10	107
♀ CANT	0	1	0	0	0	0	0	3
♂ PrArch	55	431	62	61	285	25	444	311
♂ CANT	1	5	1	1	4	1	0	6

Figure 31: 2019/20 VA membership demographic statistics per gender (Source SACAP)



	VA1	VA2*	VA3	VA4	VA5	VA6	VA7	VA8
White PrArch	51		68	72	268	25	47	382
Coloured PrArch	0		2	0	2	0	0	0
Black PrArch	17		1	7	66	3	6	24
Asian PrArch	1		0	2	10	0	0	12
White CANT	1		0	0	3	0	0	8
Coloured CANT	0		1	0	0	0	0	0
Black CANT	0		0	1	1	1	0	1
Asian CANT	0		0	0	0	0	0	0

Figure 32: 2019/20 VA membership demographic statistics per race (Source SACAP data)

However, only a fraction of RPs belonged to VAs. Although incomplete, SACAP-supplied data indicated that in both gender and race terms, voluntary association membership were not representative of the nation's demographics, as shown in *Figure 31* and *Figure 32*. Overall, 27% of VA members were women, and 17% were black^. Moreover, the data indicates that only one per cent of members were candidates.

Mentorship

Mentorship is institutionalised in the field. Well-mentored newcomers may acquire their professional habitus more readily, emulating behaviours, assimilating attitudes, and beliefs, and reproducing the skills and expertise of the established professional

community. They gradually master their 'feel for the game' and foster their sense of belonging in the field. In Bourdieusian terms, mentors can foster a sense of belonging in the field by enhancing mentees' ability to generate cultural and social capital and by demonstrating and imparting habitus, doxa and illusio. Thus, mentorship becomes a valuable means of reproducing the field. Mentors, being at liberty to participate, may select mentees based on principles of concordance, which could be based on shared values, kinship, or anything.[251]

The transition from apartheid to a mixed social environment provided expanding opportunities of fostering connections across diverse backgrounds. This diversity could enrich the learning experience, and promote creativity and innovation through the exchange of varied perspectives. However, mentors, from the previously dominant class, needed to develop skills to navigate these 'new' relationships effectively, including cultural competence and sensitivity to different social contexts. However, it did not follow that all individuals were well-supported, incentivised and enabled to perform these roles.

While mentorship can introduce an imbalance in power relations, leading to conditions conducive to exploitation, it is also argued that mentorship can be a democratising force within the professional field. It provides essential guidance and support, helping to level the playing field and provide a safety net for new entrants into the field, particularly those from underrepresented backgrounds. Mentorship allows for the practical application of theoretical knowledge and the development of professional judgment in real-world contexts. Moreover, mentors can act as advocates for their mentees, helping them navigate the complexities of the professional field and opening doors to opportunities that might otherwise be inaccessible (Bohnet, 2016). The potential for exploitation is not an inherent flaw of the mentorship system but, I argue, a reflection of broader societal issues. Insight into APs' lived experiences can be gleaned from the survey responses on the topic.[252] It has been demonstrated that with clear expectations, and structured support for both mentors and mentees, the mentorship process can be a mutually beneficial arrangement that fosters professional growth and contributes to the evolution of the field (Bohnet, 2016).

Volunteerism and 'representing'

APs may not generally have the desire or capacity to 'represent' their demographic group, by being exemplary role models, participating in voluntary social and peer support groups, or assuming additional duties. Indeed, testimony has it that, based on their assumed membership to some rights or interest groups, individuals may be called upon to contribute beyond their 'normal' roles and responsibilities in the workplace. These include activities, such as contributing to organisational policy reform, serving on transformation committees, or engaging in extraordinary mentoring activities. Some individuals welcome these opportunities (Mayer, 2017). However, at times, individuals may feel that such tasks fall outside their area of expertise, interest, strength, or responsibility; they may have competing priorities or undue pressure to perform,

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[251] *See Homophily on page 129.*

[252] *See Mentorship on page 183.*

contributing to a sense of tokenism.[253] These contributions are frequently under-recognised, unpaid, and posited as obligatory (Harris, 2013; Ahmed, 2012). This concern is exemplified in this quote from an unnamed participant in Adendorff's thesis~

> *We also became a "prominent black practice" and with it came expectations, like don't let the side down".*
>
> *("25:32" in Adendorff, 2015:241)*

There can be considerable pressure, not necessarily all external, to participate. In circumstances of being a minority, or only, available person in an underrepresented demographic identity group, such approaches may coalesce, may be unwelcome, burdensome, and contribute to a sense of being singled out on grounds of some demographic contingency (Miller, personal communication, 27 September 2021).

4.4.3 Rights to admission reserved

Rights to remain in the profession are vested in SACAP. RPs could resign or decease or be suspended or removed from the professional register for not paying affiliation fees or, from 2008, for failure to comply with CPD requirements.[254] Following a disciplinary tribunal process, one could also be disciplined, suspended, or removed for violating professional codes. Between ~2000 and ~2019, removal from the register was variable, sometimes related to data cleaning processes, not always reported, and seemingly contingent on the regulator's processing capacity and leniency.[255]

Member's cooperation with formal processes was also hindered by technical difficulties in the introduction of new systems and communication issues. A review of annual reports showed that by far the most significant reason for removal from the official professional register was related to failure to pay fees to SACAP.

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[253] *The perception of tokenism may operate in dual ways: individuals who are urged to volunteer based on their demographic identity may feel that their involvement is tokenistic, and observers may similarly view their participation.*

[254] *SACAP Annual Report 2009/10 (2010:51).*

[255] *For example, in 2014, SACAP's fourth term Council was ushered in, announcing that demographic transformation of the profession was a strategic priority. It introduced a fee amnesty, which resulted in raw membership numbers improving, if only temporarily.*

4.5 Economic Capital

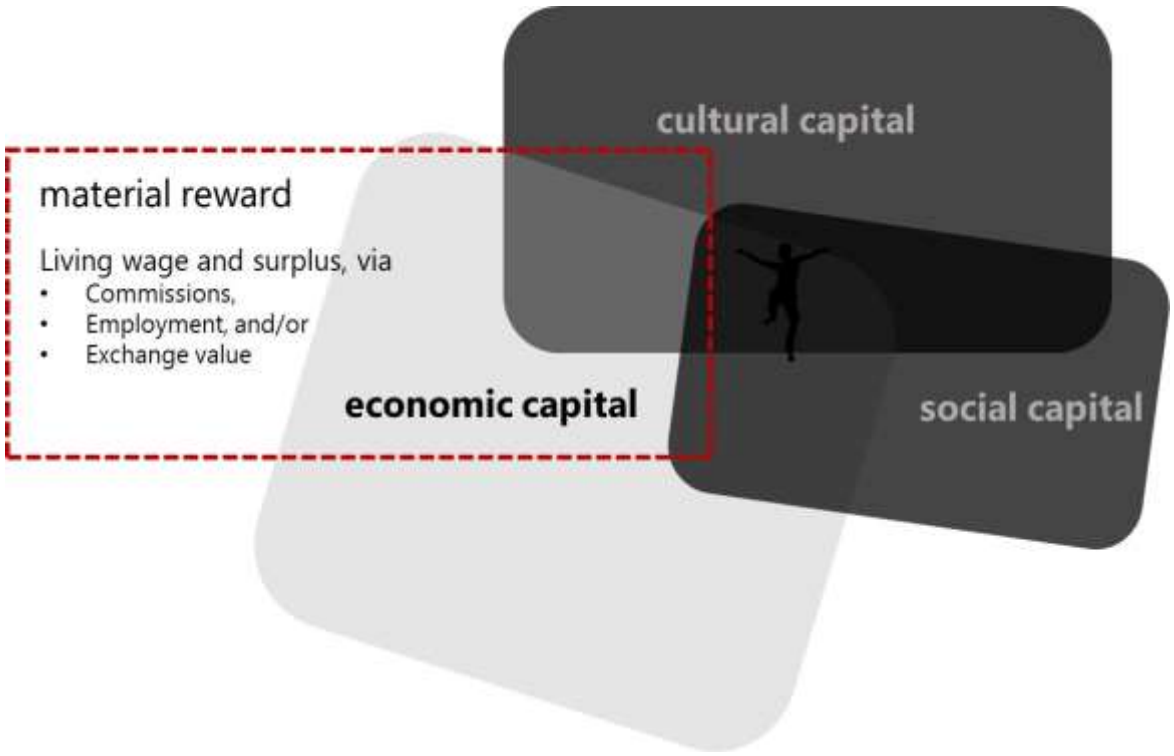


Figure 33: Economic capital in context of the model for distinction

Material reward and compensation were identified as critical retention and transformation factors in the literature survey, as detailed earlier.[256] According to the model for distinction introduced earlier,[257] economic capital in this study is concerned with material reward. In the architectural field, this is accessed via commissions to undertake work, employment opportunities and exchange values, sufficient not only to sustain a living wage but ideally, with a surplus. Adequate compensation enhances retention by providing financial stability and fostering job satisfaction. Refer to *Figure 33*.

4.5.1 Levelling the playing field

Affirmative action can be framed in Bourdieusian terms as a policy introduced by the rising class faction to redistribute economic capital to historically marginalised groups, restoring what would have accrued but for previous capital monopolisation, thereby instating new power hierarchies and 'levelling the playing field'. One of the transformative instruments introduced in 2003 was B-BBEE. The B-BBEE Act (Republic of South Africa, 2003), an affirmative action legislation, was enacted to promote economic transformation and augment the economic involvement of black^ individuals in the South African economy. The B-BBEE framework evaluates a spectrum of elements, including ownership, management control, skills development, enterprise and supplier development, and socio-economic development. Collectively, these components are deemed instrumental

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[256] *See 3.3 Current Perspectives on Retention, Attrition, and Transformation on page 67.*

[257] *See 1.5.2 A model for distinction on page 33.*

in driving economic transformation and empowerment. The B-BBEE level, which must be independently verified, holds significance in the procurement domain, particularly for government contracts, where it is assigned a factor in bid assessments. Consequently, bidders lacking any demographic transformation credentials might be excluded entirely from tendering or impelled to offer price reductions between 10 and 20%, assuming other factors, such as 'functionality', are equal, to remain competitive.

Such affirmative action frameworks can confer advantage on historically disadvantaged individuals in the workplace, and function in the marketplace as a mechanism to rectify economic injustices. Theoretically, assuming parity in all other aspects, individuals of black^ descent and females should be accorded preferential access to the graduate job market and career advancement, securing commissions, ownership, leadership, accelerating empowerment and fostering transformation.

Nonetheless, empirical findings from this research support other scholars' findings that such mechanisms may be superficially received (Horwitz & Jain, 2011:306-309), ineffectual (Viruly, 2009:5) or inadvertently subvert the goals of transformation.

4.5.2 A spectre of unemployment

South Africa has an exceptionally high unemployment rate, particularly acute among the youth, and highest among blacks^ and females (Statista, 2024; De Lannoy & Graham et al., 2018). In the capital exchange market, the unemployed graduate phenomenon can be understood through a Bourdieusian lens as indicative of a barrier to the reconversion of symbolic capital, such as degrees, degrees) into social capital, such as jobs for economic capital, such as salaries, as agents would have anticipated, due to it has been the case in the past (Bourdieu, 1984:150-153).[258] This phenomenon suggests a diminishing value of degrees in the contemporary job market, which implies a disconnect between the social and symbolic capital educational qualifications confer and the preference of employers and patrons for practical business-related skills, such as communication and problem-solving abilities (StatsSA, 2024[d]; Ramnund-Mansingh & Reddy, 2021:209-210).

Frustration and discouragement, followed by exit from the profession are logical outcomes likely to ensue if graduates are unable to find work (Virtanen & Koivisto, 2001). Although data showed that holding a qualification significantly improved prospects for finding work (StatsSA, 2024[d], Van Der Berg & Van Broekhuizen, 2012), the phenomenon of increasing graduate unemployment has also risen, tracking the overall local unemployment rate (StatsSA, 2024[d]; Ramnund-Mansingh & Reddy, 2021). Unemployment of graduates is not only a local concern. International discourse signals similar concerns in parts of Europe (Green & Henseke, 2021), Asia (Hanapi, 2014; Ferdous & Asad et al., October 2019) and other African countries (Owolabi & Adeosun, 2023; Fenta, 2024). The

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[258] *Discussing expanding access to old school systems, Bourdieu noted, "the allodoxia which the new system encourages in innumerable ways, is the reason why relegated agents collaborate in their own relegation by overestimating the studies on which they embark, overvaluing their qualifications, and banking on possible futures which do not really exist for them; but it is also the reason why they do not truly accept the object reality of their position and qualifications" (1984:155).*

unemployment rates among APs are not specifically available,[259] and survey data indicates that this was an intermittent problem associated with macroeconomic externalities.[260] Testimony presented at the "*Young Professional Webinar"* (SACAP, 18 July 2024) strongly suggests that difficulties and skills in gaining employment is rapidly reemerging as a challenge among graduate APs.

The issue of unemployed and underemployed graduates is a well-documented and concerning phenomenon, frequently highlighted in media reports (Diale, 27 May 2019; Mail & Guardian, 17 May 2016; Mahlangu, 2020) and lamented in social media. This narrative is sometimes given further polarising effect by characterising youth as 'unemployable' (News 24, 2014; Mahope, 18 August 2020; Kigotho, 2020).[261] Employability remains an important consideration for new graduates and prospective employers as the nature of employment is subject to ongoing evolution. In the absence of sufficient employment opportunities within the field, individuals may have sought prospects outside the profession or opt for positions in lower registration categories, driven by an inability or unwillingness to delay the benefits of the immediate reward of paid work. Young graduates from well-resourced environments (predominantly, though not inevitably, white) were often better positioned to endure deferred pay to pursue higher degrees, which carry greater employment potential.

Three options are available to APs for employment in the field – through the private sector, through the public sector and in research/ academia, or some combination thereof. Public and private sector dynamics relevant to the field will now be discussed.

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[259] *Although the attrition for architecture graduates is not known, Wildschut and Mncwango et al. found unemployment among NSFAS beneficiaries to be among the least afflicted by unemployment of all graduates (2018:41). However, as noted, NSFAS is relatively less commonly accessed by APs.*

[260] *See 5.3 Survey Results on page 157.*

[261] *As pointed out in the Daily Maverick, peddling stereotypes of youth unemployability may be both unjust and harmful (2021) and must surely further alienate youth from the world of formal employment, seeming, perhaps, unjust.*

4.5.3 The state

The state as 'player'

The state receives revenue via taxes to sustain its existence generally, but also collects affiliation fees from RPs, plan scrutiny fees, National Home Builders Registration Council (NHBRC) registration fees and more.[262]

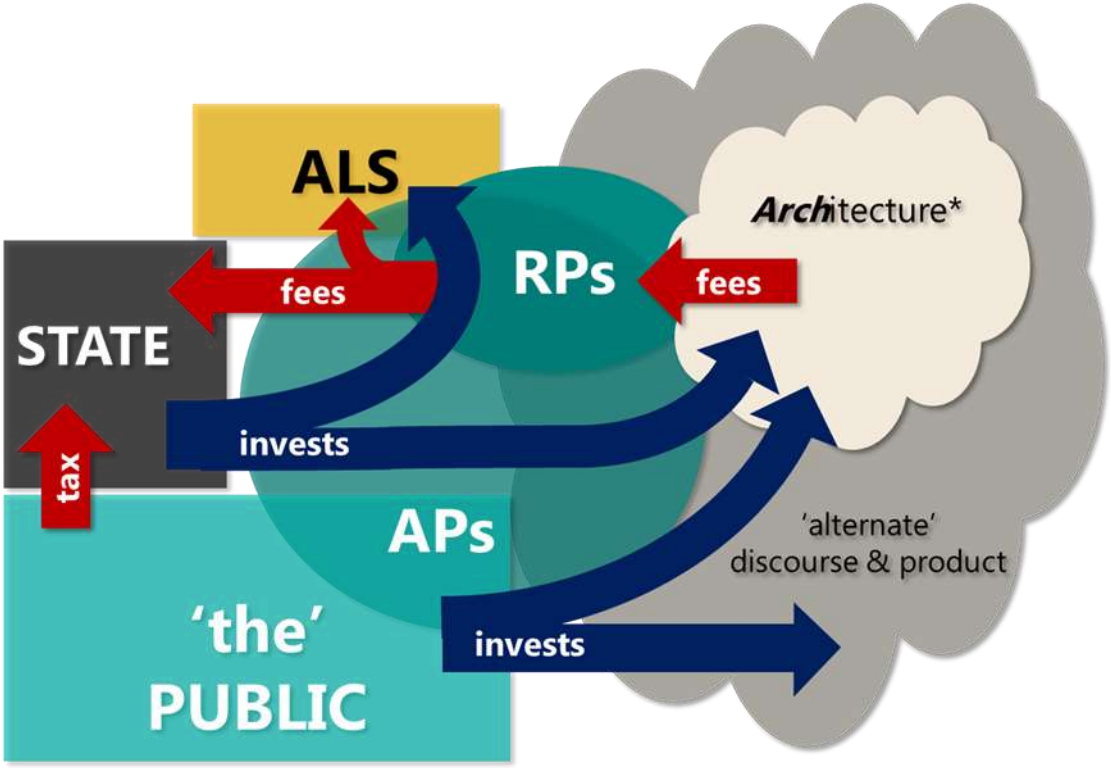


Figure 34: Schematic of economic resource flows in the field

This state is not a purely disinterested 'referee' but also a 'player' in its own right. The state subsidises public tertiary education, including at ALS. Albeit shrinking since 2017, all three spheres of government[263] remain significant investors in the built environment itself. A graph of public expenditure on infrastructure at *Figure 35* follows a similar profile to the costs associated with plans passed shown earlier,[264] except that it tapers sharply down after 2018. The graph shows that the bulk of infrastructure expenditure in the public sector resides in the provincial sphere of government, with local and national spheres less invested in building works. About 80% of new building stock is commissioned through the private sector, with the public sector a formidable actor in non-residential programmes (CIDB, 2023).

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[262] *Though the state makes claims that the protection of the public and environment is a core mandate, the irony of this situation is that some of the communities most vulnerable to harm from the built environment, its failures and most likely to introduce harm to the environment , (such as the informal sector) are largely excluded from these particular state protection measures, although they are targeted beneficiaries through other state initiatives.*

[263] *They are local, provincial, and national spheres of government.*

[264] *See Figure 20: Construction costs 2000 to 2019 by building type (R.'000) (StatsSA data: visualisation by author). Inset GDP per capita, PPP (constant 2021 international $) (World Bank data) on page 110.*

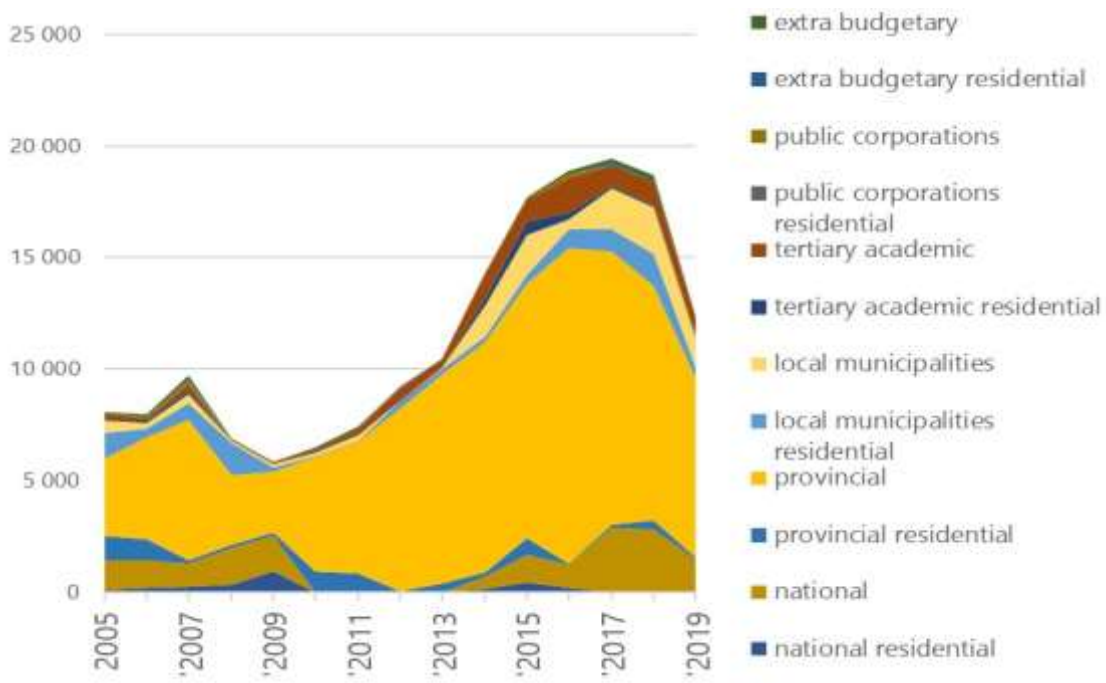


Figure 35: Public capital expenditure, 2005 to 2019 (R.million) (StatsSA data (2024[c]): visualisation by author)

The state as employer

Public works was introduced in an earlier section of this thesis as one entering the 21st century with mixed models,[265] limited in-house capacity and a tendency to rely on consultants and service providers to deliver on their mandates. This strategy assisted with the short-term need to demographically transform as project managers are quicker to produce than architects and engineers. As and when the pipeline began to produce black^ and women graduates in the field of architecture, the state began to preferentially absorb them into public service, in alignment with its transformation policies. However, the delivery model remained that of project management and skills development and the nature of work within departments aligned with this modality.

To professionally advance in the public service, a South African Council for Project and Construction Management Professions (SACPCMP) registration is sometimes preferred, and a SACAP registration is not always required. According to one key expert (personal communication, July 2024) who held a senior position in the National Department of Public Works between 2012 and 2017~

> *The sole entry point to projects was via the Project Manager. Architects were strictly to act in an advisory role. Leadership was the domain of the project manager and they determined the extent of involvement of the other professionals*
>
> (anonymous 3, 5 July 2024)

In this working environment, developing confidence (and competence) generally acquired through firsthand exposure to classic architectural practice could be difficult. On the other hand, the state is a reliable employer with considerable benefits, like reasonable

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[265] *See 3.2.4 The rise of the consultant and the service provider on page 67.*

work hours. From 2007, certain public sector employees (notably the engineering and related professions, deemed to include some APs) were extended an occupation-specific dispensation (OSD). This offered uniform salaries and no requirement to have experience to attract and retain talent (Department of Public Service and Administration, 2011).

Despite this intervention, data indicates significant attrition continues in some occupations of the public sector. *Table 9* shows the turnover rate in an entity of the National Department of Public Works and Infrastructure (NDPWI) from its annual report (NDPWI, 2022), demonstrating formidable retention issues among all professional groups, including APs. This entity may be an outlier among public-sector employers.

Table 9: Turnover rate in critical occupations in the PMTE (source: NDPWI, 2022:146)

Occupation	Turnover rate (%) 2020/21	Turnover rate (%) 2021/22
Architects, Town and Traffic Planners	33.9	37.5
Civil Engineering Technicians	76.2	51.9
Engineers and Related Professionals	18.4	27.3
Mechanical Engineering Technicians	~	75.0
Quantity Surveyors and Related Professionals	6.7	6.7

According to anonymous 3, (5 July 2024), there is also the issue of Professional Indemnity. The state does not carry insurance. Professionals want to have an undertaking that the state, as an employer, will indemnify individuals against claims, which acts as a disincentive to undertake any design work. While most accept the management of discipline within the workplace, undertaking design entails placing personal assets and estate at risk.

Key informant Naidoo (24 December 2021) noted that young black^ APs who have served in the public sector for some time are unlikely to seek new opportunities in the private sector. Conversely, the private sector, considering the quality of experience and what is viewed by some as an entitlement culture gained through public service, may be reluctant to hire these APs. APs often select the architecture profession as a career choice as it is perceived to be creative, or an intellectually engaging combination of creative and technical endeavour (Adendorff, 2015). However, according to key informant Tshombe the public service as it is currently configured, is technocratic and constrained (13 February 2024).

Thus, with some exceptions, state officials, regardless of their academic credentials, creative acumen or design aspirations, assumed the role of project managers. The project managers procure professional services from the private sector, including those of APs, to execute its infrastructure projects.

State as procurer of professional services

Section 217(1) of the Constitution stipulates that when an organ of state contracts for goods and services, it must do so by a fair, equitable, transparent, competitive, and cost-effective system. The public sector is subject to stringent financial management

regulation[266] and is obligated to implement a preferential procurement policy framework.[267] The goals of the framework policy are for the government to leverage its considerable spending to enhance the participation of historically disadvantaged individuals and small, medium and micro enterprises (SMMEs) in the economy.

Linked to the B-BBEE framework, the preferential policy framework stipulates that a preference point system must be followed, giving preference to specified categories of people and enterprises in the awarding of contracts, although there are exceptional processes which can be entered into.[268] First operationalised as decentralised programmes around 2000, these interlinked instruments of the Public Finance Management Act 1 (Republic of South Africa, 1999); the Preferential Procurement Policy Framework Act 5 (Republic of South Africa, 2000b); the Broad-Based Black Economic Empowerment (B-BBEE) Act 53 (Republic of South Africa, 2003); and the Municipal Finance Management Act (MFMA) 56 (Republic of South Africa, 2003[b]) have increasingly been moved towards more centralised management. This centralisation was intended to address capacity concerns and to allow easier scrutiny and better oversight and control, to address concerns of a lack of transparency, consistency, efficiency and corruption.

Public tenders were advertised in the Government Tender Bulletin until 2015 when the National Treasury-hosted e-Tender Publication Portal was launched. Within a year, it became mandatory for organs of state to electronically publish all tender opportunities and competitive bids on the platform. All tender notices, amendments to advertised bids, cancellations of bids, and notifications of final awards of bids are published there, together with comprehensive information on procurement rules and guidelines.

The tender processes, guided by the Public Finance Management Act 1 (Republic of South Africa, 1999) and the Preferential Procurement Policy Framework Act (Republic of South Africa, 2000b) have had significant impacts on the delivery of infrastructure and professional service providers in South Africa. In the public infrastructure procurement environment, the Construction Industry Development Board (CIDB) has played a decisive role.

Aligned with the National Treasury's regulation, the CIDB established a Standard for Uniformity in Construction Procurement, which provided specific guidance on procedures for inviting tenders, evaluating submissions, managing infrastructure projects, and procuring professional services (2007). Before 2007, procurement of professional services was described as highly variable (CIDB, 2007:2). Consultants could be selected from a database of pre-qualified consultants on a 'roster' (rotation) basis or at the discretion of officials. In some cases, targeted firms were invited to submit proposals to a panel. A tariff system of standard hourly charge-out rates was commonly applied. Open tendering and invited tenders were mainly used only for substantial works or where the scope fell outside the guideline tariffs' purview. The architecture profession was concerned. SAIA's 2002 President address, noted~

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[266] *The Public Finance Management Act 1 (Republic of South Africa, 1999) applies to national and provincial government, and a similar instrument Municipal Finance Management Act 56 (Republic of South Africa, 2003[b]) (MFMA) applies to local government.*

[267] *The Preferential Procurement Policy Framework Act 5 (Republic of South Africa, 2000b).*

[268] *For example, sole supplier, preferred supplier, emergency procurement.*

> *It would be hugely remiss of me not to conclude my report without addressing this important issue. The Institute has always recognised the constitutional right of government to address the imbalances of the past, and to take such steps as are necessary to implement actions that will satisfy this requirement. The Institute has also argued for the implementation of a procurement system that is fair and that acknowledges the contribution that the profession, as a whole, can make to improve the quality of the built environment to the benefit of all. We have also stressed that in many areas the Department of Public Works is one of the biggest investors in capital works and that professionals operating in these areas are, to a large degree, dependent on this investment. Without a steady flow of work, these practices will close down. The current roster system is creating many real difficulties and is in urgent need of a critical review.*
>
> (Van Wyk, 2002:7)

The suitability of the tender system has been questioned, and infrastructure delivery management has been criticised due to its cost (Quinot, 2023:78), its technocratic and mechanistic application (Fourie & Malan, 2020:1) and its lack of effectiveness (Malete & Khatleli, 2023). Despite the robust regime of laws governing public procurement, the system still faced problems such as unproductive tenders, performance and quality management, overbilling, false-billing, poor demand management, scope creep, cost escalations, delays and corruption (Ambe & Badenhorst-Weiss, 2012; Mantzaris, 2014; Munzhedzi, 2016), particularly in the construction sector (Makube, 20019; Shai & Molefinyana et al., 2019; 17, 20; Lukhele & Botha et al., 2022:62; Mwale 2020). Government tendering became associated with 'tenderpreneurs'. According to the pejorative~

> *…is a South African colloquialism for a businessperson who uses political contacts to secure government procurement contracts (called 'tenders') often as part of a reciprocal exchange of favours or benefits*.
>
> (Piper & Charman, 2018)

Because the award of these tenders is based on political affiliation or nepotism rather than in the interests of the public, often obscured from public purview, sometimes (though not necessarily) outside provisions of the law, sometimes resulting in unjust enrichment,[269] It is widely regarded as corrupt. Because of the large sums of money associated with capital works, and the complexity of their execution (making forensics and audits intricate), these are among the public procurement transactions to be targeted. Tenderpreneurial enterprises often leverage their B-BBEE credentials to enter joint ventures on projects they cannot necessarily execute, with enterprises who have the capability, skills or experience to do so but do not have the B-BBEE scores to secure the work, in exchange for a fee.

In Bourdieu's terms, such a transaction could be viewed as an exchange of social capital (tenderpreneurial/ patronage networks) or symbolic capital (B-BBEE credentials) for economic capital, as per a finders' fee. One key informant reflected (anonymous 3, 5 July 2024) "this is not an efficient use of public money", whilst according to (anonymous 4, 22 May 2024), "this is not immoral as long as the infrastructure is successfully delivered".

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[269] *For example, Fritz (2014) contended that the practice creates a few millionaires*.

Depending on the specific details, such an arrangement could constitute fronting,[270] which is illegal. For both anonymous 3 (5 July 2024) and anonymous 4 (22 May 2024), the situation is very problematic, as it disincentivises technical skills development and professional advancement among blacks^ who can benefit from preferential procurement arrangements without becoming deeply involved in the technical business delivery. This undermines the gravitas and standing of these individuals in society and leads to stereotyping, which in turn extends to professionals who are, or aspire to be, authentically engaged in the field and brings the industry into disrepute.

Key informant Tshombe (13 February 2024) articulates that to stimulate professional growth and prevent stagnation, government departments should take on more direct involvement in implementing architectural and technical work rather than relying solely on external consultants. He observes that architects and other technical professionals often find their roles limited to reviewing outsourced work, which is an underutilisation of their talents, can stifle intellectual engagement and hinder professional development. Tshombe advocates for a model where departments retain responsibility for simpler tasks, such as conducting condition assessments of public works, allowing in-house professionals to engage in meaningful, hands-on projects. Tshombe further argues that tasks such as designing schools, which do not typically involve complex requirements, can be effectively handled by public service internal staff. Outsourcing should be reserved for projects with higher complexity, such as healthcare infrastructure. Tshombe points out that many professionals within government departments possess the necessary skills and can perform such tasks without needing external service providers. By better utilising in-house expertise, departments can not only save resources but also provide staff with stimulating and diverse experiences, thereby reducing the likelihood of professionals leaving for more fulfilling opportunities.

4.5.4 Private sector

Analysis has shown that the legacy dynamics of poverty and socio-economic classes have been complex and slow to transform after apartheid was abolished in 1994. Research indicates that about one in four South Africans could be classified as being in either the stable middle class or the elite class. However, the majority of South Africans experienced persistent poverty or moved in and out of poverty, constantly struggling to make ends meet (Zizzamia & Schotte et al., 2019). Factors such as race, education, and geographic location played a significant role in these dynamics. It is evident that while some patterns of inequality have slowly changed since the end of apartheid, in general, inequality worsened up to 2019, with muted prospects for intergenerational mobility (Piraino, 2015; StatsSA, 2019). Seekings and Nattrass (2008) attribute this persistent economic inequality to a post-apartheid distributional regime which divides South Africans into ‘insiders’ and ‘outsiders’, with the ‘insiders’ enjoying good access to well-paid, skilled jobs and the ‘outsiders’ lacking access to multiple forms of capital. Thus, South Africa’s social, cultural and economic capital landscape can aptly be described as bifurcated.[271]

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[270] *According to the Department of Trade, Industry and Competition (n.d.), ‘fronting’ refers to the deliberate evasion of B-BBEE (affirmative action) regulations. It includes practises such as window-dressing (intentionally being deceptive to make entities appear more compliant), benefit diversion, and the use of opportunistic intermediaries to exploit B-BBEE status unfairly.*

[271] *As first proposed by Thabo Mbeki in an August 2003 “Letter from the President”.*

The result of the foregoing was that there was little or no growth in the market for architectural services between ~2000 and ~ 2019. Reproducing market alignment stemming from its historical roots in the pre-democratic era,[272] the profession remained well-positioned to service the needs and expectations of the economically dominant faction of society. According to one key informant, the majority of individuals simply cannot access or raise capital to build. He classifies those who can into one of four categories~

> *Corporate clients and developers are repeat, savvy clients who dictate terms and (in general) aim to extract the lowest price for services. One-time builders (such as for the luxury housing market) feel the effect of fees directly on their pocket at a time, often, they are extending themselves financially to a maximum. There is a class of clients who are aiming to use the building to solve a problem and can raise capital to do so, (usually once off). Finally, there is the incremental investor who builds as and when they can afford to do so, who often do not involve APs.*
>
> (anonymous 5, 30 July 2024)

Similar to the public sector, the private sector is a source of economic capital, as remuneration through employment, or service fees. In fees, sometimes APs trade time for money directly (that is, charge an hourly rate), but more often they get paid for achieving project milestones. Under conditions of abundant practitioners,[273] low work volumes,[274] , and disinterested markets (posited above), competition for work becomes acute and generating surplus economic capital becomes challenging. In this way, attrition can be viewed as the natural and necessary capitalist market process for supply to match demand.

Though some APs structure their business differently - for example, by taking equity in projects in lieu of fees, APs are habituated by the doxa of the profession, for example in the methods for fees calculation, to conceive of their work as fees for service (Van Wyk, 25 May 2024). Illusio dictates that APs deny that they would elaborate building designs or specifications to escalate costs to increase fees, though given how the incentives appear to stack up, one can see why this is sometimes suspected (anonymous 5, 30 July 2024).

Key informant Grimsehl (4 July 2024) points out that there is a mismatch in the complexity of pricing strategies and contracting procedures vis-à-vis the market sophistication of some clientele. A second anonymous informant expressed similar sentiments, saying “the issue is getting the public to realise the simplicity of involving an architect, in any project, and the exponential benefits it brings, and paying timeously for the service received” (anonymous 2, 2 July 2024).

Elitism was also a concern raised by key informant Tshombe (13 February 2024), who emphasises the importance of integrating community perspectives into the architectural design process, which is often overlooked. He observes that while architects approach projects armed with technical expertise, and, rightly, in a professional capacity, they tend to disregard the lived experiences and social dynamics of local communities, and the

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[272] *See 3.2 A Society and Profession in Transition: Before and After 2000 on page 60.*

[273] *See 4.1 Quantitative View of the Pipeline on page 92.*

[274] *See 4.2.5 Building production volumes from 2000 to 2019 on page 108).*

uniqueness, for example, of Soshanguve and Mamelodi. Tshombe argues that effective design must transcend technical solutions and include insights from diverse community members, such as schoolchildren, the elderly, and youth. These perspectives help APs better understand the social fabric and nuanced needs of the area. This inclusive approach fosters more holistic and meaningful consultations, ensuring that designs not only meet technical standards but also genuinely serve the community's long-term interests. Tshombe poignantly notes that APs are transient figures in projects, whereas communities live with these designs indefinitely. Therefore, a deeper engagement with local knowledge is crucial for creating spaces that resonate with the people who will use them daily.

Key informant Deckler has recently started testing a novel strategy devised to forge connections with stakeholders (20 July 2024). He offers prospective clients a one-hour consultation free of charge. He has pre-prepared a series of 4-page scripts to 'triage' the inquirer efficiently to assess their 'problem' as motivations, needs, resources, aspirations, compatibility, etc. Based on the outcome, a quote, rather than an estimate, or referral is made. Thereafter work may proceed based on an upfront payment. This has multiple effects on setting up tacit rules of engagement in that it:

- generates goodwill and places value on the consultation,
- sets the expectation that interaction after one hour then payment will be required,
- limits exposure,
- provides an opportunity to screen prospective clients, and
- allows for the formulation of a 'simple', and suitable course of action.

Although this is but one example and is yet to be tested, it could provide a blueprint for an alternative method of engaging prospective clients. According to a South African architect with an MBA, currently working internationally~

> *…there is a lot of room for innovation and growth of the "innovative business models". Many industries have been "disrupted" in innovative and transformative ways, and we are yet to see something like that for the architectural profession. I think the more architects are taught to think strategically from a business acumen perspective, the more innovative they will be able to be in negotiating fees structures, and agreements. Many architects I know have leveraged part of their fee for an ownership stake in a building they designed - thus securing themselves future rental revenue. Being able to understand your practical value as well as the long-term value-add you can offer, can allow for better negotiations.*
>
> (Du Trevou, 17 July 2024)

Size, structure and configuration of practices

SAIA membership is voluntary (Van Wyk, 2002) and represents only a segment of the registered professional body. Its reports on the state of the profession provide some of the very limited available insights into how the profession self-organises. Although comprehensive data is not available,[275] SAIA (2020) data suggests that only about one per cent of practices have more than 20 fee-earning APs, about four per cent have between 10 and 20 fee-earning staff, whilst up to 45% of APs operate as sole practitioners, mostly

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[275] *SAIA membership represents about 1/10th of RP, but no other data source is known regarding how practices are constituted.*

from home. Practices, therefore, tend to be very small, and apprenticeship opportunities are, therefore, rare. Between 1991 and 2001, the percentage of solo practitioners on SAIA's database more than doubled to 40% (Vosloo, 2017:4; SAIA, 2020:8).[276] In 2019, the percentage of solo practitioners was marginally higher, at 43% (SAIA, 2020:6-9). However, the number of macro enterprises represented had shrunk from five per cent in 2001 to one per cent in 2019 (Vosloo, 2022).

According to SAIA (quoted in Young-Pugh (2005:34)), in 2001, approximately 25% of practices generated a value of more than R 980,000 (~R 2.6 million in 2020 terms).[277] In 2020 an estimated 60% achieved this (SAIA, 2020).[278] In 2001, eight per cent earned more than R 4.9 million (~R 13 million in 2020 terms) per annum. In 2019, this was over 11%.

Competition, viability, and (?) pending implosion

Fees discounting is widely practised among APs (Van Wyk, 2004; Vosloo, 2017; SAIA, 21 June 2024; Grimsehl, 4 July 2024), leading to declining margins, increased risk, and increased stress. This led SACAP to post a concerned note to RPs against charging 'ridiculously low fees' (SACAP, 12 April 2019). However, what exactly constituted ridiculous was not clarified. Competition is experienced as a cross-cutting economic issue in both the public and private sectors in South Africa. A partner in a large practice suspects that the situation will 'implode' before recovering~

> *compensation is the absolute crux of where we are as an industry and the current amount of people that we are losing. I do HR in the company. Finding quality new staff is a near impossibility. A lot of our staff have left our shores. And it has to do with money. If we can sort out that the architect receives a fair remuneration, all other things like getting one person to do two people's jobs, work-life balance, all of that, will come right. How to do that is a very difficult item, especially in South Africa.*
>
> (Grimsehl, 4 July 2024)

Competitive tendering is closely associated with selection procedures based significantly on the lowest fee tendered, which has encouraged significant fee discounting (Tshombe, 13 February 2024). These construction sector conditions (characterised by uncertainty, extreme competition, and stoic prioritisation of cost) are conducive to opportunistic practises whereby professional service providers submit low-fee proposals to secure tenders, with the anticipatory view that additional compensation can accrue later due to delays, contract escalations, scope changes, extra services or enforcing penalties (Ikuabe & Oke et al., 2021). According to another key informant~

> *This a very problematic issue which needs elaboration. DPW is notionally the custodian of SACAP and the regulation of fees. It thus recognizes that fees should be at level for AP's to undertake work and bring it to successful conclusion. But there is a conflicting notion or underlying philosophy of competitiveness, where discounts are seen as essential to*

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[276] *In the absence of source material, this analysis assumes that the voluntary association's membership was representative of the field in 2001 and remained so in 2019, although data suggests membership numbers declined from 1,700 to 1,094 over the period (Vosloo, 2017:4; SAIA 2020:7).*

[277] *Working on an approximate prevalent exchange rate of ~R 7/$.*

[278] *Assuming the term 'generated a value of' is equivalent to 'total income/turnover'.*

> *enhance a competitive culture. These are conflicting approaches which lead to unsatisfactory outcomes. I heard of "discounts" of 90% on a project. Added to this is the need to tender on disbursements. Whilst it can be argued that this is desirable to curb overuse of travel etc. but it also leads to underservicing by AP's.*
>
> (anonymous 3, 5 July 2024)

In the private sector, developers also negotiate reduced fees, although often with an anticipated incentive for future work. Although opinion is divided,[279] reduced fees are thought, at a systemic level, to adversely impact built environment quality, for example, by prioritising cost over material quality, and undermining the ability for consultants to reinvest in their profession through training, mentorship, participation in pro-bono work and other investments into the profession (Ramabodu, 2023; Okonkwo & Wium, 2018). Fee discounting also has implications for the viability of the built environment professionals for individuals who are compelled to discount fees to the point required to successfully win tenders, lack social capital. This preferentially includes those who are not suitably connected to take advantage of the patronage network, who are not knowledgeable about how to participate in the range of compensatory practises in play, or who may regard these as unethical or impractical.

These mechanics highlight the complexities and challenges in securing (architectural) work in South Africa. While the tender processes aim to ensure transparency, fairness, and cost-effectiveness, they also present challenges that need to be addressed for efficient infrastructure delivery and the provision of ethical professional services.

The SAIA report (2020:50) suggests that in 2019, fee bidding was a significant way in which APs tender for work, accounting for nearly a third of approaches to securing work. This was second only to being directly approached, which, though used twice as often, is not an accepted procedure in the public domain and is very difficult for new entrants into the field unless they have strong social capital.

Work at risk

The practice of working at risk in the architectural field highlights some of the power dynamics that shape the profession. This practice occurs when developers, corporate clients, and investors leverage their substantial social and economic capital to impose conditions on APs to defer payment for the design of speculative projects or to relinquish their intellectual property by ceding design rights. This power imbalance places practitioners in a precarious position, which, according to the architect Manus Heunis (SAIA, 21 June 2024) and others, compels them to accept terms that favour their clients' financial interests.

By deferring payment, these clients are enabled to undertake large-scale projects and investments whilst effectively transferring risk to consultant BEP, such as APs, who may lack economic capital. This dynamic is particularly detrimental to small practices and more inexperienced APs, which may not have the financial reserves to sustain prolonged periods without compensation or absorb the costs associated with work at risk where the project does not materialise (SAIA, 21 June 2024; Adendorff, 2012:127).

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[279] *For example, Laryea and Watermeyer et al., are dissenting (2020).*

The architectural field values its design acumen and technical expertise, both of which are central to the intellectual property and cultural capital) that practitioners produce (SAIA, 2020:52-55). When practitioners consent to deferred payment, they generally consent to complete the work stages as defined by SACAP (2011b:79-81) for inception (stage 1), concept and viability (stage 2), and possibly as much as a third of the time, design development (stage 3). Prospective clients who encounter APs unwilling to engage in work at risk simply turn to other willing practitioners, particularly during economic downturns (Adendorff & Botha et al., 2012:127).

Thereby, APs are effectively coerced to invest significant time and resources upfront, often without a guarantee of compensation. Established practitioners with robust networks may navigate work at risk more effectively, leveraging their know-how and connections to secure favourable terms or subsequent contracts and offsetting the risk work risks and costs against established cash flows and larger order books.

At SACAP's webinar on work at risk (21 June 2024), some senior and established practitioners attested to building successful practices on risk work, suggesting that it can play a valuable role in accumulating capital. The SAIA (2020) report corroborates the prevalence of work at risk, identifying that 67% of its responding members engage in this practice, with the rate rising to 100% among larger practices. This statistic highlights the disparity between larger and smaller firms, as only 57% of micro-practices undertake work at risk (2020:55-57). The report also indicates that about half of risk work translates into paying business, suggesting that while the practice can lead to successful outcomes, it remains a significant gamble for practitioners, particularly those with limited resources.

Discussion at SACAP's "*Risk Work webinar*" (21 June 2024) suggested controversy on the principle of whether APs ought to be entitled to enter into agreements on their own terms was a fundamental competitive right or whether the phenomenon harmed the profession to the extent that legislated prohibition was indicated.

SAIA's 1999 Practice Manual advised architects to "establish seniority" among consultants (SAIA, 1999:S2122:2). The 2023 Study Aid concedes to the increasing field complexity. It acknowledges the appearance of various other actors displacing roles once the remit APs, a notable shift in responsibilities to other parties less involved in the design process, and a weakening of the roles of APs (2023[b]:91). Consequently, it advises "there has been a dilution in the role and scope of the design team and a tendency to reduce or omit the design team's role on site" (2023[b]:91).

5 PROFESSIONAL JOURNEYS

Chapter five considers a collection of social trajectories of retained and 'lost' APs, with a focus on the perceptions and affective dimensions of being placed and misplaced within a profession.

5.1 Overview

Within the context of Component 2 of this study, an electronic survey entitled "*YOUR JOURNEY in South Africa's Architecture profession"* was conceptualised and executed to solicit a diversity of personal accounts to be considered as a collection of social trajectories, disaggregated to race and gender, to reveal patterns in self-reported perceptions and feelings, or affective dimensions, to being placed or misplaced in the profession, and to infer patterns in habitus.

While individual responses have been preserved in the exact narrative format in which they were received, the analytical framework employed in this section adopts a predominantly quantitative paradigm, consolidating responses received and reporting on the findings that emerged from discrete questions rather than organised by individual journeys. This provided insights into the diversity of experiences and perspectives, as well as outliers, and areas of convergence. This approach entailed that, in the ensuing analysis, individuals' narratives and biographies were not followed. To restore some of the lost nuance and richness incurred in this procedure, and to convey the affective dimensions of responses, the quantitative data has been supplemented with text sampled verbatim and displayed in text boxes, without the use of '[sic]' and without correction. The theoretical underpinnings of this survey, inclusive of its design and approach, participant targeting, survey distribution, and data collection.[280]

Before turning to the results, this section offers a description of the preparatory and visualisation techniques employed to present responses. Thereafter, a few demographic characteristics of the survey respondents are compared to both the broader national populace and the professional register, to convey the level of representativity. The ensuing discourse organises response data into four overarching thematic categories which were identified from the preceding sections of this thesis as having seminal influence in the formation of APs' habitus. The identified themes were positions in, and perceptions of the field, relationships with institutions, the architectural workplace, and ARCHIculture. Additionally, APs were directly canvassed on their views on achieving retention. The narrative explored rationales and factors offered by APs on their decisions to persist within or depart from the profession.[281] In tandem, the respondents' perceptions

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[280] *See 2.2.3 Component 3: – social trajectories on page 47. Ethics is discussed in 2.3.1 on page 52. The survey collector instrument is attached as Appendix D – questionnaire.*

[281] *See 5.3.1 The field on page 157.*

concerning their sense of belonging within the profession, its integration within society, and its portrayal in the media are presented.[282]

Thereafter, APs' job market and workplace encounters are examined, as APs' professional journeys unfold and transition from the tertiary education phase into the professional milieu usually following graduation.[283] This entails finding a place in employment, and in the marketplace, interacting with mentors, and striving for advancement. Workplace circumstances and perceptions are shown, which included issues such as architectural practices configuration, sectoral diversity and homophily. A subsequent segment explores developing social capital through self-expression, navigating encounters of prejudice or discrimination, work-life balance, compensation, and the alignment of values of the respondents with the profession.[284] It concludes with views on promoting retention, a discussion of findings, and a chapter summary and conclusion.

5.2 Electronic Survey

5.2.1 Visualisation

A standardised colour palette, shown in *Figure 36*, was applied to the visualisations for intuitive comparison.[285] The survey made extensive use of a five-point Likert scale to record perceptions expressed as the level of agreement with statements related to study themes. Data were normalised per category.[286] The responses are displayed as stacked area charts, so that the overall distribution of sentiment can be discerned intuitively, as tending to strong agreement (on the left-hand side) to strong disagreement (on the right-hand side). Differences in responses between gender and race categories are rendered visible through colour stratification in the area chart visualisations, and gender and race charts are displayed side-by-side for ready comparison. The following symbols are used: female ('♀'), male ('♂'), and gender diverse ('◇').[287] The notation 'o', and 'un', are used to denote other, and unspecified demographic respectively and 'X' is combined 'o' and 'un'.

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[282] *In 5.3.2 Institutions on page 169 survey feedback on APs' perceptions of the formal institutional bodies, namely ALS, SACAP, VAs, and 'other' professional membership groups are set out.*

[283] *See 5.3.3 Workplace and habitus on page 182.*

[284] *See 5.3.4 ARCHIculture on page 196.*

[285] *Placement of male and white, at left or at the top in legends, tables, etc., is a convention which can be challenged as implicitly racist or sexist, corresponding with a presumed arrangement and association of good → bad (Project Implicit, n.d.). The legend aligns with the convention, acknowledging this concern. The sequence is somewhat mixed up in the subsequent visualisations in this thesis, holding them constant only to assist the reading.*

[286] *This entails that those categories with few respondents, by virtue of their low prevalence in the population generally (especially 'Indian', 'coloured' and '◇') are provided an enhanced visibility. Caution should be exercised in data interpretation for the cohorts with the fewest respondents ('Indian', 'coloured' and '◇', and among persons over 80 years old) in normalised graphs, as the small sample sizes can contribute to observed variances.*

[287] *For the purposes of this study, 'gender diverse' includes individuals who identify as neither cisgender women nor cisgender men. For additional discussion on this, refer to Appendix A – glossary of terms.*

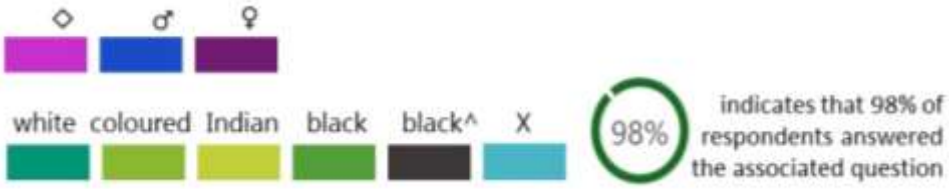


Figure 36: Legend for visualisations

For survey questions where multiple answers could be selected, radar diagrams were preferred with overlays per demographic category, with a cumulative view also shown. Other visualisation techniques, such as bar graphs, stacked bar graphs, Euler diagrams, and heat matrixes, were used as considered suitable. Participation rates were indicated using inset mini-doughnut-type charts.

5.2.2 Survey participation rates

A survey completion rate of 53% was achieved.[288,289] Despite minor missteps,[290] the final count considered was 430 submissions, which satisfied the study target of 400 responses, established in the method section of the thesis.[291] It was assumed that the length of the survey was likely to have contributed to lower-than-predicted completion rates,[292] and two of the respondents remarked that the length of the survey was onerous. Constrained communication networks and major rolling energy-supply interruptions experienced throughout the data collection period across South Africa could also have contributed to a reduced response. Although negative feedback on the survey was received from four respondents, positive feedback was received from more than a dozen individuals, and the survey was spontaneously shared through various professional networks.

The sequence that the survey presented depended on the answers provided, and not all the questions were posed to all respondents. All survey questions were indicated as optional. Therefore, not all age, race and gender identifiers were supplied and their absence in quotes indicates that survey respondents elected not to complete those fields. Most questions were furnished with an opportunity for text response elaboration.

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[288] More than 817 individuals initiated the electronic survey between 19 March and 6 June 2023, of which 434 survey responses were acceptable in that the consent page was reached and formally acknowledged.

[289] The survey completion rate of 53% was below the software automated estimated completion rate of 59%.

[290] Three completed responses and an unknown number in process were irretrievably lost when the collector was erroneously deleted. The addition of a page break in the survey disabled a skip function. This affected five per cent (n=21) of responses in which the form to provide race, gender, income, or childhood details, or to answer the question 'I belong' was not availed to participants. This error was remedied immediately it was identified.

[291] See Component 1: – research context and rationale on page 45, Component 2: – a structuralist constructivist view of the nexus on page 46, Component 3: – social trajectories on page 47 and Component 4: – prospects for transformation on page 50.

[292] The average completion time was 36 minutes, compared to an automated estimation of 44 minutes.

5.2.3 Population vs. respondent characteristics

As set out in a previous section of this thesis, there has been a persistent mismatch between the characteristics of the general South African (ZA) population, APs and RPs. As set out in detail earlier,[293] despite progressive improvements in the intervening three during which most of the current pool was enrolled into the profession, there remain race and gender deficits due to the accrued legacy of the pipeline. This entails that race (and to a lesser extent) gender deficits are to be expected among older APs, who would not,(as youth, yet have had equal access to opportunities.[294]

Table 10: 2019 Demographics population, graduates, RPs (all categories) and survey respondents

	ZA[295]	SACAP	Graduates	Respondents
♂	48%	75%	56%	63%
♀	52%	25%	44%	35%
◇				2%
black	81%	35%[296]	27%	28%
Indian	9%		9%	5%
coloured	3%		8%	2%
white	8%	65%	54%	59%
other			2%	5%
disability	4.5%			6%

The demographic representativity of the survey respondents was compared with those of the South African national background population (ZA), RPs, and architectural graduates. As shown in *Table 10*, female survey respondent representation of 35% was greater than SACAP registered proportions (25%), less than graduate proportions (44%), and 17% less than national demographics (52%). Proportionally, black^ survey respondents (35%) matched RPs (35%) and graduates (44%), and 38% lower than national demographics (which are 82%). The number of non-registered survey respondents (35%) was proportionally similar to the estimated number of SACAP non-registered eligible professionals (37% ± 6.5%) .[297] This suggests that the survey was successful in reaching non-active individuals, despite anticipated challenges in reaching this segment of the target population.

The data was analysed to establish the extent to which a reasonable age distribution of the respondents was achieved. The youngest respondent was 23 years old, the oldest was 88 years old, and the average age was 46. The age demographics of survey respondents are shown in solid colours in the stacked bar chart at *Figure 37* with a dotted line showing

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[293] *See 4.1 Quantitative View of the Pipeline on page 92*.

[294] *See 0 → 1– enrolled student to graduate on page 119, for a characterisation of the hysteresis effect in graduate production*.

[295] *Total population of South Africa by gender (Statista, 2023)*.

[296] *SACAP data used does not always distinguish between black, Indian and coloured individuals, incorporating them into a combined category*.

[297] *Estimation shown at 4.1 Quantitative View of the Pipeline on page 92*.

the professional register age profiles, as white RP at the base and black^ RP at the top. This reflects a small minority of respondents in the 20- to 29- year range which is to be expected given the typical study periods involved. This peaked between 30- and 39- years, with an average deviation of 13 and a taper after 60 years. The dip in respondent numbers in the 40- to 49- year age group affects all races and gender categories and is poorly understood.[298] Relevant to the temporal focus of this study, it is useful to know that 56% (n=240) of the respondents reported having graduated between 2000 and 2019. Cumulatively, respondents reported holding 690 formal qualifications from public ALS institutions, 12 qualifications from a private ALS and 108 qualifications from a variety of other regional and international institutions, including non-architectural formal qualifications, indicating a diverse background of participants.[299]

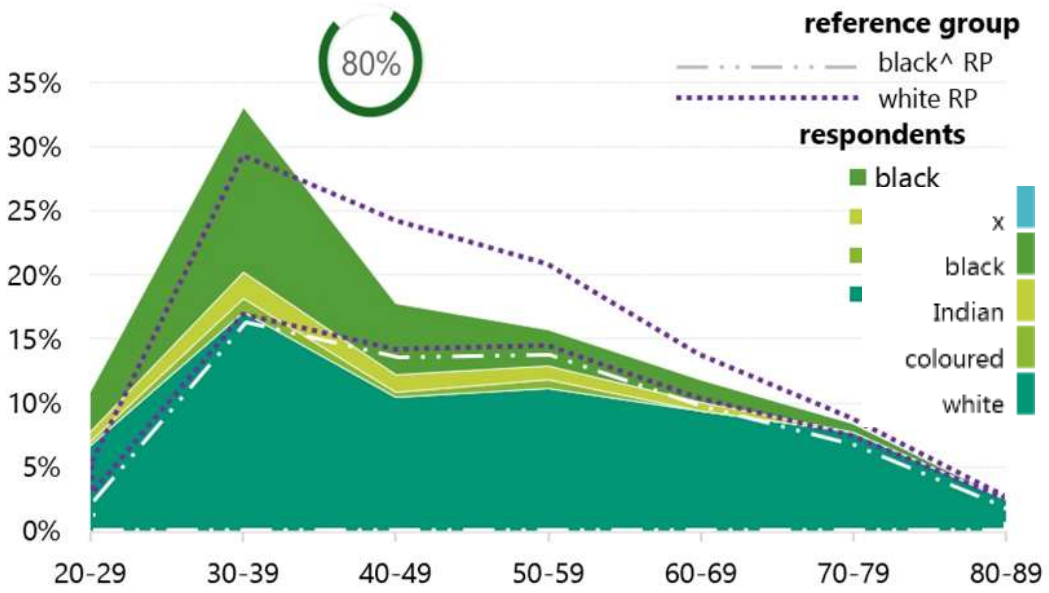


Figure 37: Age and race demographics of respondents (not normalised), with SACAP RPs proportions indicated in dotted lines for reference

5.2.4 Practice form, size, and respondent role within organisations

Survey respondents were significantly more likely to be primarily affiliated with classic practice (55%) than other forms of practice, such as specialised services (16%) and project and programme management (11%), as shown in *Table 11*. If the role of ALS is to prepare APs for conventional roles,[300] survey results indicate that they are achieving this mandate.

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[298] *It does not appear to be a hysteresis effect from the ALS enrolment trough of 1996 and 1997, based on my age analysis of the SACAP membership database. It is purely speculative that the relative over representation of 20- to 39-year-olds relates to their social media engagement and survey distribution methods and that 40- to 49-year-olds were least able to avail time. The excellent representation of older categories is notable.*

[299] *Of non-architectural qualifications, the most common types named were project management and business administration.*

[300] *A review of official university websites conducted by the author in 2024, showed that all public ALS, except for one, explicitly orientate their schools to satisfying SACAP requirements.*

Respondent affiliation by practice size is visualised in *Figure 38*. The relationship of the distribution of practice size is thought to reflect the overall profile in the profession, but this could not be verified due to lack of data.[301]

Table 11: Primary forms of practice of survey respondents

Practise form	Portion of respondents	n
classical practise	55%	196
building control	3%	10
teaching and learning	5%	17
project or programme management	11%	41
specialised services	16%	58
research of the built environment	4%	15
other	6%	20

Gender balance seems to be best achieved for the medium-sized practices, which are the rarest. White APs were most likely to be located in tiny or large-scale practices. Survey findings indicate that gender and race accumulate at different rates in different practice sizes (at least among survey respondents), however without illuminating what the implications of practice size are for APs and architecture. This is discussed in a subsequent section of this thesis.[302]

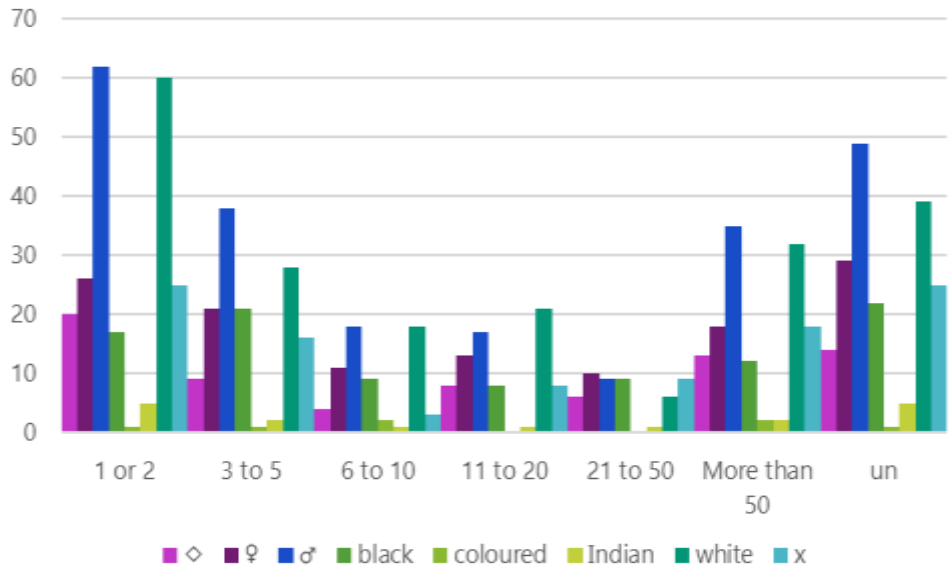


Figure 38: Respondents' practice size by gender and race

The current role of the respondents disproportionately consisted of very senior professionals, as shown in *Figure 39*, with diversity in both race and gender. This was surmised to arise from the fact that the size of practice associated with survey

[301] *See Size, structure and configuration of practices on page 141.*

[302] *See Size matters on page 251.*

participation was heavily biased toward individuals associated with tiny- (one or two people) and small-scale[303] practices, and a lack of large-size[304] practices and organisations. The latter category was dominated by the government, universities, and a few corporate employers. About 15% of survey respondents reported working in the public sector, of which about 30% were involved in building control. Respondents' organisations for primary work activities are shown as public, private, non-profit or academic *Figure 40*.

[303] *Three to five persons*.

[304] *More than 50 people*.

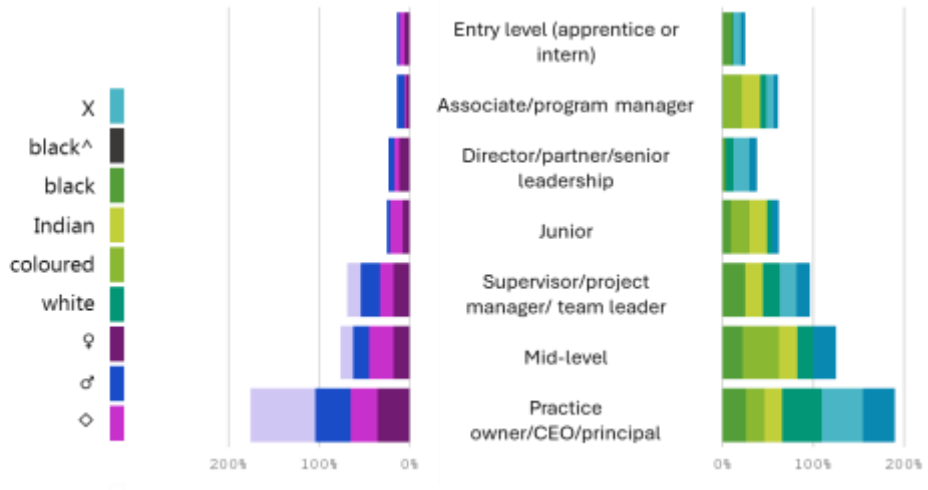
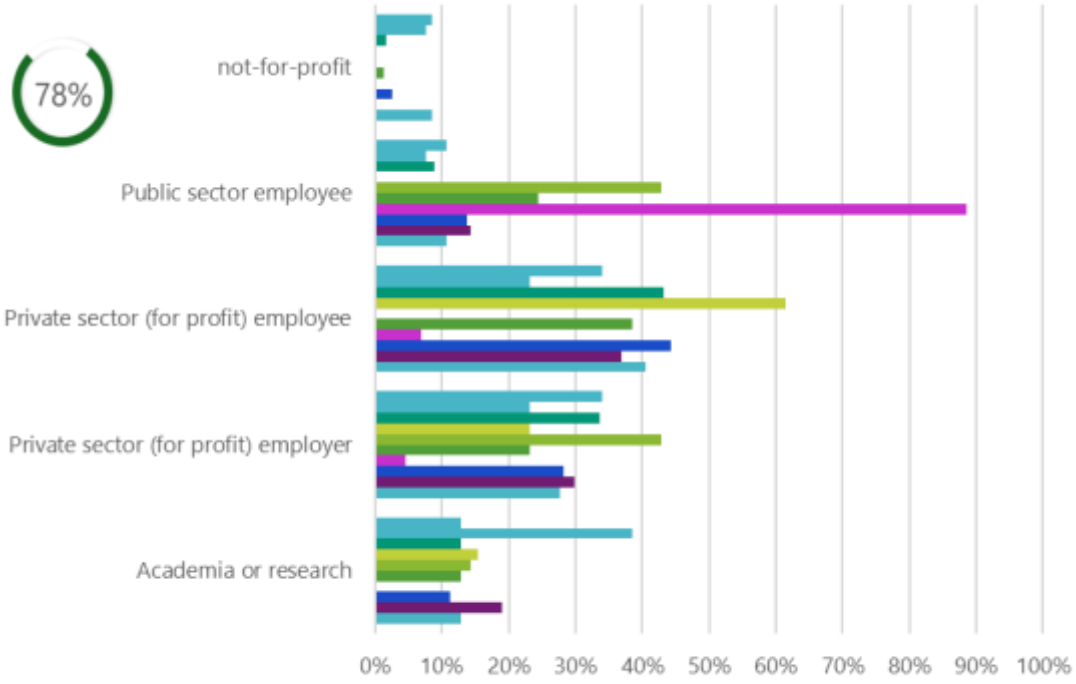


Figure 39: Respondents' demographics by current role



	Academia or research	Private sector (for profit) employer	Private sector (for profit) employee	Public sector employee	not-for-profit
unspecified	13%	34%	34%	11%	9%
other	38%	23%	23%	8%	8%
white	13%	34%	43%	9%	2%
Indian	15%	23%	62%	0%	0%
coloured	14%	43%	0%	43%	0%
black	13%	23%	38%	24%	1%
◇	0%	5%	7%	89%	0%
♂	11%	28%	44%	14%	3%
♀	19%	30%	37%	14%	0%
X	13%	28%	40%	11%	9%

Figure 40: Respondents' demographics per sub-sector

5.2.5 Self-identification of respondents

The survey questions related to gender and race identification were presented as open-text fields to allow respondents to furnish nuanced responses without confining these to predetermined (binary or categorical) fields. Notwithstanding the testimony provided through the survey that many individuals had encountered harm arising from race and racism, and, to a lesser but considerable extent, gender, and sexual orientation,[305] the majority of respondents simply indicated their preference in conventional form. Notably, 89% of respondents elected to answer the question on race, with five per cent (n=18) providing an answer other than 'black', 'white', 'coloured' or 'Indian' (or equivalent).

About 85% of the respondents completed the gender field. Of these 98% elected to answer 'female'('♀'), 'male'('♂'), (or similar), with two per cent providing alternative responses ('◇').[306] Respondents who elected to answer the gender identification question did not necessarily opt to answer the race identity question and vice versa. Unspecified race or gender were denoted 'x'. The question or its non-binary / non-categorical framing on race and gender, elicited a small minority of facetious and angry responses, in addition to sincere ones. For example, for gender "STUPID STUPID QUESTION - DO NOT SUPPORT THIS NWO TRASH!!!" and "I STRONGLY DISAGREE WITH THIS QUESTION BUT IF I HAVE TO ANSWER I WOULD SAY WHAT GOD MADE ME (A MAN)"; and for race "Identify as purple", "Fuck Off!" and "Unrepentantly WHITE".

A brief reflection on the facetious and angry responses, though uncommon, is warranted. The sociological insights of Bourdieu were consulted. In this context, the use of binary or categorical terms may have seemed to reflect a dominant societal norm - doxa - in which, overwhelmingly, respondents were accustomed to classifying themselves and others in conservative categories of gender and race. Respondents who found the open-ended format offensive may have encountered a clash between their illusio and the unfamiliar question format. The open-ended format of questions may have challenged established categories, unwittingly confronting respondents' tacit (maybe preconscious) acceptance of dominant cultural norms and values, destabilising familiar classification protocols, and being perceived as symbolic violence. In expressing their annoyance, some of the aggravated minority may have been defending the traditional classifications they were accustomed to, thereby resisting the introduction of 'new', more fluid categories. A few of the respondents (in the minority) rejected the question per se, for example, "Why is this relevant-sexist" and "It further categorises people". A 48-year-old male noted: "D, I, E... INTERESTING. THIS IS A POLITICAL DRIVE and social experiment. We must inspire all students, support the diligent ones, make creativity a central goal of academia, and rid ourselves of labels". These responses point to a preference to gender- and colour-blindness, in which these categories should be dispensed.[307] Based on the preceding analysis of survey participant rates, population vs. respondent characteristics, practice form, size and roles, the survey respondents had reasonable diversity with respect to qualification attained, career stage, age, gender, and race demographics. Survey results are now discussed.

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[305] *See 5.3.4 ARCHIculture on page 196.*

[306] *That virtually no respondents took the opportunity to provide gender fluid identity descriptors could indicate that survey did not reach this population, however in the overall text responses there is evidence that at least three respondents consider themselves members of LGBQTA+ communities.*

[307] *See 8.1.3 Why not colour- or gender- blindness? on page 256.*

5.3 Survey Results

5.3.1 The field

In seeking to understand the field of study from the actors themselves, the instrument carried several direct questions related to current professional working status, feelings of belonging and perception of societal views on the field.

Working status

This section characterises respondents' profiles relative to their current work status and demographics to distinguish between positive, benign, and pernicious motives for staying and leaving.[308] and to rank their relative occurrence. It also seeks to discern where the leavers went and the prospects for drawing them back into the fold. The current work status per gender and race exhibits some variability. See *Figure 41*. Some 97% (n=416) of the survey respondents answered a question related to their current work status. Most survey respondents were active in the field, mostly locally. Notably,18% (n=75) of the respondents indicated that they were not currently working in the architecture profession, and 17% (n=70) indicated that they were primarily involved in projects or activities outside of South African borders, with 61% (n=271) indicating that they were active primarily in South African projects or activities.

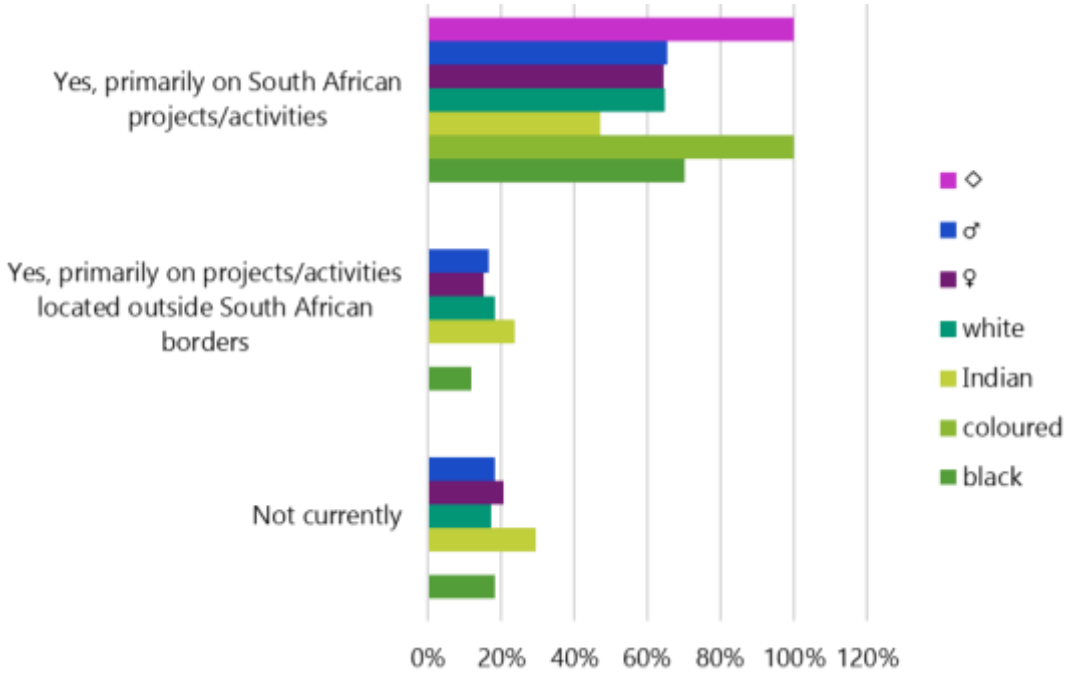


Figure 41: Work status by age and gender

[308] *Leaving the profession may be temporary or permanent and may not reflect that the field is pathological, as in when individuals pursue studies or retire after a satisfying and productive career. Moreover, remaining within the profession is not necessarily indicative that an individual is happy and productive, as they may merely consider their options limited or their frustrations transient. These were generally regarded as positive or benign reasons.*

Seven per cent of the respondents indicated that they were retired or semi-retired. Seven per cent of the respondents indicated that they had emigrated (n=32), of which nine were black^[309] and 14 women. If the survey respondents are taken as representative of the larger community of APs, applying proportionality, such a finding contradicts a stereotype that emigration is a white and male phenomenon (Vice, 2017:17-18; Mabandla & Marchetti-Mercer et al., 2023), echoing emerging research which reveals a more complex and evolving situation, indicating that black^ South Africans are also part of the emigration narrative (Moyo, 2021; Mabandla & Marchetti-Mercer et al., 2023). Sixty respondents indicated that they were currently students, of which 25 indicated that their studies were not in the architectural field.

The 35 respondents who indicated that they were not currently working in the profession, retired or students, were designated as 'leavers'. Of the 35 leavers, the majority (n=31) indicated that they were working in another field. The highest number of graduates reported working in project management (n=6) or real estate (n=5), while the others indicated a multiplicity of other career endeavours. Leavers overwhelmingly left during the architecture practice phase (64%), with 16% reporting leaving while searching for employment. See *Figure 42*.

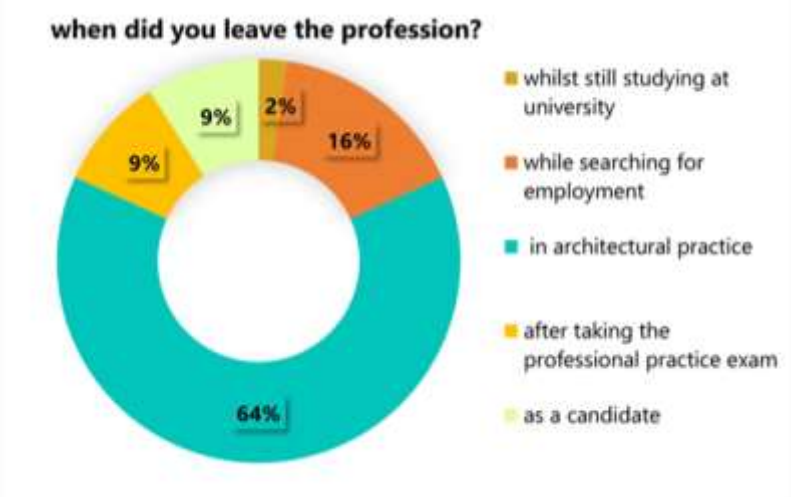


Figure 42: Leavers' timing

The leavers cited multiple reasons for leaving, as shown in *Figure 43*. The most common reason cited was poor compensation (n=18), closely followed by lack of positions or employment opportunities (n=15). As this question applied only to a small minority of respondents, the results should be viewed as preliminary when viewed through the lens of gender and race.

Slightly over half of the leavers (n=18) indicated that they could be persuaded to return, while 17 (49%) indicated that they would not be willing to return. The respondents elaborated their answers about returning as set out in *Text Box 1*.

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[309] *This survey did not distinguish between black South Africans and black foreign nationals. See also APs in motion: emigration, immigration and nomadic work.*

Text Box 1: Respondents' elaborations on leaving the profession (most to least likely to return, (with ChatGPT AI-assisted ranking.[310]

1. *I most definitely want to continue to pursue this profession until I'm a professional architect. (25-year-old)*
2. *Architecture is something I consider a passion, I used to design buildings on sketch up and lumion just for fun, I enjoyed it and then my laptop also stopped working so any opportunity I would get to get back, I would grab with both hands (31-year-old black male)*
3. *If I may get a good-paying entry level position (24-year-old black female)*
4. *If there is more potential for flexible working conditions (29-year-old female)*
5. *Maybe later in life via a mentor I'll start my own practice. (29-year-old white female)*
6. *I would return once its possible to attain professional status through other means other than having to subject yourself to anothe professional who in all likelihood sees you as possible futurecompetition (37-year-old black male)*
7. *I have helped other Architects and the experience was different (31-year-old black male)*
8. *If SAIAT protected its members against over working and bad business practices that the industry enforces and creates a salary bracket for the different categories that is realistic and equal to that of other industries. (30-year-old)*
9. *Fair compensation and a dog friendly office (male)*
10. *Architects have little to no control of a project in commercial and real estate (36-year-old male)*
11. *If I can find a suitable position that pays as well as I am currently earning. (white male)*
12. *Difficult to say - my earning capacity is much higher now, so difficult to go back to an industry i never really loved for half the pay (39-year-old white male)*
13. *It feels harsh to say I would never return. I really did enjoy my time as an architect! But working in the IT space now, everything is so fast paced, I think it would be very frustrating to return*
14. *Not unless the South African Construction industry adapted to a structure like that of the UK / Aus (31-year-old white male)*
15. *SACAP needs to get its act together, fee's need to be regulated by law, SACAP needs to change from being a fee collection organisation to more architecture driven orgaonisation, CPD's are a waist time and honestly expensive, every year or every month going for something over and over that is the same. CPd's have become nothing more than a money driven programme led by organisations which have them. no one wants to sit for 4 hours and listen to someone speak about his life and still pay for it or attend a seminar on a product for 3 hours, pay for it and then next year the same thing over and over. i am all for career development but CPDS are a waste of time and money. (49-year-old)*
16. *There is too much politics weighing on every field in South Africa. BEE is just a box to tick, and starting to be exclusionary to white practitioners. (white female)*
17. *There is no place for people of colour in the profession to make their mark. Just think the award for the 2023 Pritzker prize is a white, British architect. The industry as a whole is just incredibly recessive. (35-year-old Indian male)*
18. *I have helped other Architects and the experience was different (31-year-old black male)*

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[310] *ChatGPT was recruited for ranking this open-ended question from most to least likely to return. Output was critically reviewed by the author prior to insertion into document. All AI-assisted analysis work is clearly marked in the thesis manuscript. Refer to the 0 Section: Use of technology on page 47.*

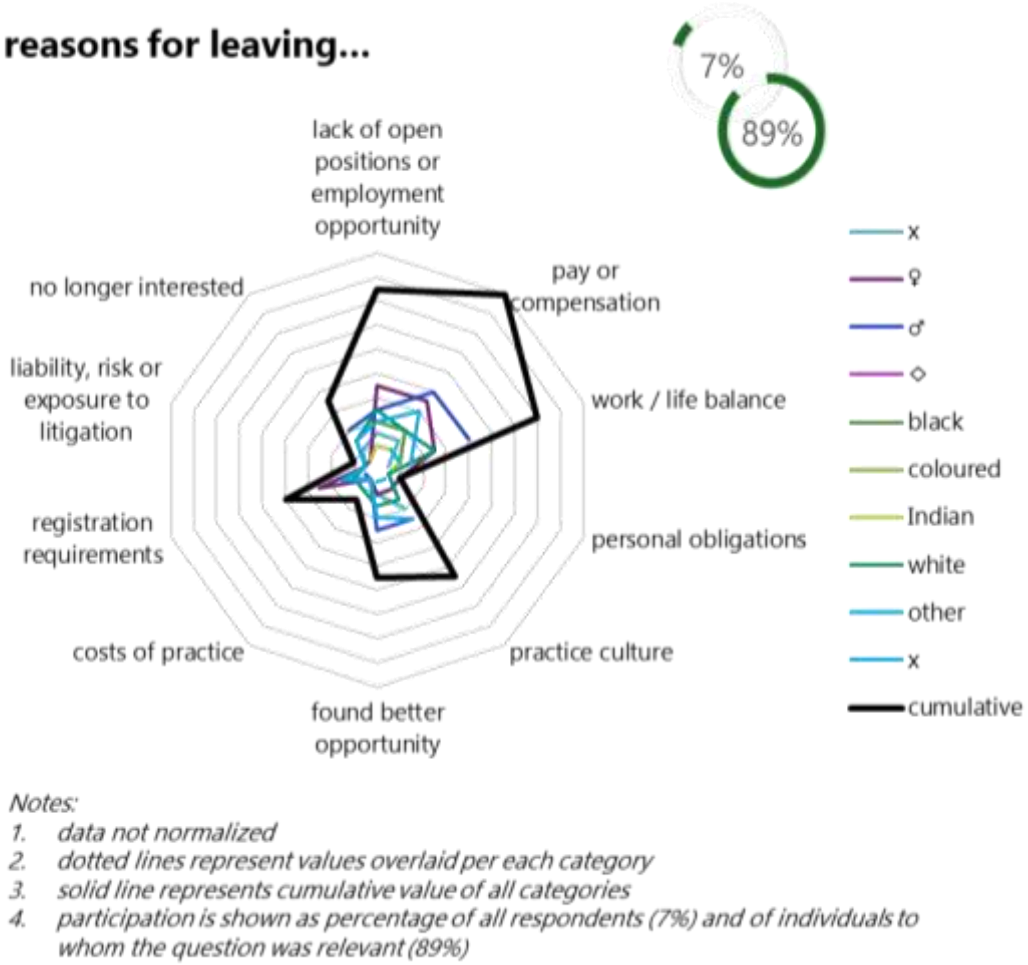


Figure 43: Leavers' reasons

Survey responses exhibited a large variety of concerns, motivations and attitudes related to leaving the profession with almost as many themes as respondents, resonating with the findings from the literature.[311] Responses highlighted the complex interplay of personal interests, economic realities, professional aspirations, and broader societal dynamics in the field. See *Text Box 1*. Respondents 13 and 14 ruled out returning. Some respondents cited financial considerations (3,11,12), political dynamics (16), structural issues (8,10,14,15), and issues related to inclusion (6,16,17). Although two respondents expressed keenness to return (1, 2), for nearly half (3, 4, 5, 6, 8, 9,11,14) return was conditional. Several responses convey a sense of disappointment (10,15,17), regret (13) and missed opportunity (2,7,17). One 31-year-old black male with a certificate from a private institution reportedly left the profession to become a 'delivery boy' (his phrasing), because of a malfunctioning computer. Another respondent noted~

> *There is much still to be done to attract a representative crop of students into tertiary education who understand what they are getting into. The lack of understanding of what is involved is a disadvantage to many undergraduates. Equally, more should be done to retain those who have experience in the profession. I wanted to stay in South Africa and continue contritibuting to my community. Especially considering my education and experience gained there. However I could not find opportunities in the private sector,*

[311] *See 3.3.3 Professions, architecture and attrition* on page 79.

> *unless I was willing to take a 70% pay cut. And I couldn't gain advancement in government because of my ethnicity. Similarly starting a small private practice is not an option for a white person any longer. I can only think of a few white peers who continue to survive as small practice owners, given BBBEE limitations, one is somewhat assisted by being a female. The others, are in extreme financial difficulty. Of white classmates, I know of 2 (out of 35+) who continue to work as south african Architects. Most gradually emigrated, and the remainder left the profession to pursue business opportunities that offer reasonable pay. If that isn't a crisis?*
>
> (58-year-old white male)

Perceptions of belonging

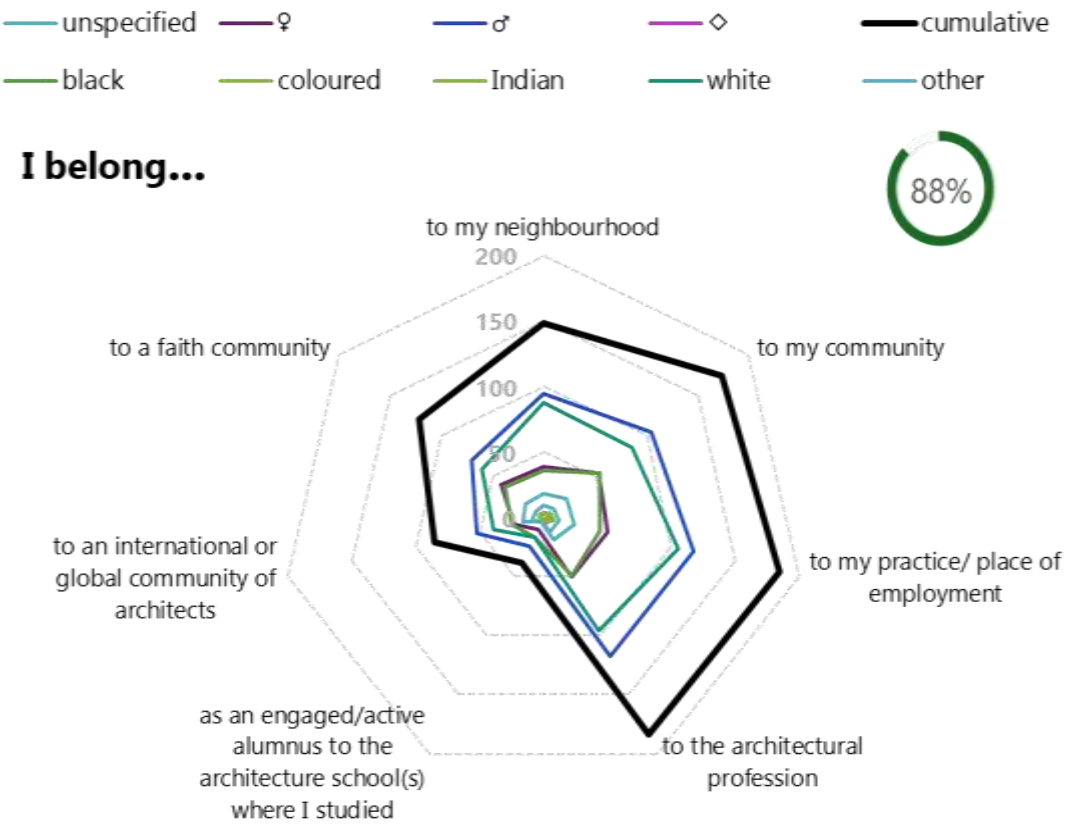
Survey participants were invited to indicate multiple affiliations with a variety of professional and non-professional membership groups, as shown in *Figure 44*.[312] This, when applied to practice, profession, and social context was intended to be a proxy for a perception of being 'placed' in that social field. Strikingly, responses exhibited broad consistency for membership groups, irrespective of individual or intersectional demographic categories. The respondents commonly lacked a sense of belonging to an international or global community of architects (n=85) and as active or engaged alumni of their ALS (n=38). The respondents generally indicated a strong sense of belonging to their community (n=174) and to their practice or place of employment (n=184). I had postulated that more black^ and women respondents would experience a mismatch between their doxa, and the dominant values, norms and expectations embedded in the architectural field, given a reputation among some scholars of the western-centric, heteronormative and masculine orientation of the architecture profession (Van Tonder, 2022:240; Niculae, 2012), the construction industry (Akinlolu & Haupt, 2020) and the workplace in general (Ndzwayiba & Steyn, 2019). This doxa disconnect, in turn, I had expected, could predispose black^ and women APs to report a sense of belonging to neighbourhoods, communities, and faith communities more readily than to place of employment or to the profession. Whilst the data collected and summarised in *Table 12* provides some subtle evidence of such demographic-based variance, the general pattern is congruence. Unsurprisingly, 'I belong to the architectural profession' was more commonly selected among respondents reporting that they were currently active 'primarily on South African projects/activities', than those engaged 'primarily on projects/activities located outside South African borders' (45% and 37%, respectively), and rarer (21%) among leavers. The expressed lack of belonging among the survey respondents as engaged alumni (shown in *Table 12*) to their alma maters was a surprise finding, because it did not correlate with a strong negative sentiment towards ALS.[313] It was striking that older APs (>70 years) indicated a stronger bond with their neighbourhood and their alma mater than any other age group.[314] A further point of interest was that among the respondents currently active in South Africa, nearly two-thirds (62%) who were not RPs, nevertheless reported 'belonging to the profession'. This indicates that belonging to SACAP is not necessarily construed as a prerequisite to having a feeling of belonging to the profession.

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[312] *'Belonging' was not defined for survey respondents, and therefore it was expected that it was interpreted in accordance with its natural language usage.*

[313] *Refer to 5.3.2 Institutions on page 173.*

[314] *The small number of respondents in those categories should be noted. Refer to Figure 37: Age and race demographics of respondents (not normalised), with SACAP RPs proportions indicated in dotted lines for reference on page 144.*



Notes:
1. *data not normalized*
2. *dotted lines represent values overlaid per each category*
3. *solid line represents cumulative value of mean of categories*
4. *the 'as a valued resident or citizen of South Africa' factor was removed due to potential ambiguity*

Figure 44: Respondents' sense of belonging to various identity groups. "I belong ...."

Table 12: Response rates to the 'I belong ….' survey question per gender, race and age cohort

	to the architectural profession	as an engaged/active alumnus of the architecture school(s) where I studied	to my community	to my practice/ place of employment	to my neighbourhood	to an international/global community of architects	to a faith community	**Average deviation**
black	49%	16%	55%	44%	35%	26%	39%	**10%**
coloured	57%	14%	57%	43%	43%	29%	29%	**13%**
Indian	24%	0%	35%	47%	18%	18%	24%	**10%**
white	47%	8%	42%	51%	43%	19%	29%	**13%**
ave. deviation/race	**10%**	**5%**	**9%**	**3%**	**9%**	**4%**	**5%**	
♀	34%	8%	42%	39%	30%	18%	32%	**9%**
♂	49%	11%	46%	51%	42%	23%	31%	**13%**
ave. deviation/gender	**7%**	**1%**	**2%**	**6%**	**6%**	**2%**	**1%**	
20-29	24%	7%	36%	31%	27%	16%	27%	**7%**
30-39	40%	9%	34%	40%	28%	20%	29%	**8%**
40-49	38%	8%	38%	48%	34%	20%	31%	**10%**
50-59	39%	6%	48%	46%	35%	28%	19%	**12%**
60-69	46%	4%	50%	48%	44%	21%	23%	**15%**
70-79	61%	18%	57%	50%	43%	4%	39%	**16%**
80-89	44%	33%	33%	33%	67%	11%	11%	**13%**
ave. deviation/age	**7%**	**8%**	**8%**	**6%**	**10%**	**6%**	**7%**	

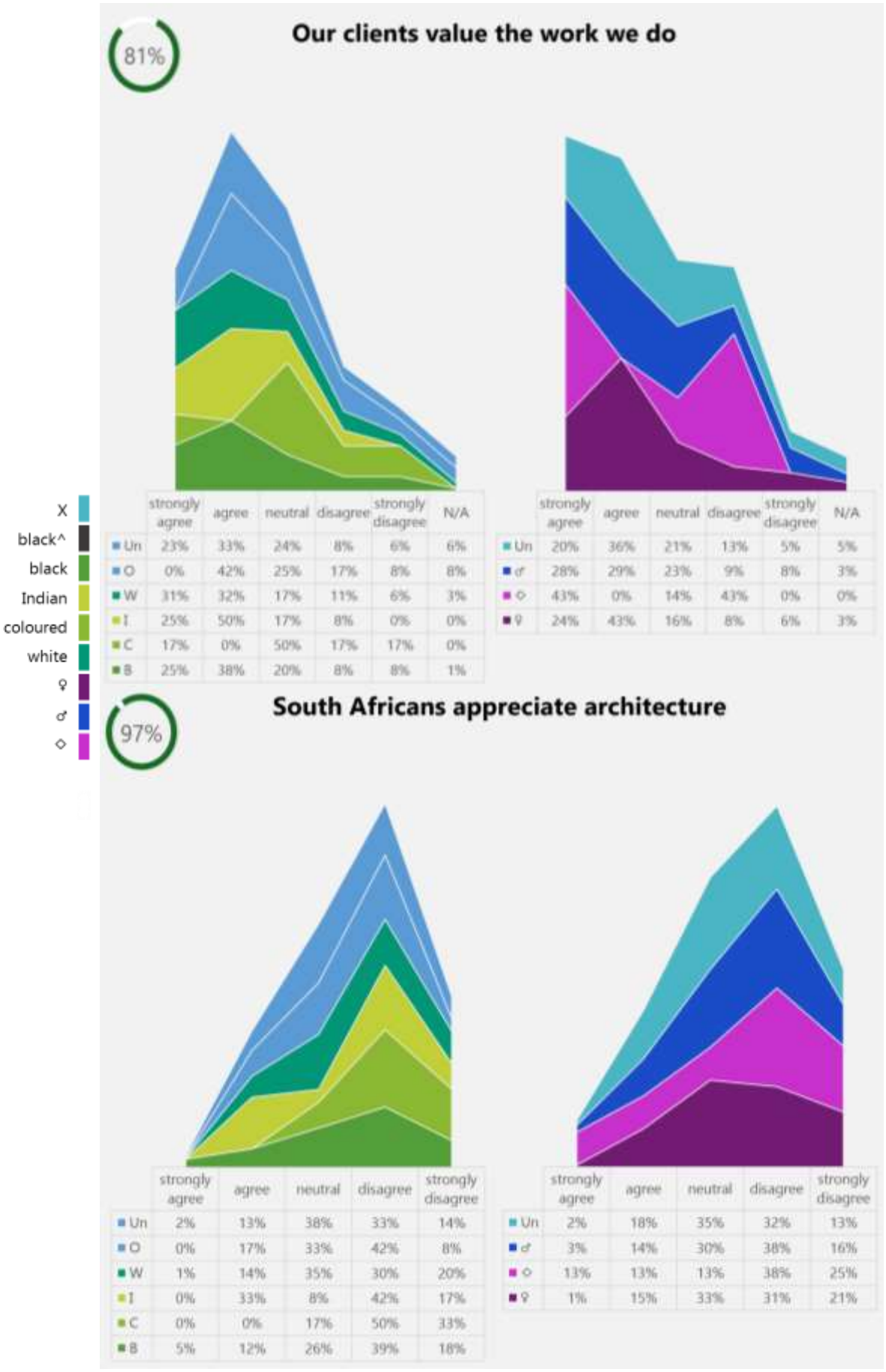
Portrayal in society and media

The survey results shown in *Figure 45* reveal an intriguing perception of APs in South Africa regarding the appreciation of their work. Over a quarter of the respondents (26%) strongly agreed, and 34% agreed that their clients valued the work they did. This demonstrates a positive sentiment among those who directly engaged with architectural services. Only two per cent strongly agreed and 14% agreed that 'South Africans appreciate architecture', implying a lack of widespread recognition and appreciation for the artefacts produced by APs among the general population. Similarly, a mere two per cent strongly agreed, and 16% agreed that 'architecture professionals are generally valued in South African society', as shown in *Figure 46*. This suggests a broader societal perspective that is perceived to undervalue the architecture profession.

As shown in *Figure 46,* none of the respondents strongly agreed, and only three per cent agreed that the 'processes of producing buildings and architects' role in these are understood and appreciated by the general public in South Africa'. These results highlight a significant disparity between the way APs perceive their value within client interactions and the way they perceive that they are regarded within South African society. However, no scholarship or data were found on perceptions of the public of APs, except related specifically to clients (Eke & Aigbavboa, et al., 2017)[315] were found to explain, support (or refute) this finding.

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[315] *To conclude this, I made use of Copilot, Google Scholar, Elicit and SCISPACE AI, and Litmaps on 25 August 2024 applying the following prompt: "What scholarship or data is available on the public's knowledge, attitude, or perception of building production, and/or the role of architecture professionals in the production of building, specifically in South Africa?"*



	strongly agree	agree	neutral	disagree	strongly disagree	N/A
Un	23%	33%	24%	8%	6%	6%
O	0%	42%	25%	17%	8%	8%
W	31%	32%	17%	11%	6%	3%
I	25%	50%	17%	8%	0%	0%
C	17%	0%	50%	17%	17%	0%
B	25%	38%	20%	8%	8%	1%

	strongly agree	agree	neutral	disagree	strongly disagree	N/A
Un	20%	36%	21%	13%	5%	5%
♂	28%	29%	23%	9%	8%	3%
◇	43%	0%	14%	43%	0%	0%
♀	24%	43%	16%	8%	6%	3%

	strongly agree	agree	neutral	disagree	strongly disagree
Un	2%	13%	38%	33%	14%
O	0%	17%	33%	42%	8%
W	1%	14%	35%	30%	20%
I	0%	33%	8%	42%	17%
C	0%	0%	17%	50%	33%
B	5%	12%	26%	39%	18%

	strongly agree	agree	neutral	disagree	strongly disagree
Un	2%	18%	35%	32%	13%
♂	3%	14%	30%	38%	16%
◇	13%	13%	13%	38%	25%
♀	1%	15%	33%	31%	21%

Figure 45: Perceived appreciation clients and architecture

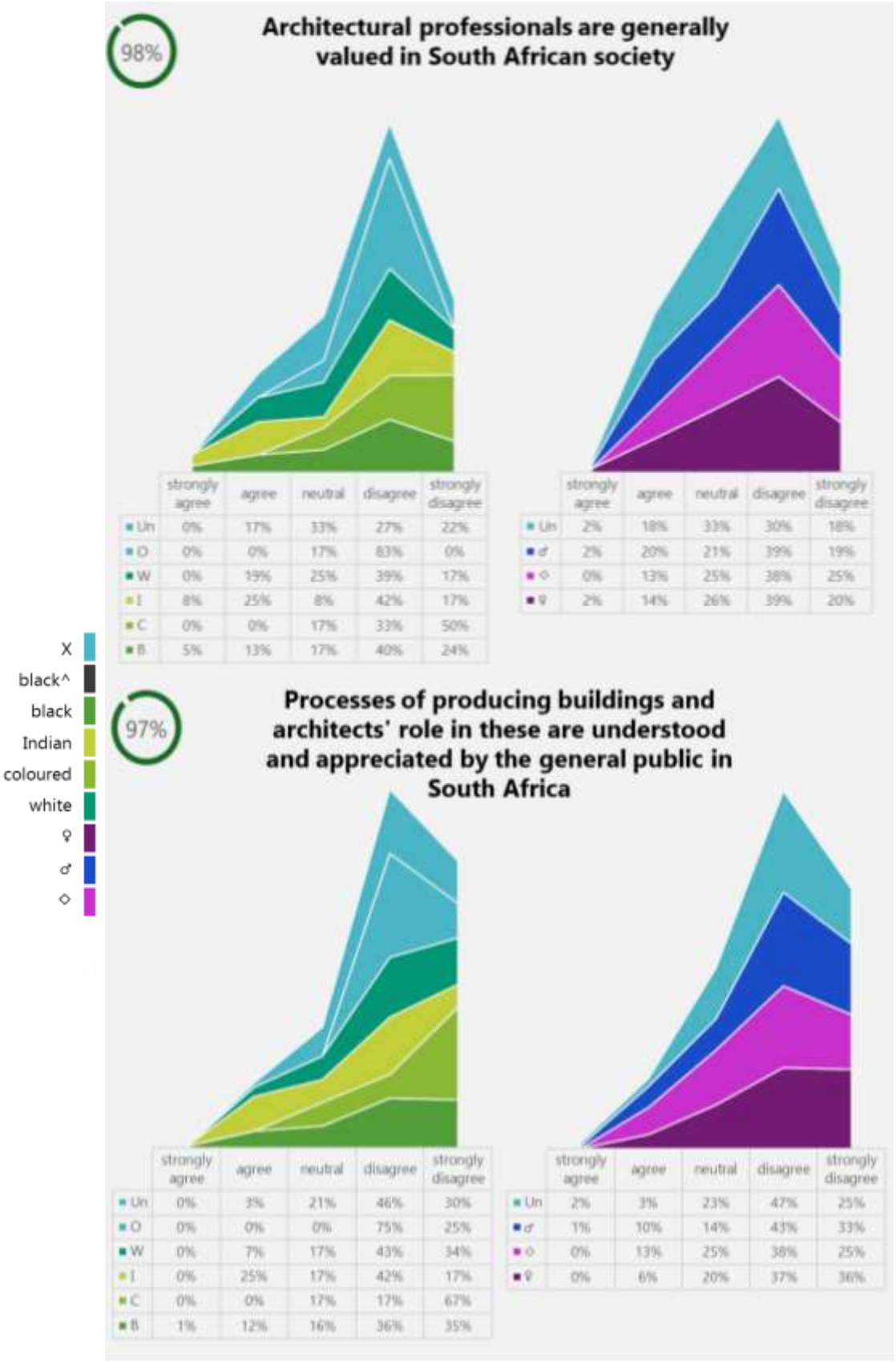


Figure 46: Appreciation of professionals and building production

This perceived lack of appreciation may be indicative of a potential malalignment in cultural capital valuation among the public, vis-à-vis the profession. This finding warrants further consideration and efforts to bridge the gap between the profession and the public's perception of it may be constructive, and is discussed in a subsequent section of this thesis.[316] This has a compounding effect in economic capital accumulation, as several of the respondents pointed to a clear association between perceived value, financial reward and belonging. For example,

> *The general public (and especially clients) should be educated more on the value of architecture professionals. A lot of people (mostly clients) I have encountered during my career believe themselves to be designers and tend to force their bad design decisions on the professionals (who then get blamed if and when things go wrong or don't look like they should). A lot of professionals I know have become disillusioned by this attitude and have left the profession to pursue alternative careers. The value of the fees that professionals charge should also not be as negotiable as it currently is - this impacts staff salaries, causing them to leave the profession as well. (You don't negotiate a consultation fee with a doctor or lawyer, so why do people feel that they can do it with architects?)*
>
> (41-year-old white female)

The potential of the portrayal of the profession in the media to enhance public recognition and appreciation of the profession was introduced earlier.[317]

Survey results regarding media portrayal (*Figure 47*) received an exceptionally high (97%) participation rate. Only one per cent of respondents strongly agreed, and 12% of respondents agreed with the statement that 'Architectural professionals are fairly represented in the media'. Since the early 2000s, individual practitioners, firms, and the profession at large have had increasing opportunities to utilise social and digital media locally and globally (as its use exponentially increased) to position themselves and their work (individually and as a field) to their stakeholders, such as clients, and to the public. Social media, with its presumed element of self-determinability, fared only marginally better. Only two per cent of the respondents strongly agreed and 15% of the respondents agreed with the statement that 'South African architectural professionals are visible and well represented on social media'.[318]

---

[316] *See 7.3.3 Varietal 3: Complex (or on page 247.*

[317] *See 4.3.2 (In)visibility of the profession in media on page 115.*

[318] *As the media is a potentially powerful ally in improving APs' position in the public imagination (Refer to 4.3.2 (In)visibility of the profession in media on page 115), and social media can be directly influenced by the profession, a finding of this survey was that this was not effectively exploited by the profession. It is therefore discussed further in a subsequent section of the thesis (7.3.3 Varietal 3: Complex (or on page 247).*

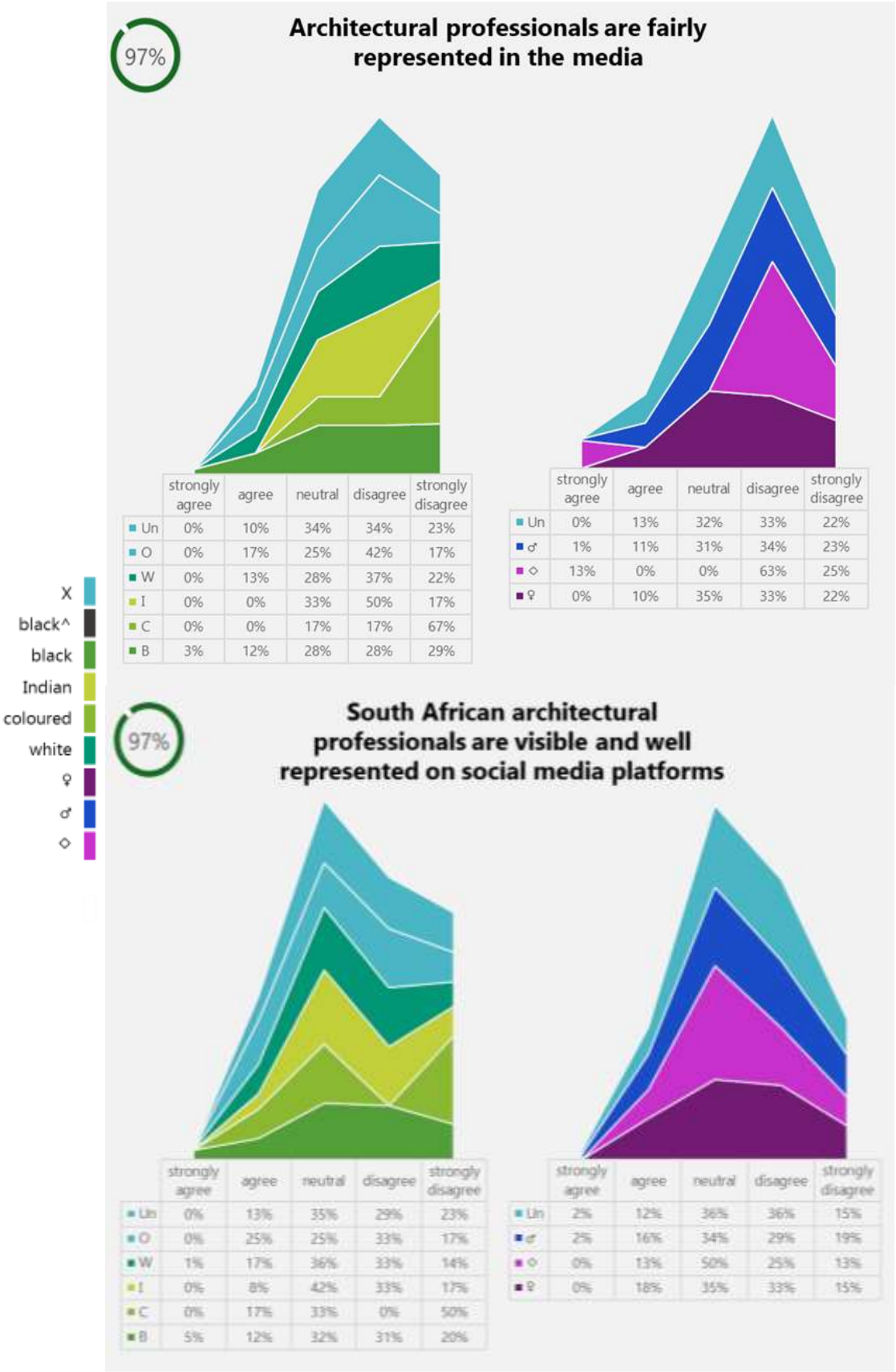


Figure 47: APs perception of media portrayal and visibility

5.3.2 Institutions

The survey responses were analysed to explore the role of ALS, SACAP, VAs, and 'other' professional institutions in transmission of habitus and in supporting cultural, economic, and capital accumulation, while also discerning how these may have differentially affected women and black^ APs.

ALS

It was shown in a preceding section that ALS play a crucial role in the profession as upstream gatekeepers, and powerful shapers of the demographic pipeline.[319] Although the acquisition of relevant habitus begins before embarking on formal studies during childhood,[320] habitus transmission specific to the profession is largely transmitted in ALS, and in early practise (Banham, 1991:23; Stevens, 1998:168-2010; Cuff, 1992:109-110). As shown in *Figure 48,* over two-thirds (69%) of respondents reported that they did not regret pursuing a career in architecture whilst they were students. A similar number (65%) reported that their architecture school and their classmates encouraged their professional development and advancement. Very good participation rates were achieved in the Likert-style questions on perception related to academic experiences. See *Figure 49*. There was a comfortable majority of positive feedback. However, there was also considerable neutrality, amplified by the text responses, which made frequent reference to mixed and isolated negative experiences at ALS. Tacit acknowledgement of status hierarchies, such as those elaborated and perceived quality of credentials were embedded in some survey responses.[321] For example, one respondent appealed to the profession to "*publicly promote ALL professionals without stigmatising registration levels, or study institutions…*". Another offered the following opinion~

> *The architecture schools are in a bad state in my opinion. The boundaries between architects and technologists have been blurred and the result are graduates that fall in neither categories. For example, (1) graduate architects who have zero technical understanding who believes thaye are just designers, or (2) technologists who want to be designers but cannot fulfill their basic professional criteria….there needs to be a drastic rethink on architectural education and also the practical experiene of academia*.
>
> (45-year-old white male)

The survey also found support for the assertion that the public finds the proliferation of titles confusing, and, moreover, indicated that even clients may be unclear~

> *Most average clients do not know the difference between an architect and other architectural professionals - to them if a person draws plans that person is an architect, ot 'architects are too expensive'. This suggests to me that in the average residential market, the role of the architect is not valued at all. In the higher end market some clients may value the work of an architect or the work of exceptionally talented other architectural professionals. Some clients have expressed confusion over the different architectural professionals and the great variance in fees - and do not understand the reasons for it so they go with the cheapest.;creativity ability to listen to clients business acumen confidence*
>
> (gender diverse 67-year-old)

---

[319] *4.4.1 Portal structuration of the field on page 120*.

[320] *For example, in instances where APs are exposed to individuals (such as parents or acquaintances) who were in the field*.

[321] *See 4.3 Symbolic Capital, Titles and Entitlements on page 111*.

Overall, 15% of respondents strongly agreed and 45% of respondents agreed that their education 'prepared them well for a career in architecture', with 18% disagreeing or strongly disagreed. Some open-ended text answers indicated perceived deficits in preparedness. See *Figure 49*. For example, "stop dropping the level of education to promote those that should never be qualified as professionals" and "Way too many students being produced with way too few skills. Basically zero oversight on what is required to become a professional" (both white respondents). One fifth (21%) of respondents strongly agreed and 41% of respondents agreed that faculty[322] made them excited about learning, as shown in *Figure 50*. One respondent noted~

> *I had a handful of good and competent lecturers, who would motivate me, and encourage me to continue pursuing architecture. Even when the overal journey was unpleasant and frustrating - the support and motivation by my academic idols inspired me*.

Remarks about arrogant, unprofessional, dismissive, and rude conduct of lecturers were common in the survey. For example,

> *The tendency of architects, and more specifically the academic staff, to form cliques and coddle their favourites. My time at university exposed me to blatant bias and favouritism that is inherent in this profession. I would argue that the toxic nature of the profession was also a constant source of frustration for me personally. The more inept, or incompetent a lecturer, professor, or architect is - the more vindictive the individual. I had personal experience with two individuals like this during my final year of studies. I almost considered leaving the industry completely because of them. And, surprisingly - my complaints and grievances are not directed at the stereotypical arrogant and condescending white male practitioners (my interactions with these personality types have been few and far between). In general, my greatest frustration and grievances came from the more pseudo politically-active, and contrarian, or wannabe revolutionary individuals*.
>
> (black male)

Often responses seemed to refer to specific, limited negative exposures, for example,

> *Architecture schools should value their students and attempt to treat them with respect instead of being rude and dismissive to students experience. I've witnessed and experience some lecturers being extremely rude to students about their work making them not continue in the profession. This being said, there are some great lecturers who are polite and professional. These lecturers luckily continue to inspire young architects and make up for rude ones! (:*
>
> (27-year-old white male)

Conversely, acquiring social capital and habitus to conduct their work in ways which resonate with students can also be challenging for faculty. A black lecturer, who regarded her students as clients, confided that in the context of her workplace~

> *[T]his is difficult [as], there is often much to review in the underpinning of foundational knowledge. it is sometimes challenging to negotiate value in this space. i had a student ask me only yesterday, 'what is the point in theorising space and place and our history if people don't know this, and we are born frees and don't really care and just want to be able to work and get an income?' - jarring reality that i am still reckoning with*.

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[322] *Specified as professors, lecturers, and other university staff.*

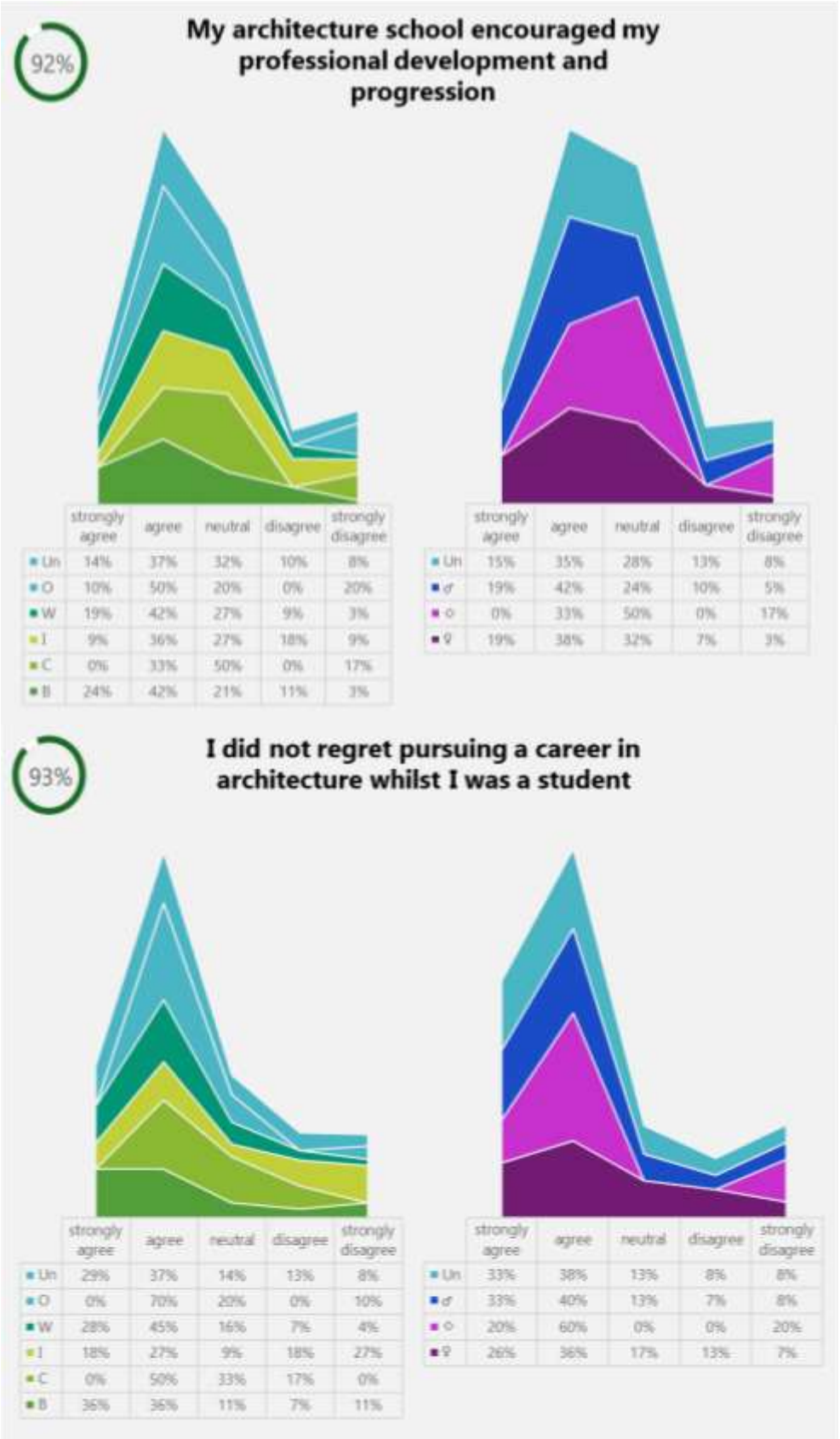


Figure 48: Lickert responses on encouragement and regret at ALS

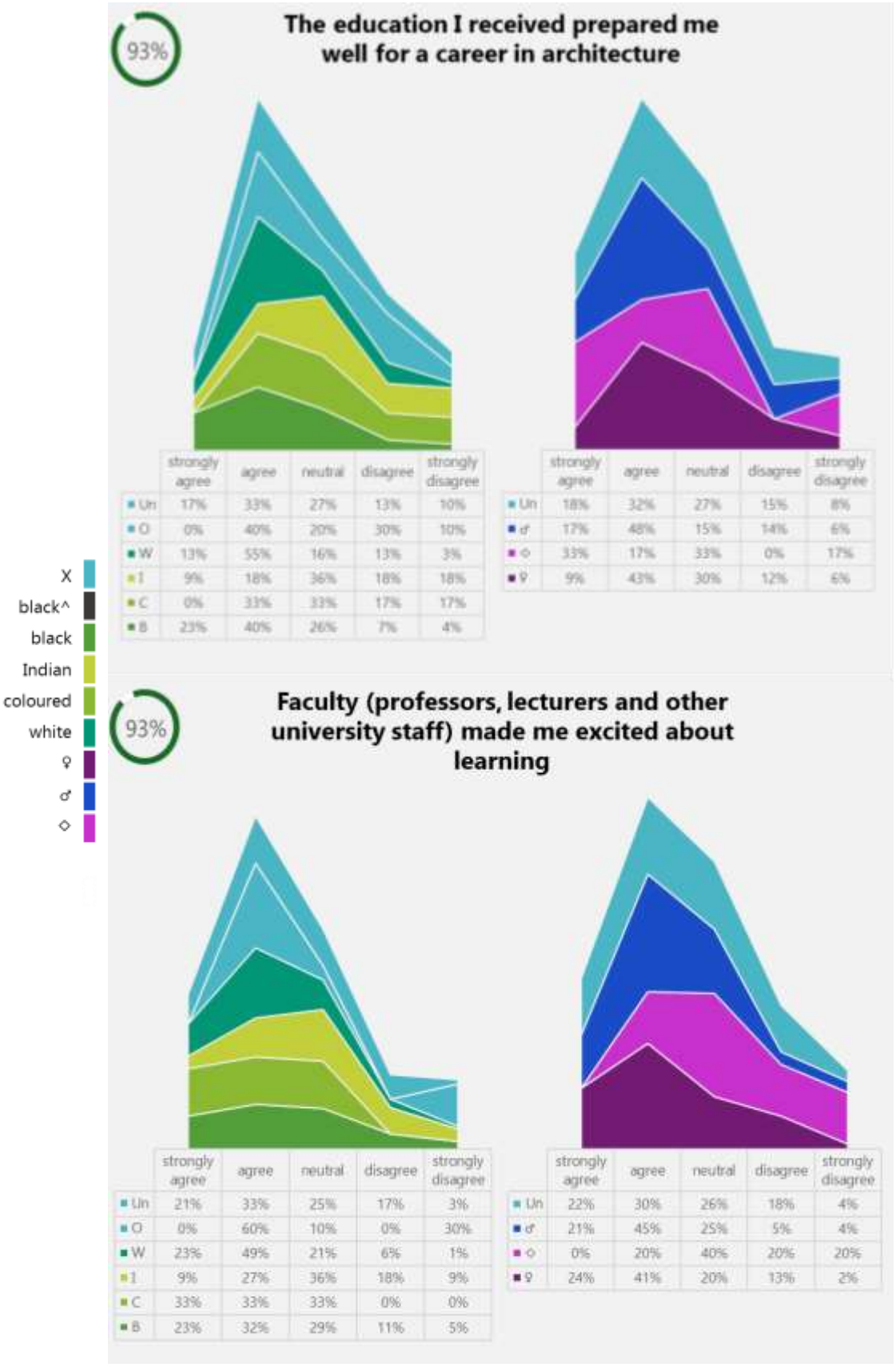


Figure 49: Lickert responses on learning and preparation at ALS

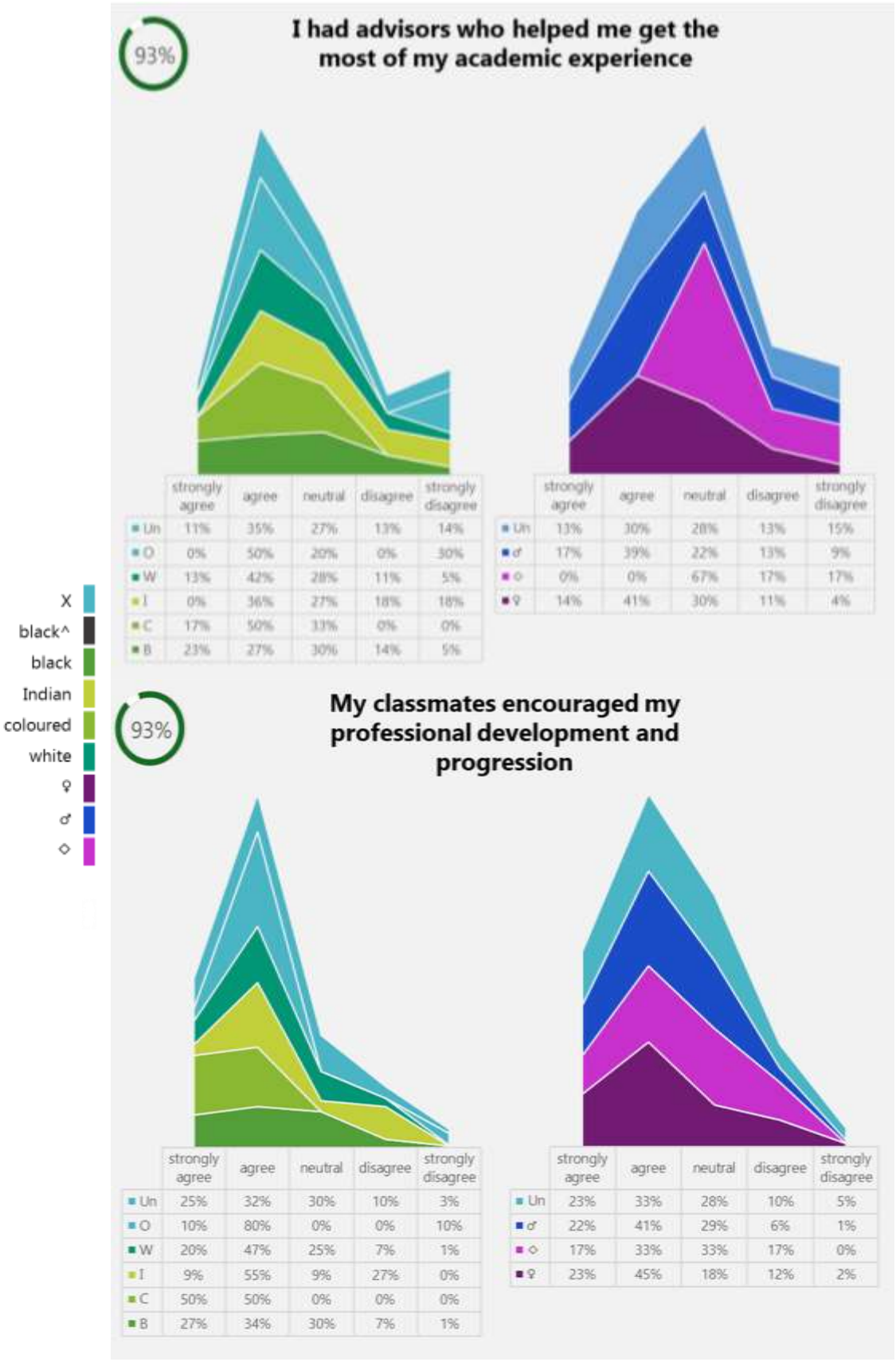


Figure 50: Perceptions of advisors and encouragement at ALS

SACAP

Preceding sections of this thesis extensively deliberated upon the role of the state and SACAP.[323] Herein, the focus shifts towards elucidating the interactions between APs and SACAP. SACAP's institutional landscape no longer exhibits hegemonic dominance by white males,[324] and its policy framework overtly espouses principles of equity and transformation. This ostensibly positions SACAP favourably to attract a diverse representation of RPs, including women and blacks^. However, the quantitative analysis presented earlier showed RP transformation was not aligned with the government's ambitions.[325] This survey data suggests a conspicuous trend of widespread dissatisfaction across all demographic groups about SACAP's operations.

Significantly, 97% of the survey respondents (n=418) indicated their registration status with SACAP. Two per cent indicated that they were not eligible, 62% (n=260) indicated that they were currently registered, and eight per cent indicated that they had never registered. A quarter of the respondents indicated that their registration had lapsed. Similar patterns were observed in registration status when disaggregated per gender or race.

As shown in *Figure 51*, the most frequently cited reason for registering was legal compliance (n=252). This was followed by the ability to open a practice or become self-employed, pragmatic considerations (such as signing municipal submissions) and the ability to use the professional title. The most common reasons cited for allowing registration to lapse were costs and not requiring registration for professional activities, whilst not being eligible and CPD requirements were not prominent. A few individuals remarked that SACAP had been helpful to them (n=4), of which two were immigrants who registered locally. In contrast, at least two immigrants expressed frustration regarding [work] visa requirements. Two respondents expressed gratitude: "I am thankful to SACAP for offering online seminars, workshops, conferences etc" and~

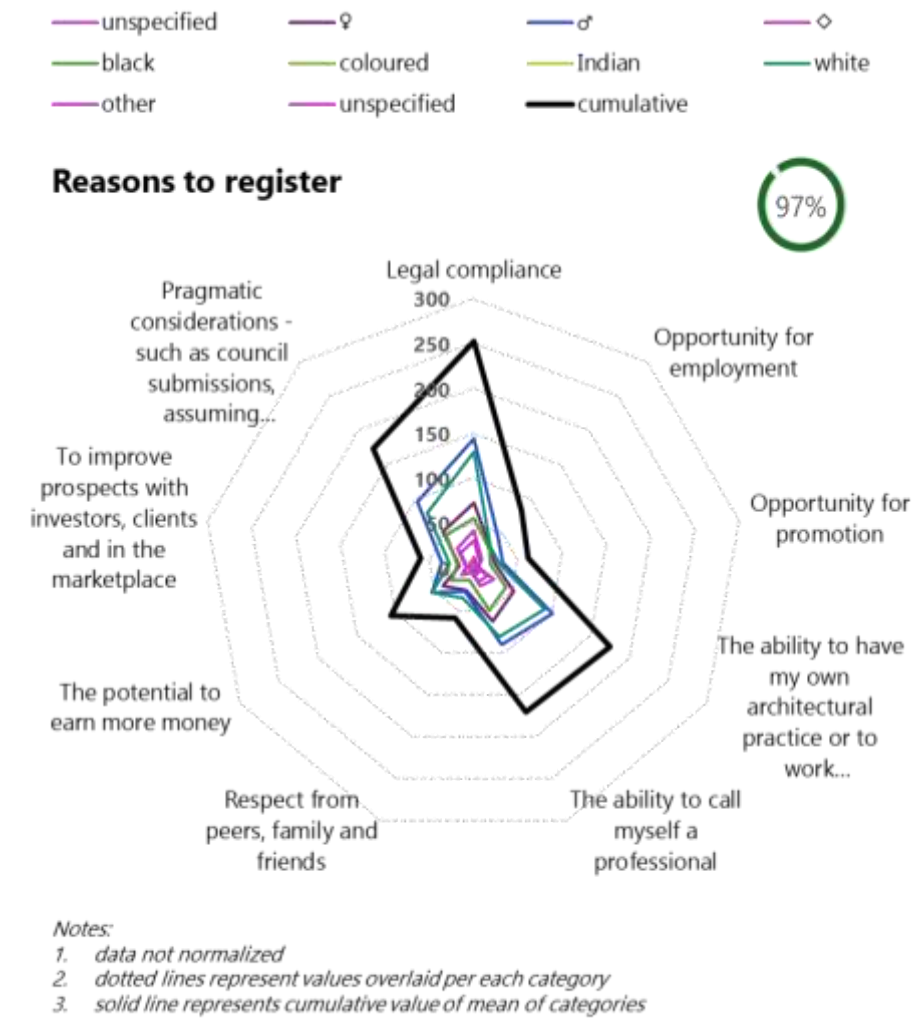
> *Attending CPD's that SACAP often advertise has helped increase my learning and understanding of things by a long way. It was during covid that I got to attend alot of online seminars that SACAP offered. These where amazing. Loved attending many of them. My knowledge grew leap and bounds*.
>
> (49-year-old)

---

[323] *3.1.1 Government regulatory and oversight bodies on page 58, and 4. A STRUCTURAL VIEW OF THE FIELD beginning on page 92*.

[324] *Meaning its administration and management, and as distinct from the RPs recorded in its database, as can be discerned by reviewing the office bearers recorded in SACAP Annual Reports, SACAP, 2010, 2011, 2012, 2013, 2014, 2015, 2016, , 2017, 2018, 2019, 2020).*

[325] *4.1 Quantitative View of the Pipeline on page 92) showed RP transformation was not aligned with the government's ambitions (1.3.2 Intensifying focus on transformation goals on page 24*.



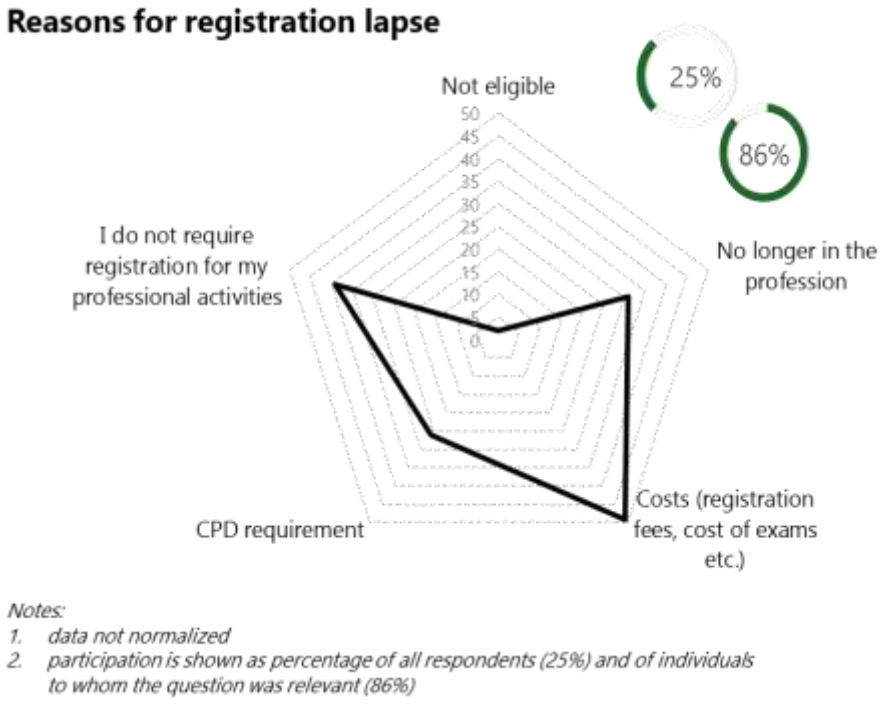


Figure 51: Reasons for registration and for registration lapse

Apart from the few positive or neutral responses, it was evident from open-ended survey responses that SACAP affiliation was frequently a reluctant purchase. As can be discerned from *Text Box 2*, a significant number of respondents (n=72) expressed disappointment, frustration, anger, resentment, and contempt about SACAP. For example, a 57-year-old black male reported: "SACAP had very little to offer me". A 41-year-old Indian male noted "I hate SACAP, they do not help the profession in any way", while another respondent declared [I] "Will be abandoning SACAP very shof law.. due to their Nazi-like control, rules and regulations". Topics of concern centred on communication and administration, costs associated with affiliation and compliance with the law, for example CPD, regulation and red tape, a lack of law and policy enforcement, poor support, inflexibility, and failure to protect or promote the profession.

The magnitude of negative sentiment registered through the survey was not anticipated. However, as evidenced by, SACAP President's 2010 Phill Mashabane's, incoming message, it was not a new sentiment~

> *In the past the attitude of registered persons towards registration with SACAP has not been a positive one. The question on the minds of professionals is what value does registration add to their career?*
>
> (SACAP, 2010:10)

Text Box 2: Survey respondents' views on SACAP

The disgruntled and alienated

1. *I refused to accept the CPOD regime post 2017, fell behind, refused to fight a scurrulous claim against me and haven't paid the fees for two years. I LOATHE SACAP! (51-year-old white male)*
2. *I hate SACAP, they do not help the profession in any way. (41-year-old Indian male)*
3. *I will shortly be on a personal mission to deter folk from studying / practicing architecture in SA or from joining SACAP. I have a number of online platforms under development to this effect which will go live in due course.*
4. *I have no desire to be linked with an organisation that has no respect for anything except its own importance (69-year-old male)*
5. *Will be abandoning SACAP very shortly … due to their Nazi like control, rules and regulations.*
6. *honestly feel like I get little to no support from them. I do not see the value in it, I merely keep my registration to allow me to do my private jobs to subsidise my income.*
7. *and I will never waste money registring with them (32-year-old)*
8. *SACAP is a money hungry corrupt entity that does not care about the profession (black female)*
9. *About to tell SACAP to take a hike. (43-year-old white male)*
10. *SACAP had very little to offer me (57-year-old black male)*

Communication and administration

11. *paid fees but routinely lost, misplaced by SACAP so likely lapsed now (40-year-old white male)*
12. *One of the reasons I let my SACAP membership lapse is because I couldn't prove I had done enough CPD, even though my CPD points were sufficient/ in line with the RIBA requirements. (42-year-old)*
13. *The previous SACAP director ignored my written letters and shouted over the phone when I asked that RPL should be a standard operating procedure for all SACAP applicants that have either no specific architectural degree or have been out of learning for some period. After this insight into the governing body I immediately unregistered. (48-year-old male)*

14. *Poor communication and lack of support from SACAP with regards to registration pathways, particularly for woman candidates who are juggling work and family commitments (ie. maternity leave, reduced working hours).*
15. *I have since applied and paid the fee, but SACAP has not registered me as yet. This is frustrating as I am busy with projects, but I cannot note them in my logbook. (44-year-old black male)*
16. *I have tried numerous times to contact SACAP to bring my registration up to date. I live and work overseas and prior to COVID there was no online cpd to keep my registration current. Despite numerous emails they never got back to me (38-year-old white female)*

Costs

17. *SACAP needs to be aware not everyone can afford to pay these high annual fees, architects don't have a pension fund, retirement fund nothing... but pay fees to be members. More must be done*
18. *Offer realistic SACAP prescribed Fees. Offer discounts and communication with Arch Program Developers, to develop the profession rather than charge it.*
19. *I refuse to pay ove 15 percent of a month's slaary to an organization which does almost nothing for me aside from sending too many emails*
20. *need money to register (27-year-old white female)*
21. *Financial challenges may force me to leave the profession (52-year-old white female)*
22. *SACAP registration fees have a big influence on retaining membership.(43-year-old)*
23. *I placed my registration on pause. Otherwise they keep billing you.*
24. *SACAP cancelled my registration because I paid 2 days late because my salary cleared that day. They then wanted me to pay a full years fee to re-register and half a years fee admin fee. I our present economic stslate that was not possible*
25. *I am currently suspended for not paying my fees; due to financial circumstances and other mitigating problems*
26. *Better pay and lower SACAP fees :) (27-year-old white female)*
27. *Take it easy on the charges and fees. Take it easy on the endless requirements.*
28. *The cost of retaining professional accreditation is too high (it costs more than in the UK and that's saying something) - Also the burden of complying with the CPD requirements is too difficult. In the UK CPD is free and you don't have to have proof (like certificates) like in South Africa.*
29. *I am registered, although I cannot afford to pay my professional fees for my current financial year. And CPD events are more expensive in trying to sustain my professional registration.*
30. *Struggle to keep up with fees & CPD without help/support from my employer (36-year-old white female)*
31. *After the 2018 recession, retrenchment and covid. SACAP registration became unaffordable. (59-year-old, Indian male)*
32. *SACAP needs to reduce their fees! The first time that I left SA as a professional and later returned, I had to retrospectively pay all my membership fees for the years that I had been absent from the country. This seems like a bit of a scam and discourages me from renewing my membership with SACAP or returning to practice in SA. (60-year-old black female)*

Deregulation and reduced red tape

1. *Amendments to regulatory environment that demands the signature of architectural professionals for all building approvals, including the housing and public works facilities would go a long way to mainstream the profession. Pro-bono services of architects can be recognised as CPD credits to support this mainstreaming. Public sector architectural professionals are a necessity broadening the field of professionalism beyond private clients. (50-year-old white female)*
2. *Reduce the amount of red tape that is taking up so much of our time (77-year-old male)*

3. *From personal experience, the archi - pro's I know who have left the industry have been because of over regulation, and the difficulty of small practices to be able to keep up with ever more pernickety rule changes and requirements, so that we become less efficient and find it harder to make a reasonable income. (79-year-old white male)*
4. *I am a good example of how "not" to retain experienced older people .... RPL needs to be VERY straighforward and simple (50-year-old white male)*
5. *SACAP control has encouraged me to offer my services abroad and get paid via overseas accounts. (23-year-old white male)*

Enforcement

1. *wake the fuck up! think its too late already!!!!!!!!!!!! SACAP & kie. We need medical rates fixed like the doctors so we can keep our doors open or anyone can draw plans even a matriculant these days, but they cant be lawyers, accountants or doctors so how are we different!!!!!!!!!! (48-year-old male)*
2. *Architecture salaries are pitifully low in South Africa. The absence of a regulated minimum fee scale means the profession suffers from the negative feedback loop of bare bones service and the negative perception that casts on architects. This has been the dynamic since 1990 and has had a very negative overall impact on the profession. Fees are too low because competitors are so desperate for work they undercut fees of others to the get work.*
3. *SACAP should do a better job of regulating the profession. It shouldn't just be a body to get a title only (Pr Status), as it is now. (Black male)*
4. *Stronger governing body that protects/prevents at risk work with no compensation for stages 1-3 and a more realistic fee schedule that is based on the asset class, project complexities and amount of work to be produced to complete the project over a project value based fee (36-year-old male)*

CPD

1. *SACAP made it very hard for me as there are no formal ways of accepting international CPD points and registration (44-year-old Indian female)*
2. *Found it impossible to attend courses (80-year-old)*
3. *THE CPD SYSTEM IS NOT GOOD, I DO A VARIETY OF ACTIVITIES IN A DAY AND NEED TO SELECT ONE AND ENSURE I GET THE RIGHT NUMBER OF POINTS AFTER TWO YEARS RATHER THAN GET CREDIT FOR EACH DAY (24-year-old Indian male)*
4. *Making formalities with cpd points and Davao formalities simpler (27-year-old white female)*
5. *It is generally difficult and time consuming to maintain CPD and professional registration for architects. Access to quality CPD events and support by practices and voluntary bodies is not what it should be. (56-year-old white male)*
6. *I sincerely hope the CPD points requirement falls away for senior professionals so that I can remain a registered Architect....Hans Hallen's definition of an 'architect' in our Prof Prac final year.....'An Architect is a person registered with the Architects Professional Council' (white male)*

Protection and promotion of the profession

1. *Protect the profession through legal requirements of education and relevant experience in the field. (49-year-old white female)*
2. *stick to the fee scales as promulgated to keep professionals in the industry as well paid individuals (56-year-old white male)*
3. *Professional bodies should do more to change the public perceptions in South Africa of architectural professionals and to value the role of experience in our profession, regardless of age. (59-year-old white male)*
4. *The profession should not take itself too seriously, but it should also not be watered down as is the status quo in my opinion. SACAP seems to be in the process, but should do even more to educate the public on the importance and relevance of architectural professionals. (34-year-old white female)*

5. *SACAP must do more to informatively teach the Nation about the Profession Eradicate Inequality and Ethnic Segregation within the Profession. (26-year-old black male)*

Support and flexibility

1. *More attention should be given to assisting candidate to transition into fully registered members with SACAP. The pass rates should be published and reflect if preparatory training benefited those that passed and from which voluntarily association. 37-year-old white female)*
2. *To retain women: SACAP to consider enabling women to take a break from registration and/or to extend candidate programme for women working reduced hours owing to family commitments. Also consider providing mentoring programs for women reentering the profession after a career break. (48-year-old white female)*
3. *SACAP is not recognized by a lot of board internationally so there is no benefit to me (33-year-old white female)*
4. *SACAP policies do not encourage advancement as Companies are not willing to help workers advance due to time off work and costs. (61-year-old white male)*
5. *Retired professional architects should retain their professional status /registration and they should not be sidelined by so-called Technicians who simply attend repetitive CPD courses presented by non- professional Architects! (73-year-old white male)*
6. *I am retired and would like to close this chapter of my life. I have a lot to offer and called SACAP to make me an honorary member but they refused. (69-year-old Indian male)*
7. *I have yet to pass the professional exam, however it is demanding to set aside time to study and the industry isn't supportive and instead exploits candidates by offering 'preparatory training' which is not rigorous enough. (50-year-old white male)*
8. *As someone who studied Interior Architecture, I was only eligible to register as a daughtsperson (Someone who has not studied a day in their lives). I pursued this but eventually abandoned this as it is completely not worth it. (50-year-old white female)*
9. *making thing more accessible, including studying part time. SACAP needs to do way more for the professionals and stop just chasing money. Listen to professionals concerns, lower yearly fees, create better opportunities, and have more action and less talk. (56-year-old coloured male)*

Eight per cent of the respondents (n=38) noted that nothing happened when their registration status changed. See *Figure 52*. For many, it was a significant milestone. One 36-year-old black respondent observed that "Professional registration is a requirement by most employers. It can be the difference between getting a job and not getting it". For a 69-year-old male, it marked an important inflection point: "I became master of my own fortune, and actually started to do meaningful work". For one 76-year-old male, it was his "best decision ever". Almost a quarter (n=103) of the respondents reported opening their own practice after registration.

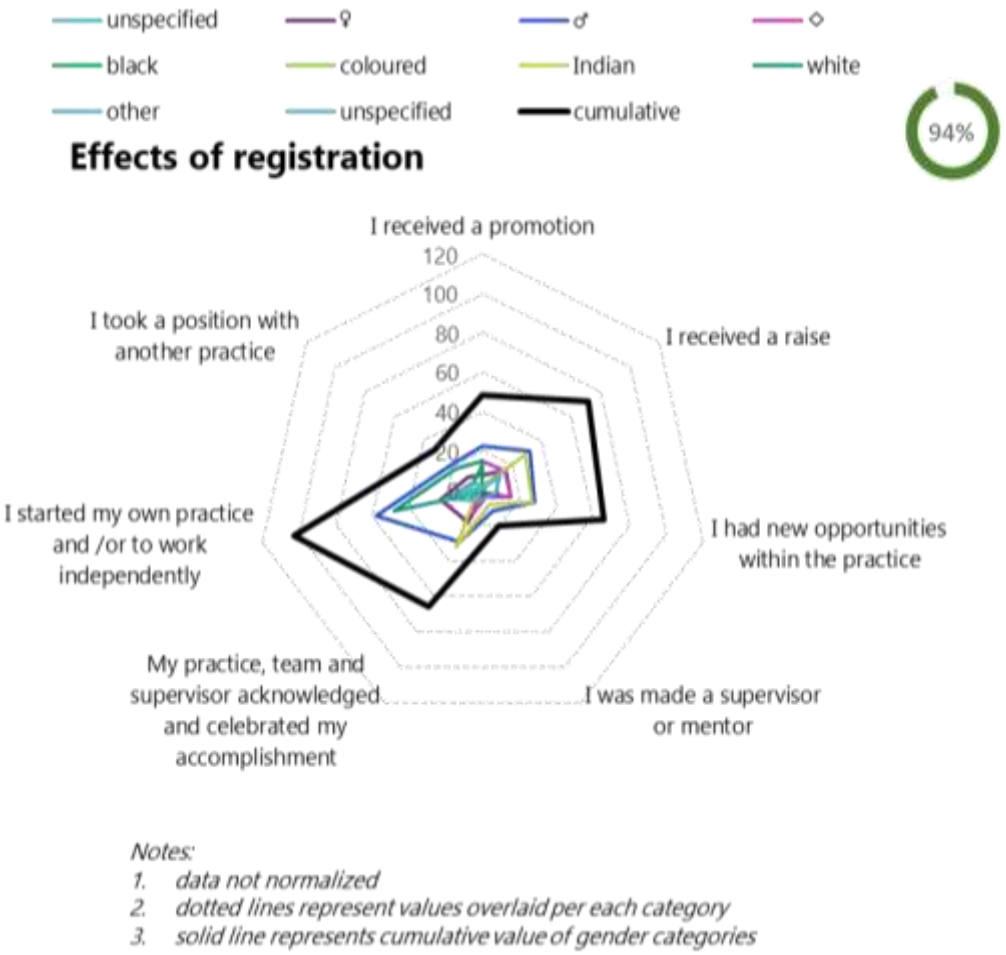


Figure 52: Effects of registration

VAs

The role of VAs was discussed in the preceding sections of this thesis.[326] Although 98% of the survey participants answered the question about their voluntary association membership, almost half (49%) indicated that they did not belong to VAs. The most prevalent membership indicated (17%) was to SAIA. Text responses related to reasons for not joining VAs included associated costs and a lack of perceived benefit or value. For example, one 35-year-old respondent noted: "Personally there was no point unless it is renowned for networking and client opportunities". A further reason appears to be a lack of encouragement to do so "Sinply because of extra fees. And I haven't received any encouragement to do so" (60-year-old white female). There was some negativity, for example~

> *[T]hey are a waste of time and do not add value to my life because its like an "old boy's / Girl's club" with the same old people just sitting around in circle jerking themselves off*.
> (60-year-old black architecture profession)

[326] *3.1.4 Voluntary associations on page 59, and The role of VAs and other professional membership groups on page 130*.

Survey feedback indicated that, overall VAs are perceived as being uninteresting, ineffectual, or irrelevant. From a demographic perspective, voluntary association membership tends to be older, whiter, and more male than either SACAP or the population background demographics. Notably, the levels of negativity nowhere neared those expressed regarding SACAP.

'Other' membership groups

In *Transformative change is possible*,[327] the theoretical potential value of 'other' membership groups[328] in catalysing transformative change was outlined. The survey sought to investigate 'other' professional membership groups, to see the extent to which they included the collectivist social movements, which could indicate the existence of fertile spaces for creativity, experimentation, and institutional muster to challenge and disrupt the establishment and signal cultural transformation. Alternate membership groups could also serve non-revolutionary ends, for example. To serve technical, or developmental ends (such as hospital engineering, green building), or to foster continuity with the past (heritage).

Only 11% (n=48) of respondents indicated that they were members of 'other' professional interest groups. As set out in *Figure 53,* the most common membership was to technical or specialised, green-building-related, heritage-related, or special interest groups for gender, gender identity or race. The presence of green-building-related groups among the respondents indicates that sustainability and environmentally conscious design have traction within the APs community in South Africa, aligning with global trends. However, the rareness of reported membership (n=7) lends credence to a concern articulated by some respondents who perceive that APs are not appropriately cognisant of or engaged in environmental or ecological issues. Regarding heritage-related membership (n=4), the groups' foci appeared initially aligned with colonial, union, and apartheid-era interests and culture, rather than, for example, indigenous vernacular interests. This orientation might affront epistemological justice and amount to symbolic violence among some APs, even if it is masked and not presented as such.[329] Disclosed respondents belonging to heritage groups were exclusively white. If the tentative proposition that these heritage societies exert a form of symbolic violence is accepted, then the lack of black^ membership could plausibly be read as an instance of rejection of this symbolic violence.

The inclusion of special interest groups related to gender, gender identity, and race (n=11) indicated some mobilisation within the architectural community to promote the interests of its membership in challenging systemic biases in the field. The low membership rates to any particular group or alternative professional membership groups in general could imply that APs chose to avoid active engagement with architectural discourse, especially confrontational discourse or may have preferred traditional avenues of professional engagement, such as VAs. They do not necessarily indicate a lack of interest in the potential for transformative change.

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[327] *See page 32.*

[328] *Defined in the negative in the survey, as an unnamed professional membership group, where named membership groups were defined as SACAP recognised VAs – as set out in Appendix C – professional interest groups.*

[329] *See Section 8.3.4 Surfacing of epistemological unconscious?on page 251 for further discussion.*

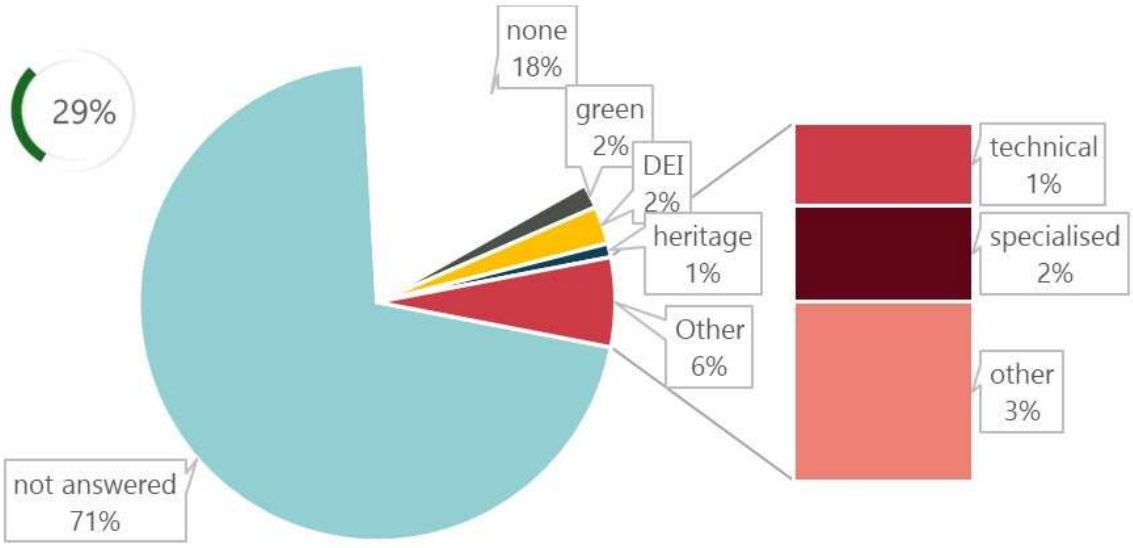


Figure 53: Survey respondents' other professional memberships

5.3.3 Workplace and habitus

Finding places

Challenges to graduate unemployment and its implications are discussed elsewhere in this thesis.[330] Most of the survey respondents indicated that they were able to find employment (n=350) or start their own practice (n=8). Considering those who indicated that they are currently studying, this implies a survey respondent graduate absorption into the workplace of 97%.[331] A few of the respondents indicated that they were retrenched (n=3), were unable to find work (n=8) or were discouraged to the point of leaving (n=2). According to one of the discouraged respondents~

> *After graduating with my bachelor's, I looked for an intern job (as everyone in architecture does before the continue to study) and it's been 3 years and I couldn't find a job and I've sent out more than 200 CVs/Portfolios*.

Survey respondents indicated a multiplicity of tactics to secure initial employment or work, with the majority having work lined up upon graduation, or finding a place within three months of searching, as shown in *Figure 54*.

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[330] *See 4.5.2 A spectre of unemployment on page 134*.

[331] *Given the official background national unemployment rate has fluctuated between 19% and 33% between 2003 and 2023 (Statista, 2024), and graduate unemployment is rising, this could mean that architecture graduates are very well absorbed or that the survey effectively misses the unabsorbed population*.

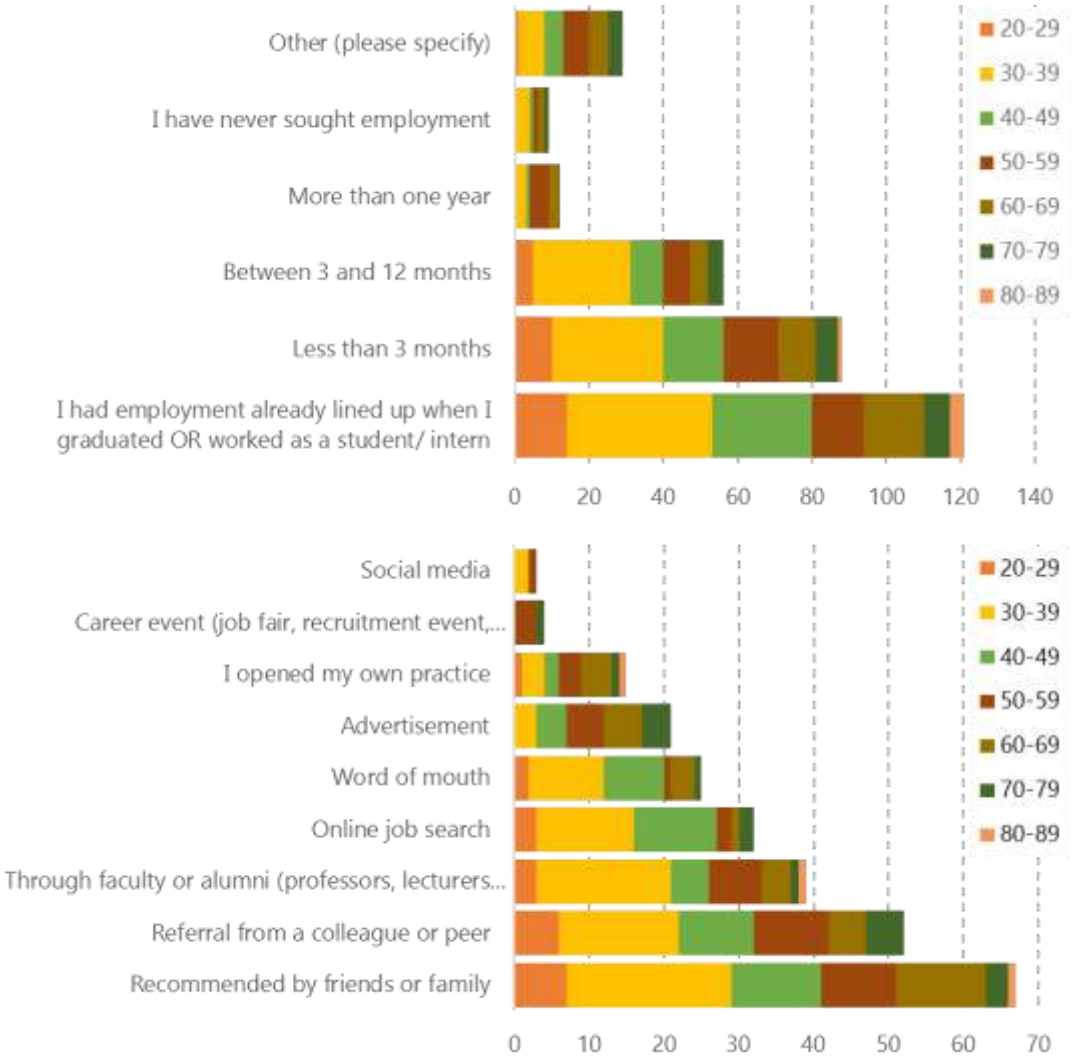


Figure 54: Tactics and timelines to first employment by age cohort (not normalised)

Mentorship

Mentorship serves as a powerful determinant of habitus, vulnerable to reproduction and entrenchment of existing power structures and inequalities.[332] 149 of the respondents indicated that they currently are mentors, 112 that they currently have mentors and 78 that they have never had a mentor. The open-ended survey responses *Text Box 3* convey a full range of sentiments on the topic, with a few describing life-long relationships and strong bonds. Several individuals (mainly more elderly white respondents) indicated that the system was not in place when they entered the profession. A 36-year-old respondent remarked that an "employer is not necessarily a mentor". This truism is poignant: as mentorship has become structurally embedded as a prerequisite for professional progression, the roles of employer and mentor have tended to conflate.[333]

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[332] *See 0 1 → 2 – graduate to candidate on page 123.*

[333] *By virtue of their proximity to graduates, employers and fellow employees are oftentimes naturally well placed to be mentors. Given that many practices are tiny or small there may be little latitude to assign this responsibility to individuals interested or skilled to mentor newcomers.*

Text Box 3: Respondents' views on mentorship

Negative

1. *My current mentor is unusual. I have not had many, and most of them are really weak. They were either disengaged or too busy or really bad leaders. (55-year-old white male)*
2. *I get the sense that my mentor felt threatened by me and so i could not voice my opinions (or even provable FACTS) without risk of being shut down. Hence I left as soon as i could because the mentor had an "old school" mentality and would not actively try and learn new things or implement new ideas (with only 1 exception) (39-year-old male)*
3. *The mentors are not always looking our for you, but mostly the project. (38-year-old white female)*
4. *Many employees in the public sector have given up hope and the need to try for a better change. This sadly has a negative impact on mentorship. (30-year-old)*

Neutral

1. *In my youth mentorship was less formal, but the work environment itself was a superb school, offering ample opportunities to grasp, with less spoon-feeding. (60-year-old)*
2. *my mentor is well advanced in the architectural profession, but not in linear practice, and also does not have a PR number (33-year-old black female)*
3. *TOUGH LOVE IS NEEDED BUT NOT OFTEN WELCOMED BY MENTEES (24-year-old Indian male)*
4. *I did not need a mentor when I entered the profession. I had prepared myself to hit the ground running. (66-year-old black male)*

Positive

1. *Long-term and hugely valuable. It's been 29 years (white)*
2. *I was fortunate to have been mentored by a seasoned professional. We hardly agreed :) but as long as I was willing to do the work, to prove and execute the work within due process, he was happy to support and even cheer from time to time.*
3. *My current SACAP mentor is a Professional Engineer who was granted PSAT status from architectural work that I did in his name during our collaboration prior to SACAP. My current paid work is done in his practice name. (79-year-old white male)*
4. *My best mentor was a self taught "draughtsman". But he was one of the top "architects" i have worked with. Practical designer. Fancourt in George is his design. He gave me confidence to play the role which I earlier described - stages 3-6 as architect. (66-year-old)*
5. *I had great mentors when I started 40 years sgo (62 -year-old white female)*
6. *It was 28 years ago, when the profession was still very ethics driven (57-year-old white male)*
7. *Their mentorship varied from setting an example of integrity and design expertise, and interpersonal communication, to direct oversight from a distance after handing over full control of projects, and in some cases direct tuition about project administration. Also sage advice about handling tricky personalities. I have been elected to give the main Memorial addresses on several occasions.ir . (54-year-old back male)*
8. *Though our careers are driven individually, the contribution of someone who "takes you under their wing" or encourage and / or expose one to opportunities for your progression, who advocates for you personally, enables expontential momentum to one's career path. (51-year-old white female)*

Mentoring requires investment of considerable time. Under stress conditions the implied obligation may even discourage potential employees from engaging young graduates.

9. *I've mentored five candidates who are now registered Professionals. Till this day we keep a very good relationship (44-year-old black male)*
10. *They listen and have the good eye of things (42-year-old black male)*
11. *My mentor had an academic background. I was extremely lucky. I try to treat my mentees in the same way that I was treated: as an adult with a valid opinion, and as an emerging professional. (37-year-old white male)*
12. *Very tech savvy and understanding (36-year-old)*
13. *Professionalism & knowledge above my own current standing (36-year-old white female)*
14. *I have had a few mentors at different stages of my career and they have been supportive and instrumental in ensuring I reach my career goals no matter the circumstances I'm facing at the time. (35-year-old black female)*
15. *I have had two excellent professional mentors, who have been ground breaking female architects. They have always pushed me to keep going and keep challenging. I am really lucky. (33-year-old white female)*
16. *Mutual respect, Foresight (32-year-old Indian male)*
17. *Always filling to assist and keep me up to date with the running of projects (in office and on site) and clients. (32-year-old white female)*
18. *Through my mentorship we continue working together and have become great friends (29-year-old)*
19. *my mentor was most supportive - very honest too about the spaces in which he was unable to offer support, and instead offered the space in which to seek it elsewhere. (28-year-old black female)*
20. *I have been privileged to work with brilliant architects, who are simultaneously wonderful people (27-year-old)*
21. *I am incredibly impressed and motivated by my professional mentor. Their dedication, decorum and personality is immersed in the structured way of engaging with all tasks at hand regarding the current projects they are working on. They have a firm voice, especially as a woman in the field and are up to scope with all the considerations of the programme at hand.*

Mentorship's transition from something voluntary, emergent, and organic to a formal obligation may have had unintended consequences. One respondent suggested that to retain professionals~

> *I believe mentorship should be taken more seriously (especially by the mentors) and not only see it as a tick box exercise in the MTRs process. It should continue throughout professional life (but not as a regulated insitution). I believe the free-will choice to mentor and be mentored will make for better future architectural professionals*.
>
> (37-year-old black male)

On Likert-style questions (shown in *Figure 55*) respondents indicate strong agreement that mentors provide good support to get necessary skills and experience, encourage formal professional development, treated mentees with respect and provide an environment in which contrary views can be expressed (shown in *Figure 56*). However, three individuals cite mentors (or an inability to find one) as their reason for allowing their registration to lapse. Moreover, participation rates dropped to 67% on the mentorship-related questions, even after adjusting for the respondents who reported never having had a mentor. Considering that it is compulsory now, and the asymmetrical power relations involved, this level of abstention may not be benign.

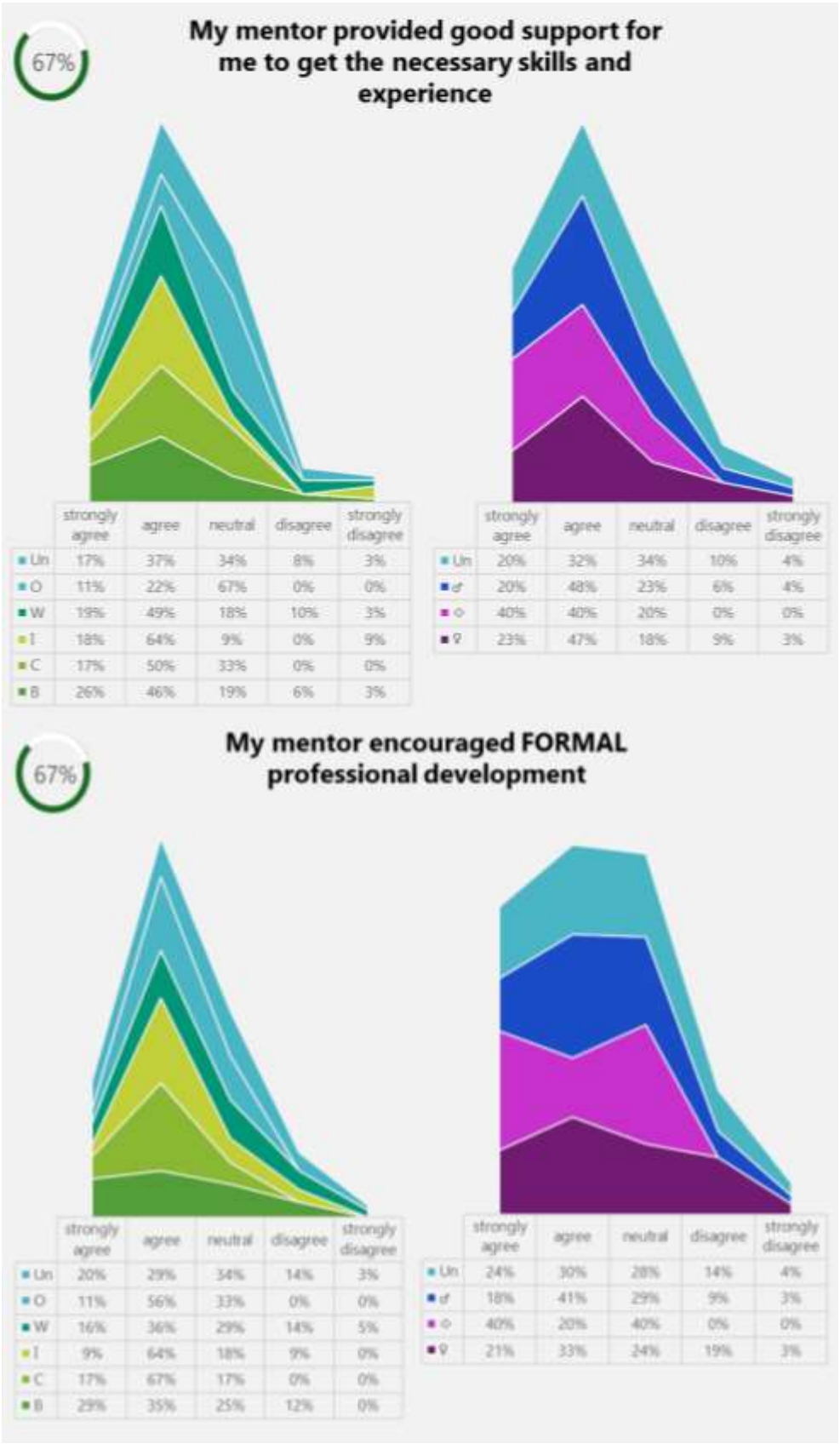


Figure 55: Mentors' support and encouragement

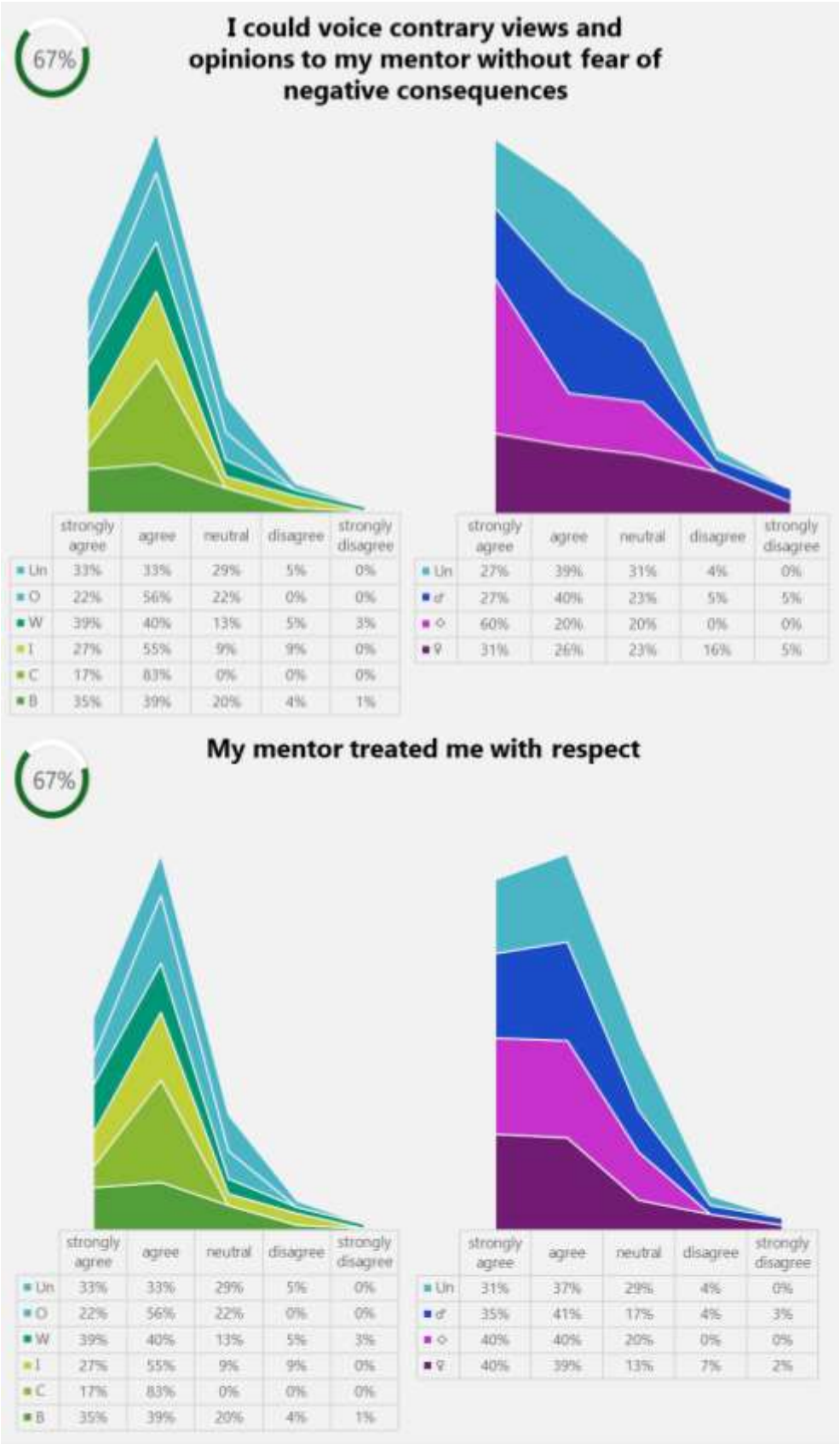


Figure 56: Mentors, respect and disagreement

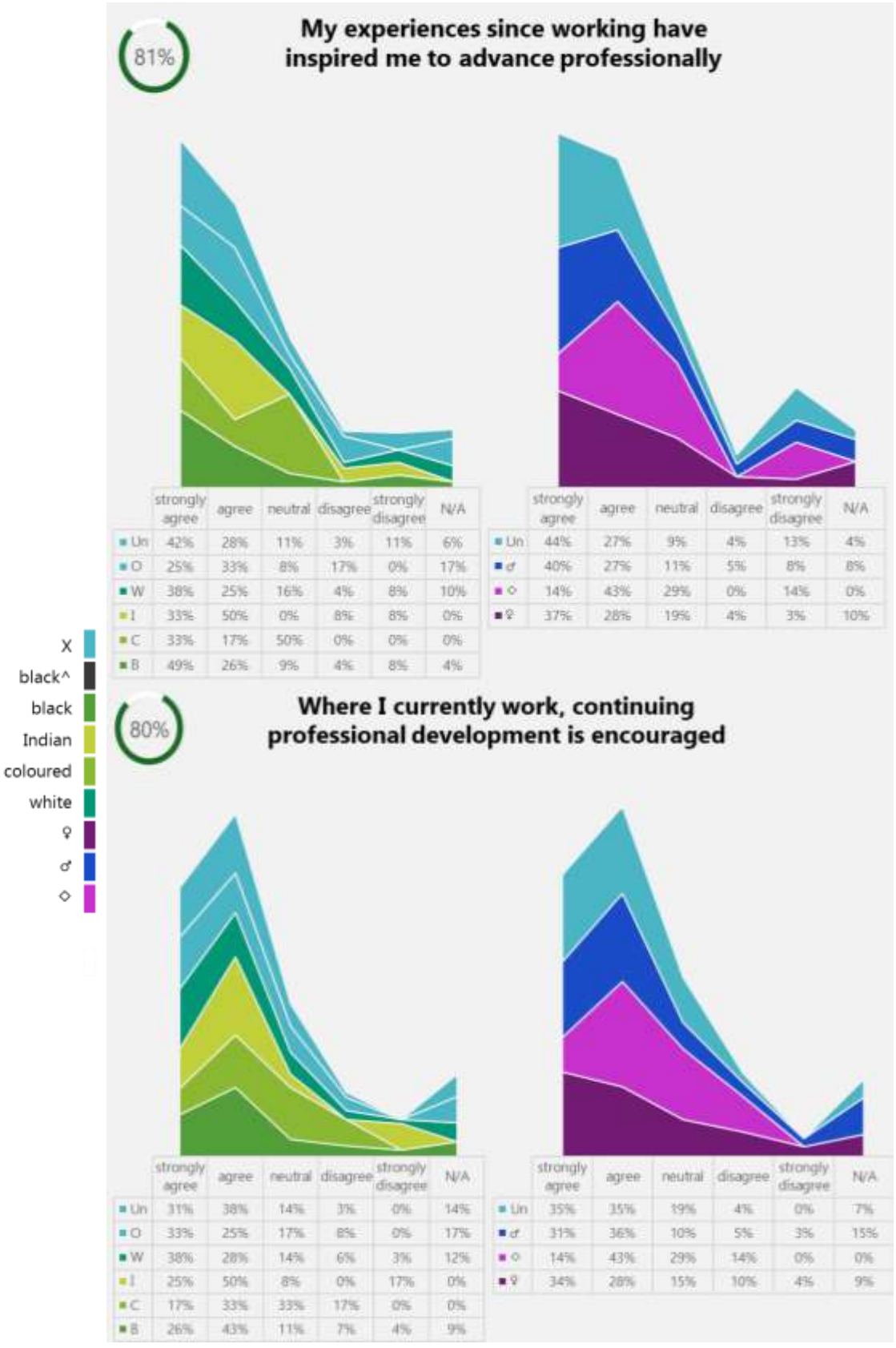


Figure 57: Advancement in the workplace

Workplace culture and progression

As shown in *Figure 57* survey respondents generally indicated that their current workplace encouraged professional development. This was less prevalent among white respondents, with muted strong agreement among women. Generally, the respondents agreed that professional registration was encouraged and that their early workplaces exposed them to a variety of opportunities that helped them gain the requisite experiences to develop professionally. Notwithstanding this encouragement, some respondents also reported that they were required to submit leave to attend classes and to write PPEs. *Table 13* shows the intentions of the respondents regarding PPEs. About 13% of respondents indicated no intention to write them, with a similar percentage in preparation for them.

Table 13: Respondents' PPEs intentions

No plans to write PPEs	56	13%
Yes - passed all requirements	223	52%
Currently preparing for the PPEs	54	13%
Yes - and did not succeed	4	1%

Figure 58 reflects the overall barriers encountered. Nearly a third (32%) reported encountering no barriers to completing PPEs. Time and support were cited as impediments for 26% and 16% of respondents, respectively. Motivation was a challenge for 15% of respondents. Materials and costs were cited as relatively uncommon barriers, each at nine per cent. This finding is at odds with reports which found materials a major barrier to licensure in the USA (NCARB & NOMA, 2021[b]:6-9), and places SACAP's contention that SAIA's PPE Study Aid is expensive in context (SACAP, 2022[a]:5).[334]

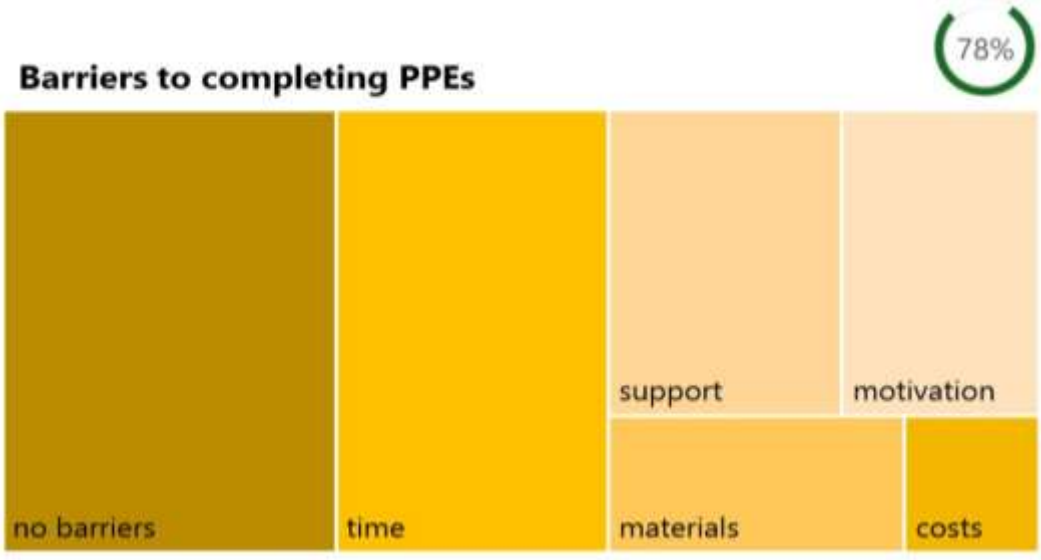


Figure 58: Tree-map indicating overall proportionality of experiences of barriers to completing PPEs

[334] *The SAIA Study Aid cost R 632 in January 2024, whereas the examination fees were R 2,767.*

As visualised in *Figure* 59, no barriers were encountered to PPEs, according to about a third of all the respondents. The highest reported barriers were from coloured APs and respondents who identified their race or gender as 'other'.[335] Time and costs were the most common barriers identified and applied across all gender and race categories. The survey responses to perceived barriers were remarkable about examination results since they do not provide good insight into why PPEs were attempted less often by female and black^ candidates (relative to their presence as candidates) and lent sparse insight into performance variations.[336,337]

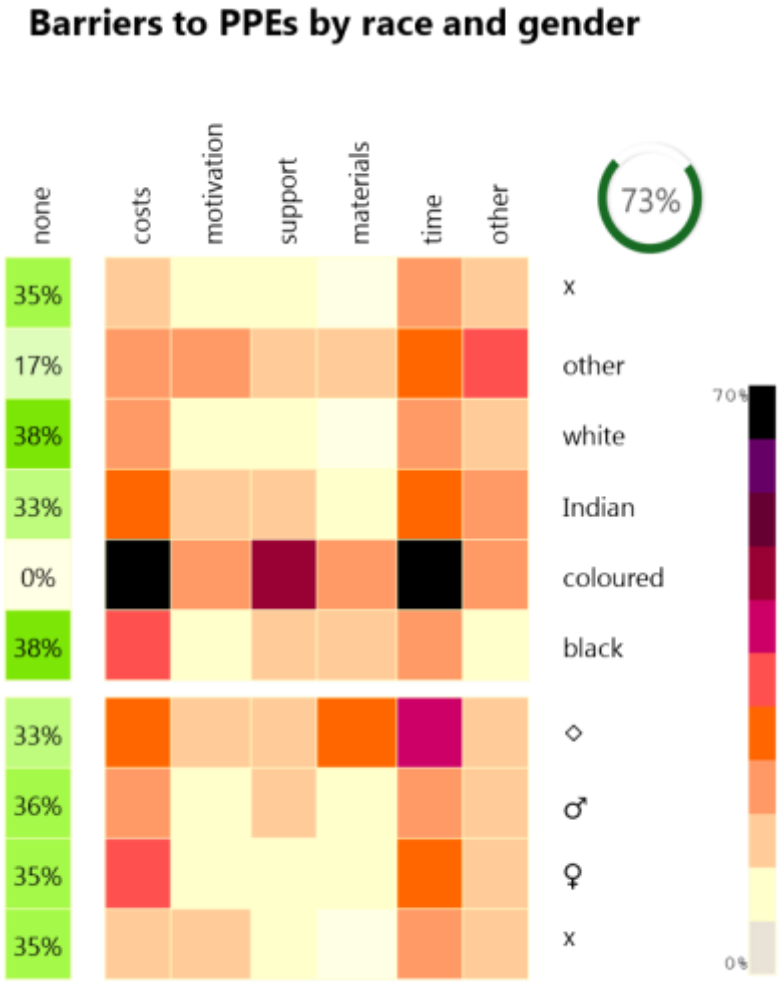


Figure 59: Heat map of experiences of barriers to completing PPEs per race and gender

[335] *The small number of overall participants in the study in these categories implies that these statistics should be interpreted with caution.*

[336] *It is probable that the survey did not adequately reach those who unsuccessfully attempted the PPEs and were subsequently discouraged.*

[337] *Discussed in 2 → 3 – candidate to professional on page 125.*

Recognition of prior learning pathways was discussed earlier.[338] Of the 430 respondents, less than four per cent (n=16) indicated that they had gained admission or progressed via the RPL route, significantly exceeding the proportion of RPL admissions estimated for the profession. While some of the RPL respondents expressed appreciation for the opportunity that the pathway provided, a deep passion for architecture, and a commitment to overcoming challenges, others found it unnecessary, time-consuming, or costly. Many of these respondents expressed frustration with the processes and requirements. Issues raised in the survey, such as the high cost of application, bureaucratic hurdles, and the need to comply with standards and regulations, provide an alternate perspective on that gained through key informant discussion, which placed systemic barriers and candidate under-preparedness at the core of RPLs challenges in developing momentum (). Several respondents emphasised the importance of perseverance and adaptability. Since respondents cited a range of diverse reasons for choosing the RPL path,[339] it seems likely to contribute to a richness of diversity in the profession.

Emergent age dynamics

Age emerged as an unexpected and important variable in the survey. It emerged as a major point of alienation related to feeling marginalised and exploited both for being 'too young' (and lacking experience) and for being 'too old' (attended by an anticipation of enhanced status or better compensation, per doxa). For example, when asked what surprised them most about the real world/practice environment, a 39-year-old black male respondent stated: “The extortion of skilled upcoming Architects by older ones - and finding out this is the same in most African Countries”. A respondent observed that~

> *In South Africa and some UK practices young staff are not properly compensated. I was poorly paid as a young professional, which forced me to open my own practice… Young architects should be nurtured. The professional lifestyle and commitment needs are difficult for Millennials and Gen-Zs.*
>
> (56-year-old white male)

The irony of generational exploitation was not lost on one respondent who described heroically accepting marginal employment as a youth, only to find himself unable to compete with employers’ penchant for the 'cheap services' of 'hungry' candidates later in his career~

> *After 2017, I tried to re-enter the job market. I have revit skills and have a huge body of knowledge. However, none has yielded anything positive. I concluded that the trend to hire and exploit youngsters continues. I love architecture, but am disheartened. I cannot find employment and the economy means there is very little work available.*
>
> (52-year-old white male)

Sectoral differences: private vs. public

Survey respondents working in the public sector commonly commented on the ubiquity of politics: “Politics trumps professional opinion”, and “Architects in the public sector are often over-ruled by political figures. Our professional opinion feels like an additional decoration to any project and is often overlooked”.

Yet another suggested~

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[338] *See 0 → 1– enrolled student to graduate on page 121.*

[339] *For example, family influence, prior experience in related fields like civil engineering, and later-life career changes.*

> *Follow the French system, where the highest honour as Architect is to become the Architect of the city. This will allow the best and brightest to form the city guidelines, promote architecture under the general public, allow someone to leave an lasting legacy and honour those who has excelled.*

Given the government's stated ambitions of increasing infrastructure spend from four to ten per cent of GDP by 2030 (CIDB, 2023), it will be useful to understand APs' experiences in the public sector and the opportunities it presents in detail, beyond what could be discerned from the survey, and this is therefore discussed later.[340]

Diversity and homophily

Homophily was discussed *earlier*.[341] Several Likert-form questions were asked about culture in the workplace. Some shortcomings of workplace culture-related questions are noted. First, it was not determined whether the staff body at the workplace being considered was meaningfully diverse, and reported harmony could, therefore, be in the context of a homophilous practice cohort. Second, as shown earlier in *Figure 38*, most of the survey respondents are affiliated with small establishments, where a workplace culture has a substantively different meaning than for a medium or large enterprise. Therefore, in this segment (diversity and homophily), I have excluded responses to selected questions from respondents from tiny practices (two or fewer persons). The survey questions relate to current work practice as a convenient proxy for overall ARCHIculture. However, COVID-19 and ensuing national circumstances had a moderating effect on both practice and culture. Treating all colleagues fairly, irrespective of their views and backgrounds, reflects an organisation that values diversity and inclusion. Fostering a positive workplace culture, organisations can enhance employee retention and drive transformation. Sixty-eight per cent of survey respondents strongly agreed or agreed with the statement 'all colleagues fairly, irrespective of their views and backgrounds', with 19% strongly disagreeing. A significant proportion (80%) of respondents strongly agreed or agreed with the statement that 'colleagues of different backgrounds interact well within this practice or workplace', with only 10% who disagreed or strongly disagreed. The majority (88%) of the respondents reported getting on well with co-workers, with only six per cent reporting that this was not the case. See *Figure 60*. Inculcating positive relationships with coworkers could foster a sense of community and support within the workplace, making conditions conducive for individuals from diverse backgrounds to integrate into the workplace, enhancing retention and transformation. Sixty-two per cent of the respondents indicated that they felt valued in their current place of work, whilst 10% indicated that they did not. See *Figure 61*. Feeling valued is crucial for belonging, as an individual's recognition and importance within the field, reflects the development of social capital. When individuals accumulate social capital, they are more likely to stay, contributing to retention.

Encouragement to develop and advance

Professional growth and progression opportunities could promote talent development and retention within the field. Survey results indicated that continuing professional development was encouraged in the workplace except among three per cent of the respondents. Sixty-seven per cent of the respondents indicated that their working

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[340] *See The state as player on page 250*.

[341] *See 4.4.2 Discretionary social capital on page 129*.

experiences inspired them to advance professionally, although 12% disagreed or strongly disagreed with this statement. See *Figure 62*.

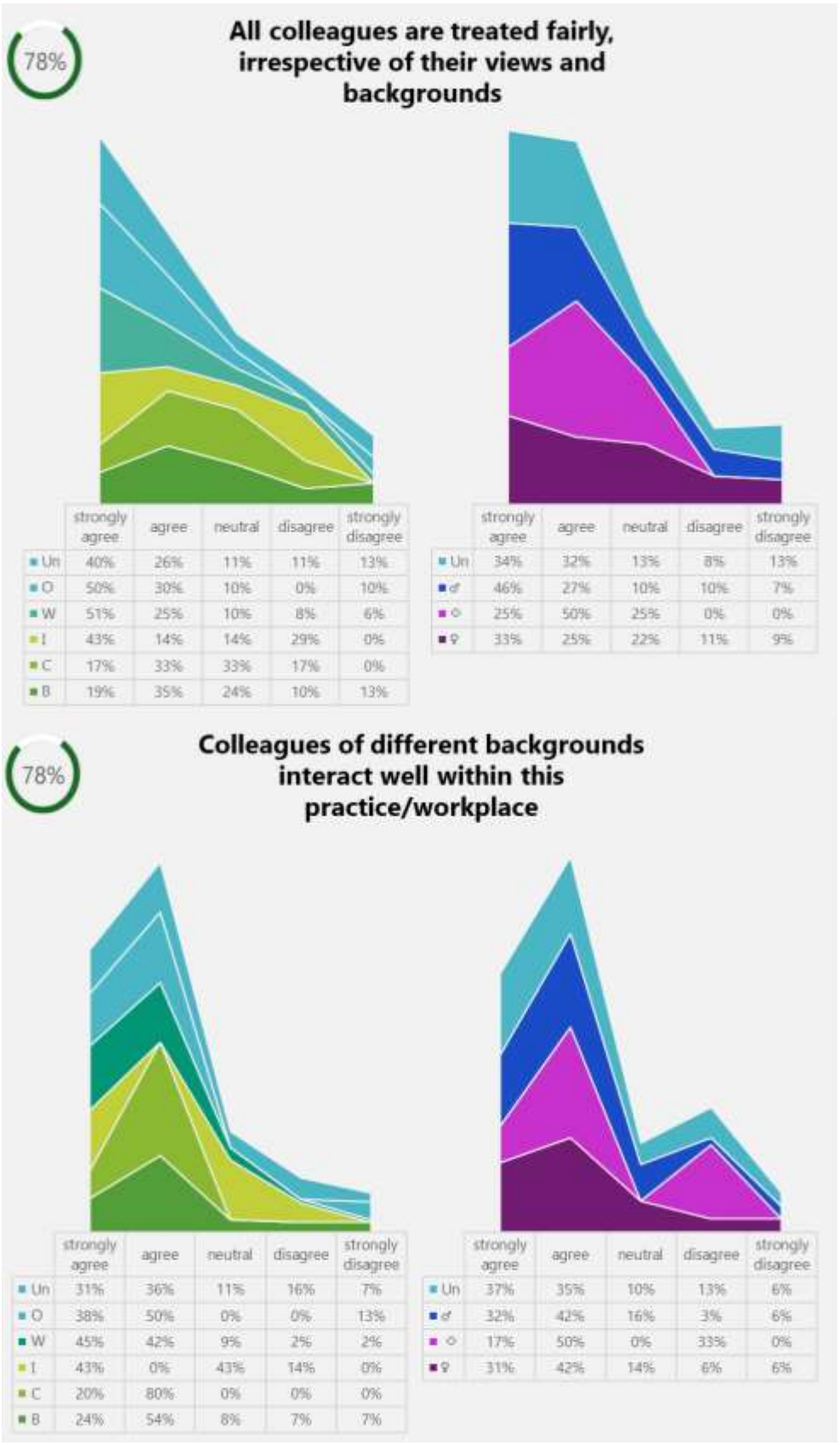


Figure 60: ARCHIculture and diversity

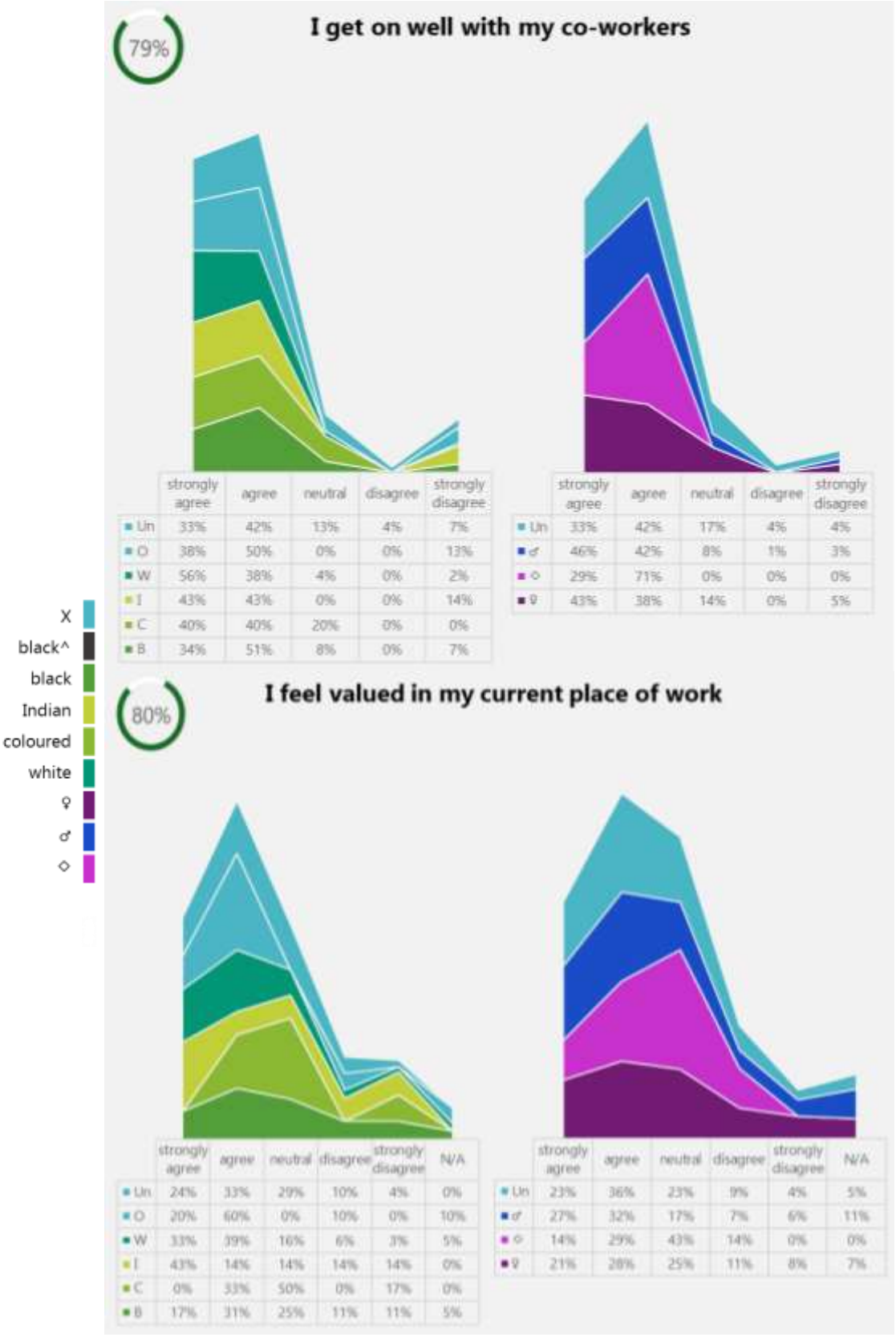
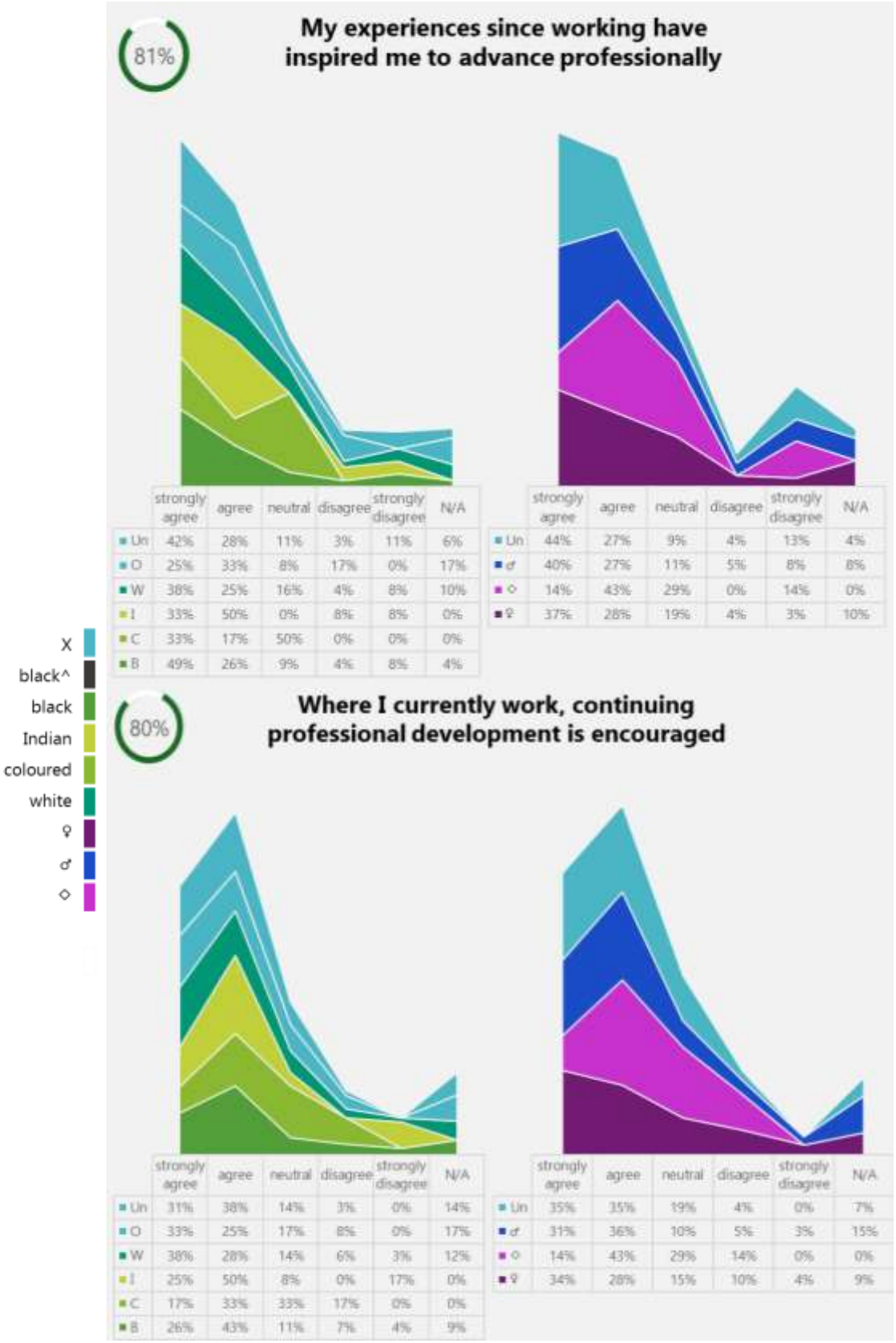


Figure 61: ARCHIculture - feeling valued and congeniality



	strongly agree	agree	neutral	disagree	strongly disagree	N/A
Un	42%	28%	11%	3%	11%	6%
O	25%	33%	8%	17%	0%	17%
W	38%	25%	16%	4%	8%	10%
I	33%	50%	0%	8%	8%	0%
C	33%	17%	50%	0%	0%	0%
B	49%	26%	9%	4%	8%	4%

	strongly agree	agree	neutral	disagree	strongly disagree	N/A
Un	44%	27%	9%	4%	13%	4%
♂	40%	27%	11%	5%	8%	8%
◇	14%	43%	29%	0%	14%	0%
♀	37%	28%	19%	4%	3%	10%

	strongly agree	agree	neutral	disagree	strongly disagree	N/A
Un	31%	38%	14%	3%	0%	14%
O	33%	25%	17%	8%	0%	17%
W	38%	28%	14%	6%	3%	12%
I	25%	50%	8%	0%	17%	0%
C	17%	33%	33%	17%	0%	0%
B	26%	43%	11%	7%	4%	9%

	strongly agree	agree	neutral	disagree	strongly disagree	N/A
Un	35%	35%	19%	4%	0%	7%
♂	31%	36%	10%	5%	3%	15%
◇	14%	43%	29%	14%	0%	0%
♀	34%	28%	15%	10%	4%	9%

Figure 62: Advancement in the workplace

5.3.4 ARCHIculture

ARCHIculture is a term coined to describe the ambient culture that instils attitudes, work habits, and values – infused as habitus - within the architectural community.[342]

Prejudice and discrimination

Exposure to prejudice or discrimination,[343] either as a perpetrator or witness, can impinge on ARCHIculture by alienating some APs, fostering attrition. One respondent's early career experience from apartheid times, described conditions which would be illegal and untenable after 1994. However, rather than resulting in his departure, it sealed his resolve~

> *I was not allowed to share the same office, ablution, lifts or any other facilities with my colleagues who were all white. On site I was thrown out by white occupants if I entered the building. When I was with colleagues on site visit and sat outside a restaurant on their rusty wire seats I was also thrown out. My workstation at my office was in an ammonia print room. I was mocked by my colleagues that it was great for not getting colds. The humiliation when on and on. My only option was to preserve in the architectural profession. My will was to out do the university graduates.*
>
> (69-year-old Indian male)

Witnessing or experiencing discrimination can also have opposing effects of alienating or fostering alliances among those with shared experiences, cultivating a sense of belonging and solidarity. This collective resilience can inspire challenges to discriminatory norms and structures within a field, promoting transformation and inclusivity.

A high proportion, 88% (n=377) of the survey respondents completed a matrix to indicate where they had personally been a victim, witness to, or beneficiary of various forms of prejudice or discrimination in the architecture professional workplace. Ten per cent of the respondents to this question (n=39) indicated that they had not experienced any of the identified forms. Nine per cent (n=35) indicated that they had not benefitted, and eight per cent (n=30) indicated they had not witnessed any prejudice or discrimination. The prevalence of these experiences is plotted on the matrixes shown in *Figure 63, Figure 64,* and *Figure 65*.

Survey respondents reported that race or ethnicity and age were the most universally felt forms of discrimination, with both of these, as well as nepotism and favouritism being most commonly witnessed. Black^ and ◇ individuals were significantly more likely to report being victims of various forms of discrimination and prejudice.

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[342] *See 4.2 Cultural Capital and Foreclosure on page 101 and ARCHIculture in Appendix A – glossary of terms.*

[343] *The terms 'prejudice' and 'discrimination', though distinct, were not separated in the survey and were not defined, so that interpretation is expected to be as understood in everyday language.*

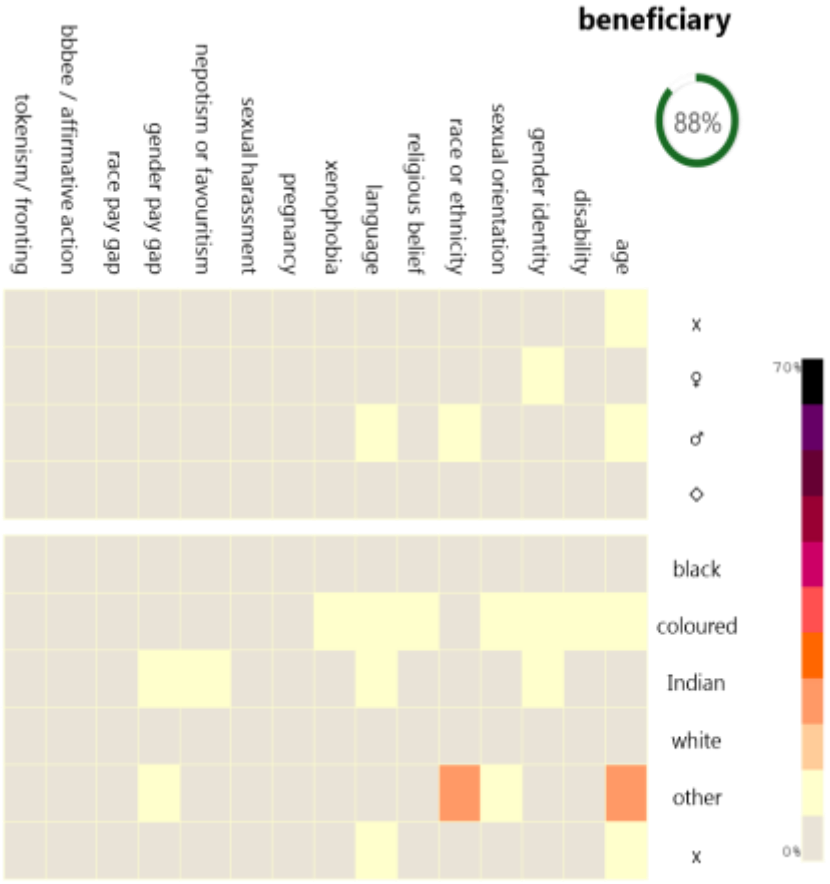


Figure 64: Beneficiaries - prejudice and discrimination per race and gender

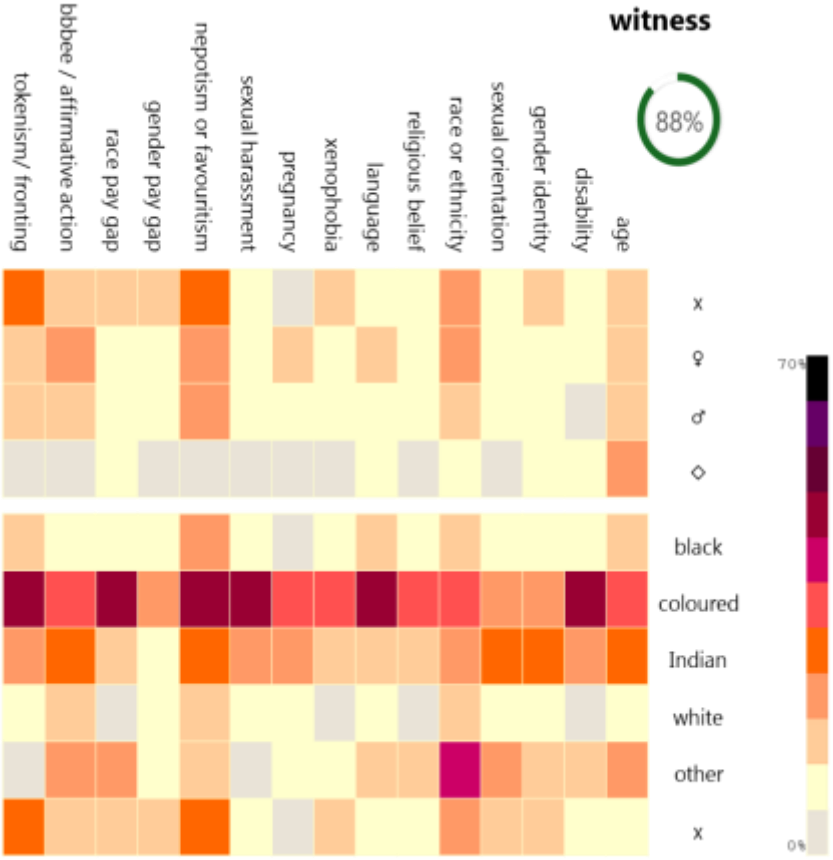


Figure 63: Witness - prejudice and discrimination per race and gender

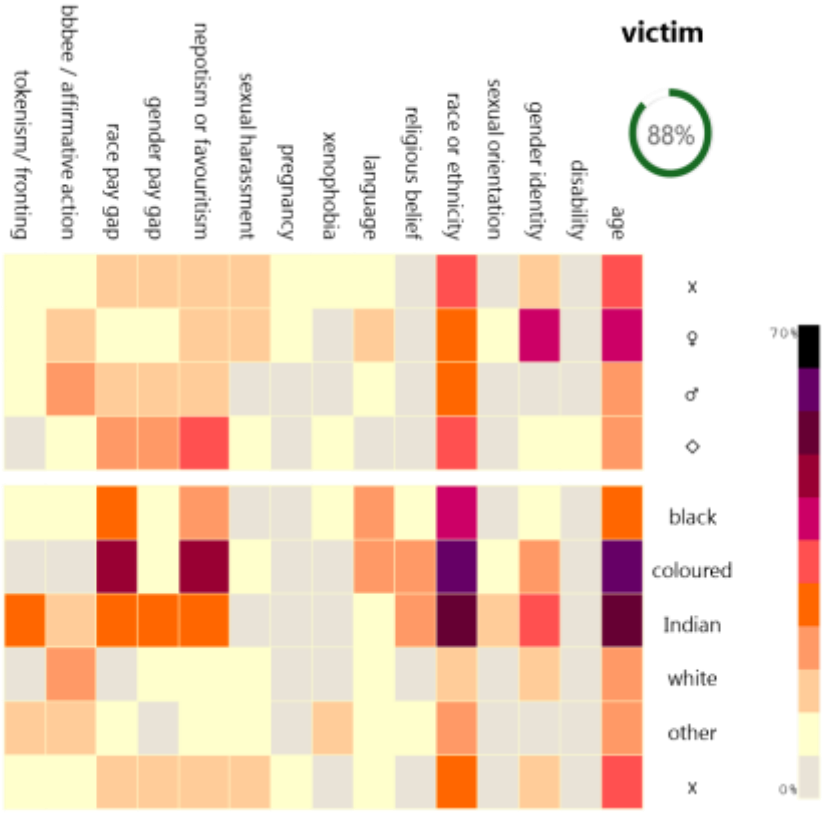


Figure 65: Victims - prejudice and discrimination per race and gender

Self-expression

The role of 'voice' as a tool of retention and transformation is discussed in earlier.[344] Survey participants were asked whether they felt reasonably secure in being able to express themselves authentically during each of the three phases of professional development. The results are represented in *Figure 66*. A high proportion, 83% of the respondents answered the question. Of these, 57% (n=244) indicated that they felt comfortable during their study phase, 37% (n=158) indicated that they felt comfortable during candidacy and 60% (n=264) indicated that they felt comfortable in practice. Almost half of the respondents who used the text comment field (n=12/26) expressed a lack of comfort during all phases, as denoted with '!'. Relevant elaborations received on constraints to self-expression are set out in *Text Box 4*.

In response to perceived oppression, individuals may feel coerced to conform to dominant norms and values within the field, even if this contradicts their illusio. Such experiences could lead to a re-evaluation of professional identity and values, leading APs to adopt a more conforming persona to gain acceptance or maintain their position within the field. Some of the open-field text responses to the self-expression question set out in *Text 4*, (such as 1, 3, and 9), support this hypothesis.

[344] *See 4.2 Cultural Capital and Foreclosure on page 101.*

Text Box 4: Authentic self-expression

1. *My practice was very religious so I opted to just stay quiet about not being religious. (27-year-old white female)*
2. *Never, That is why I left the formal profession you bunch of bigoted fools! (69-year-old male)*
3. *neither I was often reprimanded and made an example of during my studies because I chose to voice my opinions, and this has also had an impact on my work environment. I'm not blind to the fact that I may upset those with some of my opinions, but I do filter myself before I simply blurt topics or opinions. (42-year-old white male)*
4. *Architecture has a very left-leaning bias - even radical in some cases. Although I agree with most positions and I identify as liberal, I also hold some conservative positions about placemaking and design that have been derided and called old-fashioned (37-year-old white male)*
5. *None- there is a culture of victimisation within large organisations. Generally I keep my personal opinions to myself and only to respond to factual things. (37-year-old white male)*
6. *Hahahahahaha in this political climate? (50-year-old white male)*
7. *At work we felt to intimated to express ourselves (46-year-old white female)*
8. *Not within Building Control environment (36-year-old white female)*
9. *I am gay - was not open about this until about mid 1990's (40-year-old white male)*
10. *There is a tendancy to minimise black people's contributions and highlight shortcomings (52-year-old black female)*

Despite the cost, some of the respondents nevertheless expressed their views openly. A respondent noted that~

> *I felt secure to express myself, but I was persecuted in doing so. As a whistleblower my job security was lost, in exposing and pursing justice for criminal activities by an fellow employee I was physically assaulted by police. Adverse attitudes to consultants meant being deliberately excluded from information and processes necessary to undertake the contracted work.*
>
> (white female)

A minority of respondents using the comment fields noted mastery over time, as set out in *Text Box 5*.

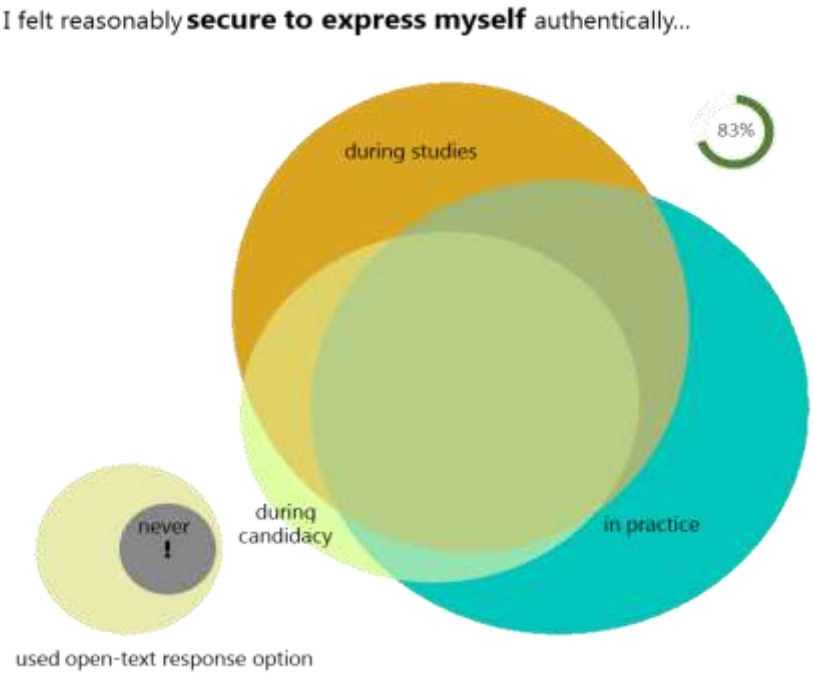


Figure 66: Perceived ease of self-expression by professional phase

Text Box 5: Personal mastery through self-expression

1. *With growing confidence in my abilities and skills, it became easier (39-year-old black male)*
2. *Becoming more knowledgeable taught me a lot about expressing personal views as they could have a positive outcome on the project (36-year-old black male)*

Overwork, exploitation and work/life balance

Although these were not directly asked in the survey, very common feedback related to work overload and exploitation during studies, candidacy, and in the professional workplace. Many professionals lamented (or proudly described) the profession's inculturation of hard work, positioning this as inevitable or heroic. Due to a long history and pervasiveness of the expectation of overtime, often uncompensated, it had become normalised, as evidenced by *Text Box 6*.

Although long hours and overwork were cited by many of the survey respondents as a workplace stressor, the average time per day *currently* allocated to work indicated that it was averaged at 8.13 hours with a standard deviation of 3.26, according to the 336 respondents to the question (79% response rate). However, the contemporaneous dearth of work (following COVID-19) may have artificially suppressed this, and the question's phrasing may have needed to be clarified.

Text Box 6: Endemic overwork and exploitation

1. *Exploitation and long hours. Band of brothers psychology, and heroism. It's part of the culture.*
2. *... The pay gap is real - especially for women. The working hours can be exploitative, the profession is not valued as it should be and employees are treated like expendable commodities. (black female)*
3. *Working overtime and working through the night was commonplace. Long hours to meet project deadline. As a single person we took this on with bravado. We were champions. No compensation for additional work. Became an associate, but there was no change in remuneration. So I left, as it had become too hectic, and I was in a serious relationship. My wife (logically) put pressure on me to leave for financial security... The exploitative trend of overtime generally continued ... (56-year-old white male)*
4. *I have never had encouragement or advice in my carrer. Employers have only been inteersted in exploiting me for every hours than can get out of me for as little renumeration as possible. (60-year-old, white, male)*
5. *Tedious. Low paid. Lack of mentoring in a career. Exploited by both employers and by clients in general. Extremely low pay. Lack of any definitive career path or career ladder. Low esteem in which architects are held in the industry. I can go on..... (39-year-old white female)*
6. *South African architecture as a career feels undervalued, overworked and underpaid from my comparative experience abroad. This may be true for the general domestic workplace, but I would not go back to the same profession should I ever return to South Africa.*
7. *By leaving the profession I see people retiring, seeking alternative ;ess stressful employment and in 2 cases - suicide ! (67-year-old white male)*
8. *I often work through the day and through the night. For example I have had approx. 4hrs sleep. Awoke at 2:00 in the morning and have been working at my desk till now, 07h50. This is absolutely not how I desire to work but the work load for architects today, push the architect to work long hours. If you can master working fast yet accurately and effectively then hats off to you, but the majority of architects I know, often work longer hours than expected and/or what their employees request of them. All architects I know, work long hours beyond what is called of them in order to meet the deadlines set out before them...(49-year-old)*

An unexpected finding of the survey data was that 34% of respondents reported having no dependants. The average number of dependants (1.5) reported seemed low, especially when compared to general household survey data, which reported that, on average, South African households consisted of 3.34 persons, with single-person households accounting for about 23% (StatsSA, 2022:8). Participation in the question was good (83%). Respondents were representative across all age cohorts. It seemed unlikely that the phenomenon arose from a misunderstanding of the question, which needed to be phrased clearly. This observation merits further investigation, as it was not evident whether this was a global phenomenon, typical of South African professionals across various disciplines, peculiar to architecture professionals, or anomalous.[345]

Notwithstanding these shortcomings, personal obligations were directly identified as a reason for leaving the profession in only two instances. It was therefore not immediately

[345] *This is discussed further in 0 Benchmarking dependants on page 251.*

apparent from the data whether there is a link between high attrition and low numbers of dependants. Moreover, there are various consequential distortions – with gender and race dimensions – which are likely to emerge in an analysis of dependants and gender.[346] One 25-year-old white female candidate "almost felt like giving up. I am in the dilemma to either choose being family oriented or career driven to achieve more in my career". A further respondent noted~

> *If i want to earn a salary which would allow me to afford to buy a house or have a child, i would need to pursue work in a larger commercial practice, or become a one man band doing estate houses. Neither of which appeal.*
>
> (32-year-old white male)

Compensation

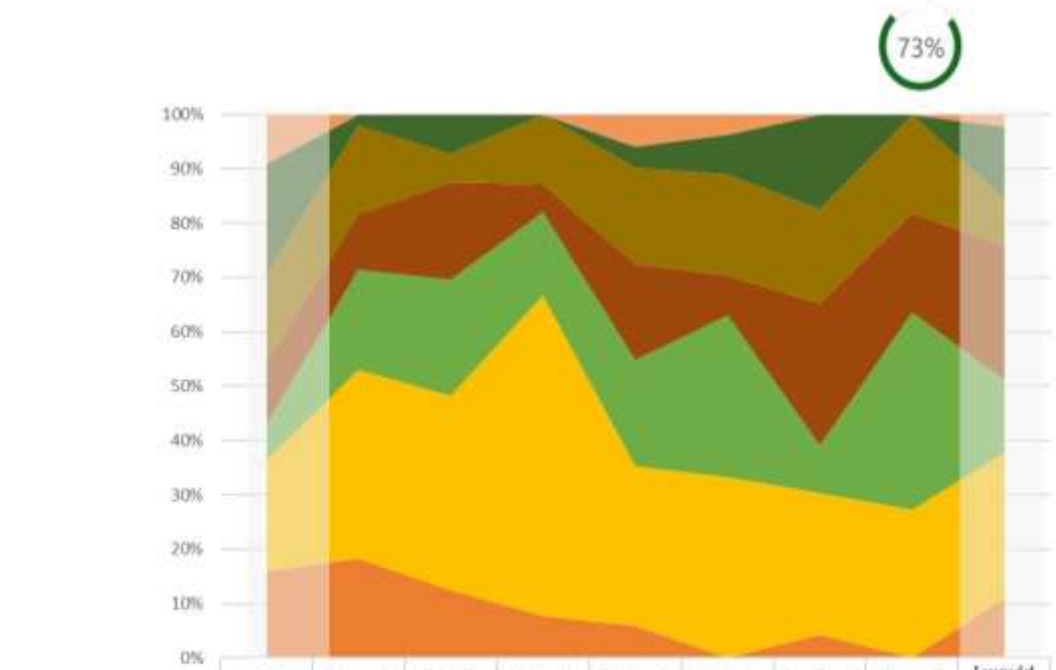
Fair compensation is germane to recognition, as it reflects an individual's ability to develop economic capital within the field. For employees, it demonstrates that the employer values their contributions and acknowledges their worth;[3] for sole practitioners, it signals worth in the marketplace. Its importance to attrition and retention was identified in the literature.[347]

Low pay was frequently cited in the survey text responses as a stressor and, in rare examples, as a direct cause of leaving. Excluding respondents who selected the option: 'prefer not to say' (n=49), 79% of respondents placed their current income in one of several ranges. A significant proportion of respondents, 73% (n=316), answered this question about gender and race identities. Income, which can come from a salary for employed individuals or clients in the case of sole practitioners, has been visualised per age and gender cohort (*Figure 67*), and per race *(Figure 68)*. These survey findings point to income disparity between genders and races and intriguing age cohort 'patterns' that warrant further analysis.

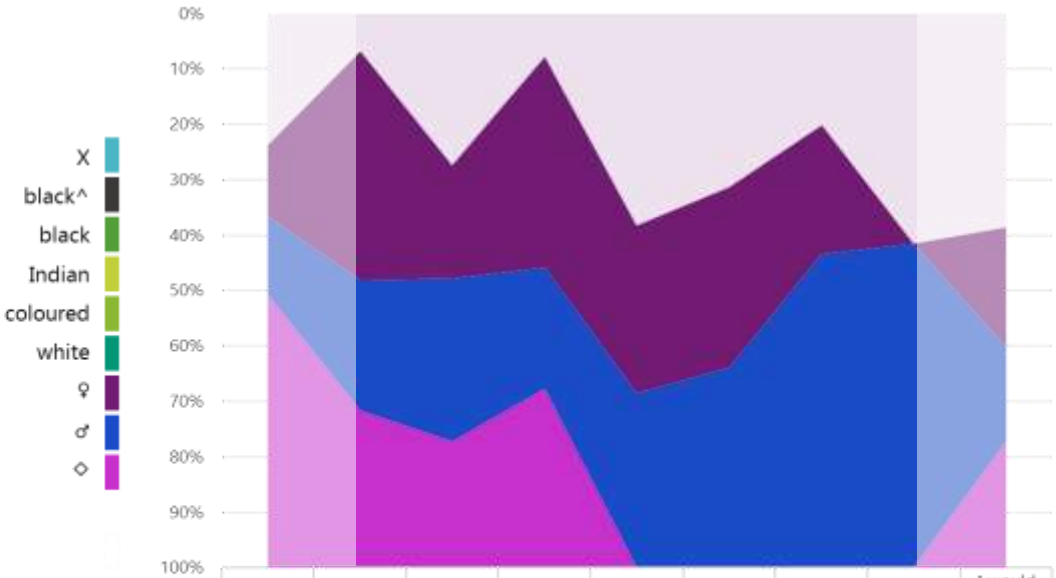
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[346] *For example, in a world where most architectural professionals do not have dependents, the 'going rate' for salaries could be suppressed, which paves the way for reduced professional fees to be charged which renders those with dependents uncompetitive and squeezes them out of two marketplaces viz. employment/job market and in securing commissions.*

[347] *As discussed at 3.3.2 Jobs vs. professions on page 72.*



	Not applicable	Below R 200 K	R 201 K - R 350 K	R 351 K - R 500K	R 501 K - R 750 K	R 751 K - R 999K	R 1 M - R 1.5 M	Above R 1.5 M	I would prefer not to say
80-89	9%	0%	0%	0%	6%	4%	0%	0%	2%
70-79	20%	2%	7%	0%	4%	7%	17%	0%	13%
60-69	16%	16%	5%	13%	18%	19%	17%	18%	9%
50-59	11%	10%	18%	5%	18%	7%	26%	18%	24%
40-49	7%	18%	21%	15%	20%	30%	9%	36%	13%
30-39	20%	35%	36%	59%	29%	33%	26%	27%	27%
20-29	16%	18%	13%	8%	6%	0%	4%	0%	11%



	Not applicable	Below R 200 K	R 201 K - R 350 K	R 351 K - R 500K	R 501 K - R 750 K	R 751 K - R 999K	R 1 M - R 1.5 M	Above R 1.5 M	I would prefer not to say
◇	43%	14%	14%	14%	0%	0%	0%	0%	14%
♂	12%	12%	19%	10%	14%	8%	10%	5%	11%
♀	11%	21%	13%	17%	14%	7%	4%	0%	14%
unspecified	21%	3%	17%	3%	17%	7%	3%	3%	24%

Figure 67: Income brackets per age cohort and gender identity



	Not applicable	Below R 200 K	R 201 K - R 350 K	R 351 K - R 500K	R 501 K - R 750 K	R 751 K - R 999K	R 1 M - R 1.5 M	Above R 1.5 M	I would prefer not to say
unspecified	18%	8%	22%	8%	10%	6%	2%	6%	18%
other	22%	11%	17%	0%	6%	11%	6%	11%	17%
white	10%	11%	13%	14%	18%	9%	10%	3%	10%
Indian	13%	19%	31%	0%	19%	6%	0%	0%	13%
coloured	14%	14%	43%	14%	14%	0%	0%	0%	0%
black	15%	24%	17%	11%	7%	5%	5%	1%	15%

Figure 68: Income brackets per race identity

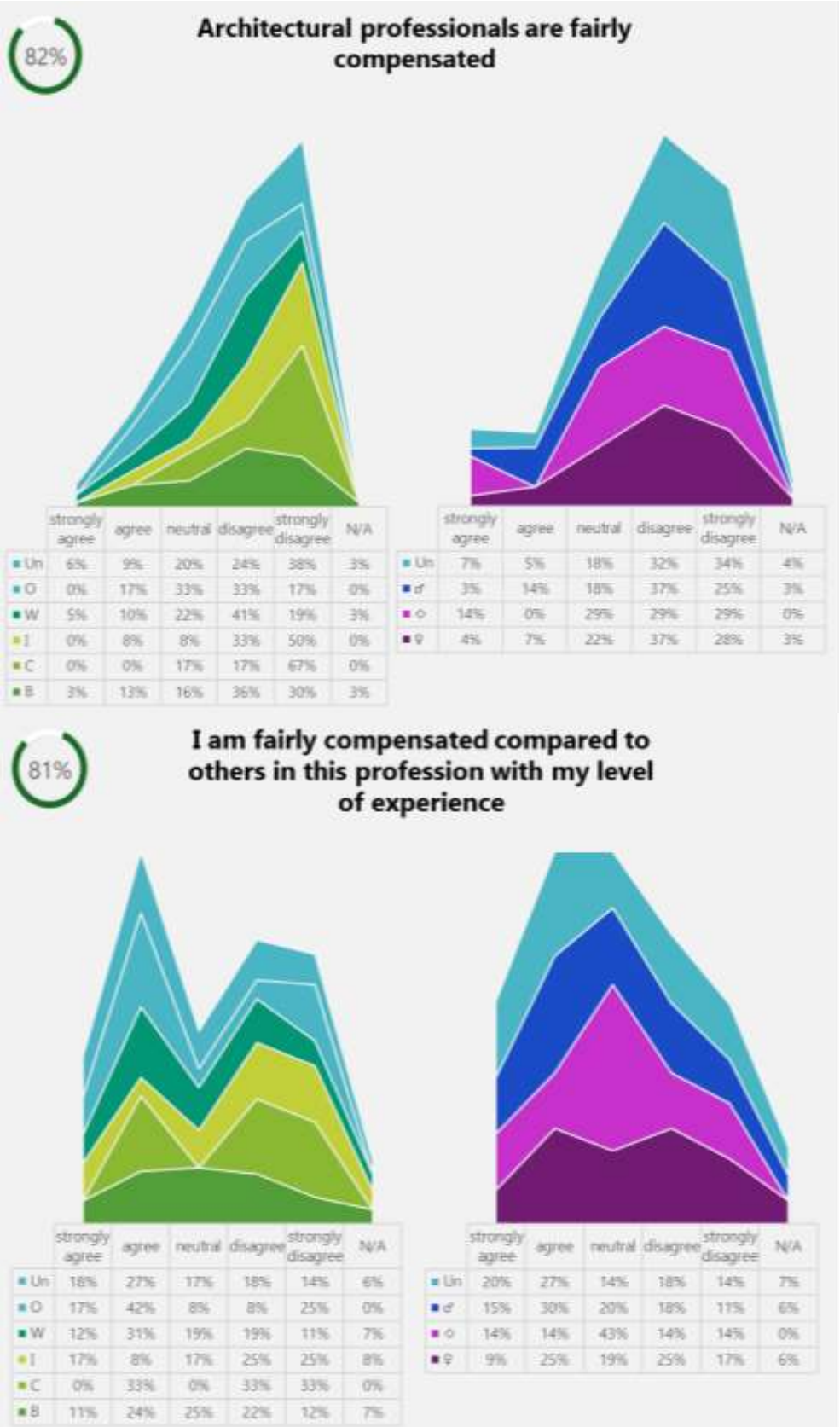
A sample of respondents questioning the professions' viability is set out in *Text Box 7*.

Text Box 7: Concerns about the field's viability

1. *stupidity(no Im serious your dedicate your life to mentoring and working 10-12hour days for very little remuneration. you struggle to keep your practice going due to cut throat system. Tenacity, and Grit you most definitely not in it for the money. no protection form institutes or SACAP. general public don't know your value at all. (46-year-old white female)*
2. *Architecture is not a viable career choice, it's only for the extremely privileged who don't need to pay bills (32-year-old)*
3. *An environment must be created by the economy where architecture will become relevant and financially viable again. (73-year-old white male)*

Figure 69 shows an interesting discrepancy in perceptions of fair compensation for oneself and the field. Some 41% of the respondents strongly agreed or agreed that they were fairly compensated compared to others in the profession with a similar level of experience. However, only 15% strongly agreed or agreed that APs-at-large were fairly compensated. There are also intriguing variations between gender- and race- lens regarding own compensation. Concern about the economic prospects and viability of the profession clearly drives attrition, which is discussed further in a subsequent section of this thesis at.[348]

[348] *7.3.3 Varietal 3: Complex (or even wicked) on page 247.*



	strongly agree	agree	neutral	disagree	strongly disagree	N/A
Un	6%	9%	20%	24%	38%	3%
O	0%	17%	33%	33%	17%	0%
W	5%	10%	22%	41%	19%	3%
I	0%	8%	8%	33%	50%	0%
C	0%	0%	17%	17%	67%	0%
B	3%	13%	16%	36%	30%	3%

	strongly agree	agree	neutral	disagree	strongly disagree	N/A
Un	7%	5%	18%	32%	34%	4%
♂	3%	14%	18%	37%	25%	3%
◇	14%	0%	29%	29%	29%	0%
♀	4%	7%	22%	37%	28%	3%

	strongly agree	agree	neutral	disagree	strongly disagree	N/A
Un	18%	27%	17%	18%	14%	6%
O	17%	42%	8%	8%	25%	0%
W	12%	31%	19%	19%	11%	7%
I	17%	8%	17%	25%	25%	8%
C	0%	33%	0%	33%	33%	0%
B	11%	24%	25%	22%	12%	7%

	strongly agree	agree	neutral	disagree	strongly disagree	N/A
Un	20%	27%	14%	18%	14%	7%
♂	15%	30%	20%	18%	11%	6%
◇	14%	14%	43%	14%	14%	0%
♀	9%	25%	19%	25%	17%	6%

Figure 69: APs' perceptions on compensation - self vs. the field

Fit with values, abilities and challenge

Fit with values, abilities and challenge is an enabler in a quest for meaningful work.[349] According to survey data, many of the survey respondents (87%) felt that their personal values fit the profession, with only eight per cent in disagreement or strong disagreement. As shown in *Figure 70,* 93% of the respondents felt that they possess the skills and abilities to do their work and, as shown in *Figure 71*, 82% felt that the degree of challenge presented by their work was appropriate to their level of qualification and experience. However, some respondents did express frustration, for example~

> *Not getting enough responsibilities and feeling stagnant, like I was not growing as I would have like to. As a young black Architect, to take responsibility for one's own growth is a daunting undertaking but one has to in order to realize growth in the profession.*
>
> (38-year-old black male)

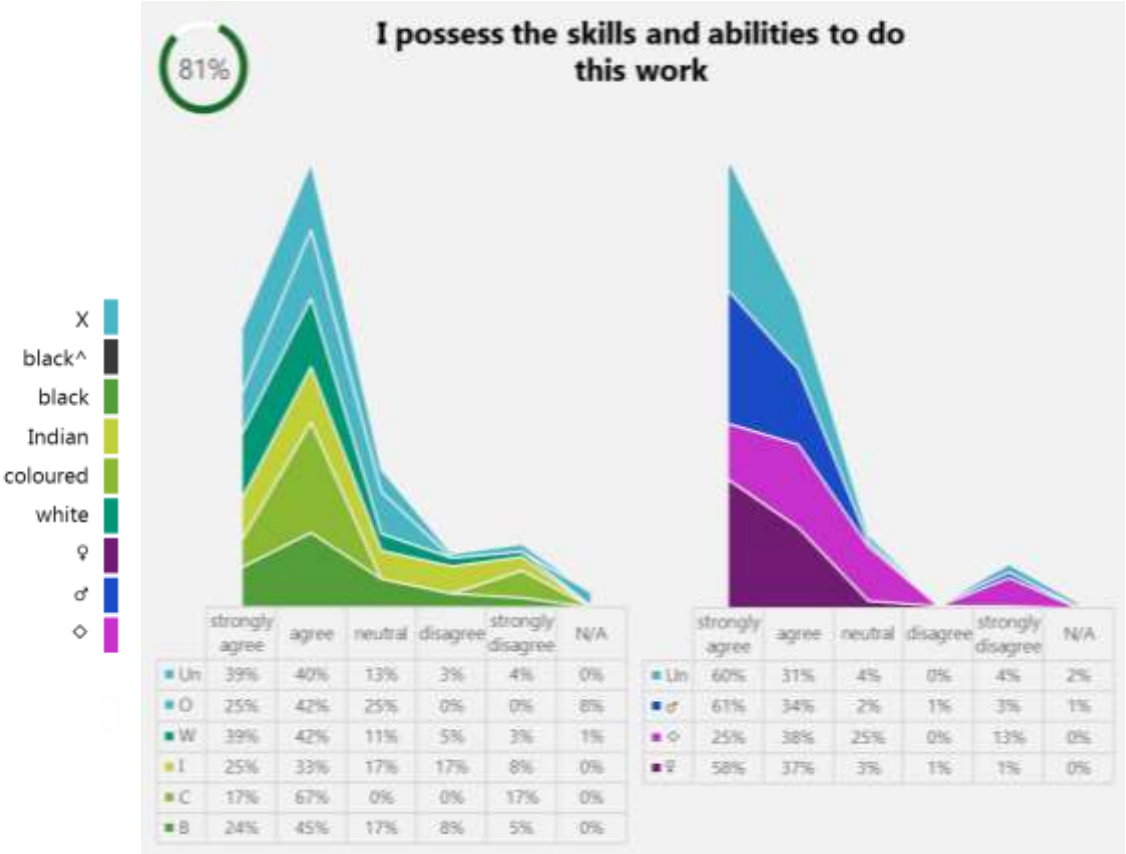


Figure 70: Skills and ability

Most of the respondents agreed that their personal values fit the profession. See *Figure 71*. The respondents were asked to indicate the profession's three most valuable character or personality traits.[350] Passion, paying attention to detail and resilience were ranked highest, as displayed in *Figure 72*.

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[349] *See 3.3.3 Current Perspectives on Retention, Attrition, and Transformationon page 76.*

[350] *The answer order was randomised, and answers were weighted by ranked order.*

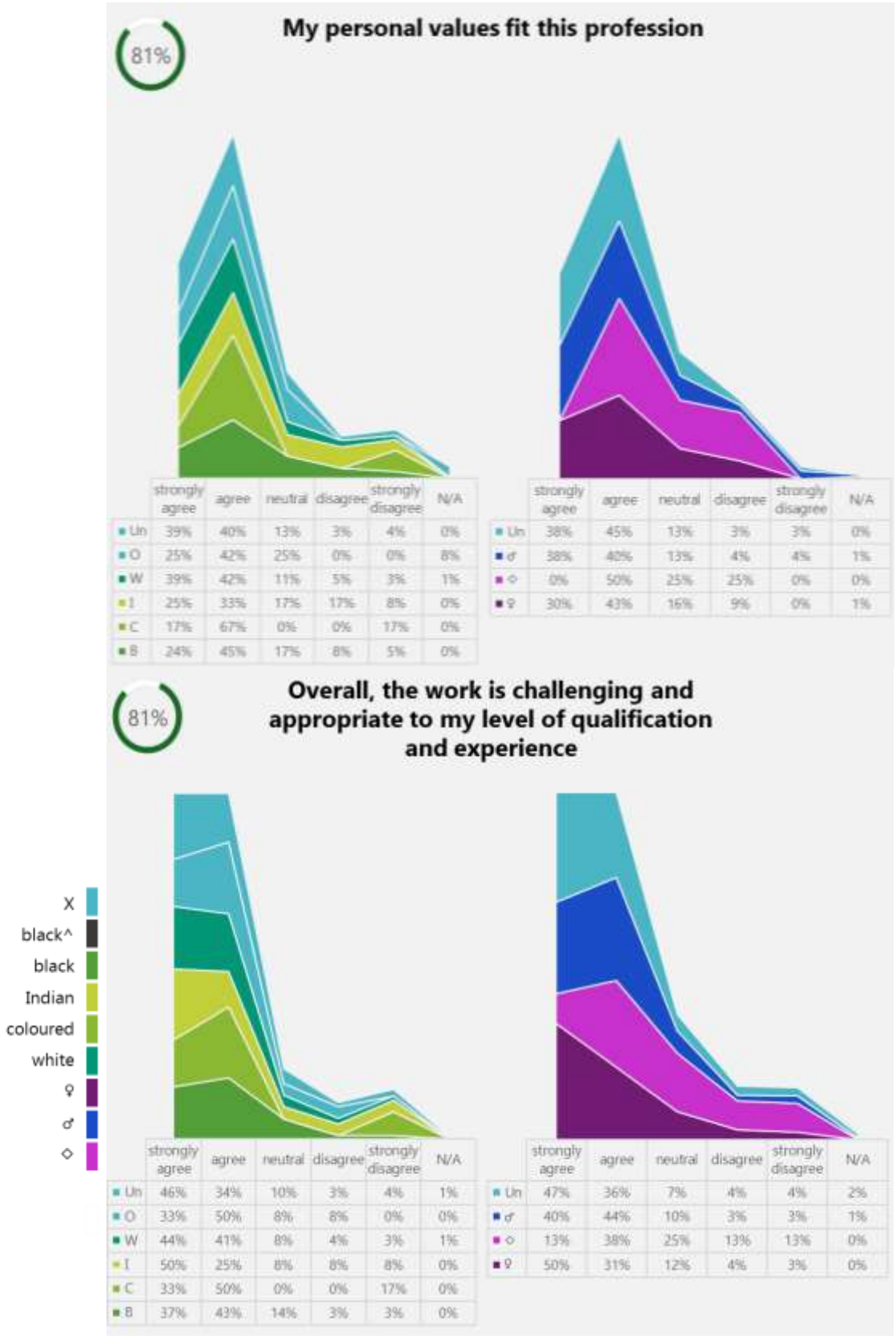


Figure 71: Challenge appropriate to qualification and experience

Views on promoting retention from the field

The final question posed in the survey was '... do you have any comments, thoughts or suggestions to share on the topic of retaining professionals in architecture?' There was significant variance in participation rates according to gender and race across the 269 (or 63%) of the respondents who furnished an opinion. For example, 59% of persons self-identified as 'Indian' answered and 100% of individuals self-identified as 'coloured' elected to present an opinion. Some 88% of persons categorised as '◇' completed this question, compared to 60% of the female respondents. Persons who elected not to furnish gender or race were the least responsive participants to this question at 20% and 27%, respectively.



Figure 72: Proportional chart of valued traits for the profession

Four of the respondents expressed surprise that retention was a concern to the profession. Pragmatically, one respondent proposed oversupplying the market by producing more graduates so that attrition is inconsequential. A further four respondents registered their view only that this was a crucial issue for the profession. Eight others indicated that, whilst retention was a problem, they had little to no confidence that this could be addressed, or that they could propose a solution. Fourteen of the respondents placed extraneous dynamics - beyond the influence of the profession - at the centre of the issue of retention. This included socio-economics fundamentals, politics, and markets. Several respondents conveyed a laissez faire attitude to the topic of retention. Individuals should be free to remain or leave at their discretion. For example,

> *I personally believe it has to be a choice of the individual, because architecture requires a lot of work and finances just to simply get your qualification from university. So if an individual is prepared to go through the sleepless nights, to go through being criticized and being told their project isn't good enough, if they are prepared emotionally and mentally then I believe they will be able to handle it ... at the end of the day, it is down to the individual.*
>
> (25-year-old black male)

Multiple views regarding the underlying causes or potential solutions were expressed. Excluding issues elsewhere addressed,[351] the most prevalent themes related to retention are set out in *Table 14* ranked by the number of times they appeared.

The most significant factor identified for retention was a need to promote the appreciation of the profession, and its role in the built environment among the public, with clients, regulators and within the profession itself (n=48). Fair compensation was the second most significant feature (n=40), with a frequent recognition of its integral connectedness with the widespread practise of discounting fees and undertaking work at risk, which were jointly ranked third (n=18). Eighteen respondents perceived that education or curriculum reforms, skills and workplace professional development were critical to the retention of professionals. Formal CPD was widely criticised for quality, cost, and relevance. The most significant factor identified for retention was a need to promote the appreciation of the profession, and its role in the built environment among the public, with clients, regulators and within the profession itself (n=48).

Table 14: Themes for improved retention

appreciation, value or recognition for the profession / architecture	48
fair compensation	40
curriculum/education reform, skills and professional development	24
discounting and working at risk	18
accessibility	14
clarification, refinement or redefinition of role or scope of work	14
working conditions including workload and boundaries	13
protection of the profession, quality and reservation of work	12
simplify	11
ethics	7
transitions	6
flexibility	5
professionalism & personal growth	4
fair job market	4
competitive environment	4
local authority	3
solidarity/ unionisation of the profession	2
reduced interference	2
stigmatism of lower registration categories	2

Thirteen respondents cited a need to improve working conditions, through things like reducing (or at least compensating) for overtime, respecting work/life balance etc. Similarly, 11 of the respondents called for deregulation, simplification, and reduced demands in the professional culture. “Make Architecture a fun, artistic and rewarding experience!” (70-year-old white male).

[351] *SACAP-related items (n=15) and call for registration fee reduction (n=10).*

A few of the respondents identified a need to improve business acumen among APs and to learn from the business sector. For example, a respondent whose registration had lapsed, proposed that the architecture profession learns from business schools in terms of learning format for postgraduates. Furthermore, he supposed~

> *…the approach to acceptance and development of undergraduate students in architecture is something to explore further to create an environment that is enabling and motivating to retain professionals in architecture.*
>
> (41-year-old Indian male)

Twelve of the respondents addressed the protection of the profession, quality, and reservation of work. However, there was some lack of consensus on whether access or exclusivity is desirable.

Text Box 8: Selected recommendations from APs on retention

1. *Perplexed, I believe the architectural practices maintain a level of traditionalism and that is the biggest cause of losing talent - I'm one example. For that reason, I'm happy this is a big topic because the industry needs a good "shock" to realise the change needed. (29-year-old white male)*
2. *architects need to become more accountable for the role they play in how our cities grow wrt resilience and sustainability*
3. *Innovate the profession asap (39-year-old black female)*
4. *When I was younger in the profession, architects were client's agent, try to revive that. (32-year-old male)*
5. *expand cultural dimensions of architecture, vis a vis commercial professionalism (68-year-old white male)*
6. *Architecture is a specialised career. Not everyone has the ability/ skill to pursue a career in it or practice in it. Looking beyond South Africa at international examples, architects have a specialised role- and that's to design, not take on the roll of specialists consultants. In South Africa the expectation is to do everything. (44-year-old Indian female)*
7. *diversification of professional services (66-year-old white male)*
8. *Pay them more, ease up the working hours, stop glorifying the profession. As amazing as it can be, it is only a job. It is not worth your health, well-being, peace of mind, or personal relationships with others in your life But first: Stop allowing clients to get away with massive discounts and crazy deadlines. All problems stem from that Creating a union to protect workers rights and to go after large developers / clients that squeeze architects would be a great step in the right direction*

6 CAPITAL AND ITS FLOWS

Chapter six aims to critically examine the dynamics of capital flows and exchanges within the architectural field from ~2000 to ~2019.

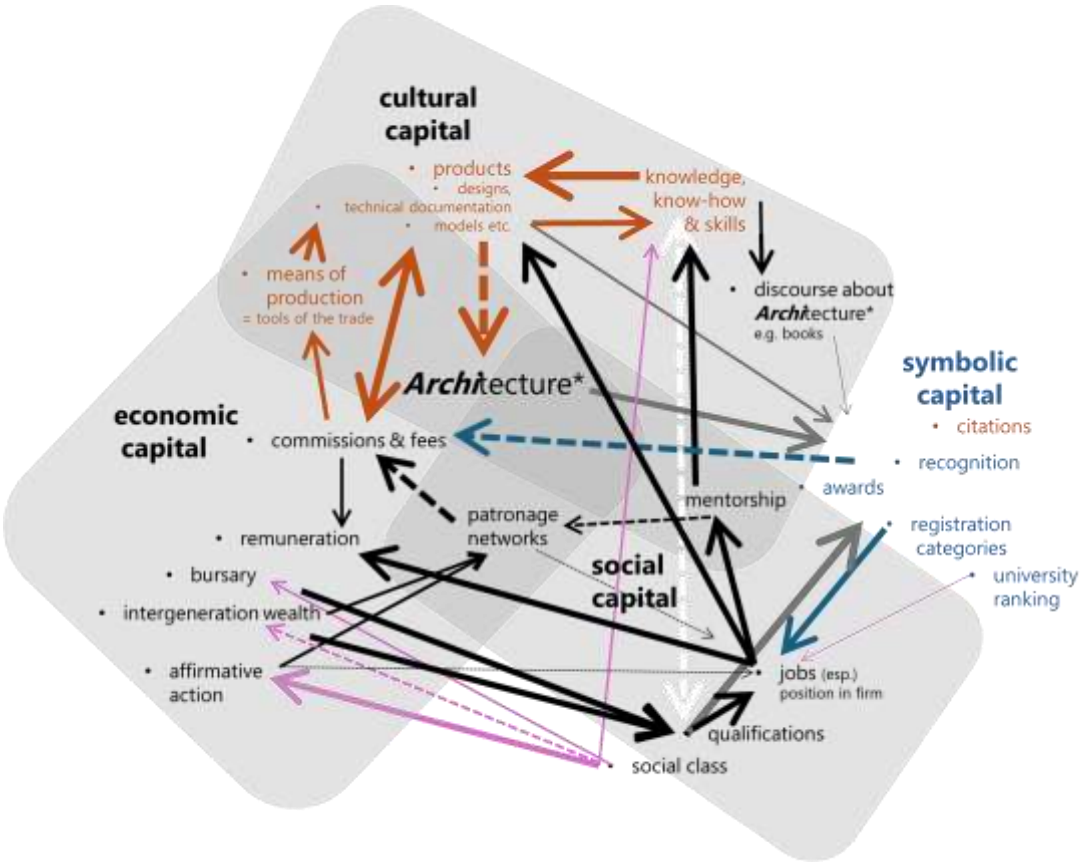


Figure 73: Capital exchanges, trade-offs, cooperation and competition

Within the objective relational fields set out in chapter four, actors can compete and cooperate to access economic, social, cultural and symbolic capital. These can be accumulated and exchanged between various forms. Bourdieu conceptualised that actors endeavour to amass various types of capital. Still, that capital tends to have different values depending on who you happen to be (for example, by virtue of social class, linked to race, gender, background, etc.). To acquire status and distinction, not only does the volume of accumulated capital count, but the kind and the trajectory understood over a protracted time (1984:117-119) of its prospects.

Thus~

> *The primary differences, those which distinguish the major classes of conditions of existence, from the overall volume of capital, understood as the set of actually usable resources and powers-economic capital, cultural capital and also social capital... The differences stemming from the total volume of capital almost always conceal, both from common awareness and also from 'scientific' knowledge, the secondary differences which,*

> *within each of these classes defined by overall volume of capital, separate class fractions, defined by different asset structures, i.e., different distributions of their total capital among the different kinds of capital. Once one takes account of the structure of total assets - and not only, as has always been done implicitly, of the kind in a given structure, 'birth', 'fortune' or 'talents' ... one has the means of making more precise divisions and also of observing the specific effects of the structure of distribution between the different kinds of capital.*
>
> (Bourdieu,1984:108-109)

This section elaborates on a set of secondary differences, building on structural ones described in chapters three and four, to further examine the field dynamics through distribution and exchange. Some of the exchanges typically available and entered into daily and particular to the architecture field are illustrated in *Table 15* by way of hypothetical examples.

Table 15: Illustrative capital exchanges for APs

from\to	**economic**	**social**	**cultural**	**symbolic**
economic	invest in expensive graphics cards using fee income	use the trust fund for studies at an ALS	use new graphics card for photorealistic VR flythrough of new design	undertake pro-bono work to gain respect and prestige in the community
social	get a raise when getting a job promotion	get a job as a candidate after graduating	attend a SACAP webinar to learn more about the code of conduct	articulate from PAD to PAT via RPL
cultural	prepare a brochure for developer to sell off-plan	present on VR in architecture at a design trade show	use design skills to sketch a concept for a new gatehouse	publish a coffee table book on shack chic to critical acclaim
symbolic	raise fees after winning an architectural competition	negotiate a promotion on successfully completing the PPEs	award-winning building added to a portfolio	article in the New York Times celebrating the APs' lifetime achievement award

Among the many tradeable capital assets earned and sought in the architecture profession, B-BBEE credentials, NSFAS, mentorship, winning designs, portfolios, prestigious qualifications, higher registration categories, remuneration, architectural commissions, and intergenerational wealth have been identified as ones which can be leveraged over prolonged periods and accrued more surely over time than capital gained through daily interactions. See *Table 15*. Actors have multiple options on how to cooperate and compete and trade and invest their assets to gain distinction, as illustrated in *Figure 73*. In the following chapter, I have selected a few of these capital exchange transactions and trade-offs and framed them individually. I discussed the vicissitudes of their trajectories over the period 2000 to 2019. I considered how opportunities may tend to present differently for different agents according to contingent features, such as race or gender, as a system of differences, per Bourdieu (1984).

6.1 Economic → Cultural Capital

NSFAS vs. intergenerational wealth

- **Form of capital**: Economic capital → cultural capital
- **How it can be traded**: Provides financial support for education, which can lead to qualifications that enhance employability and professional status (cultural and social capital). See *Figure 74*.

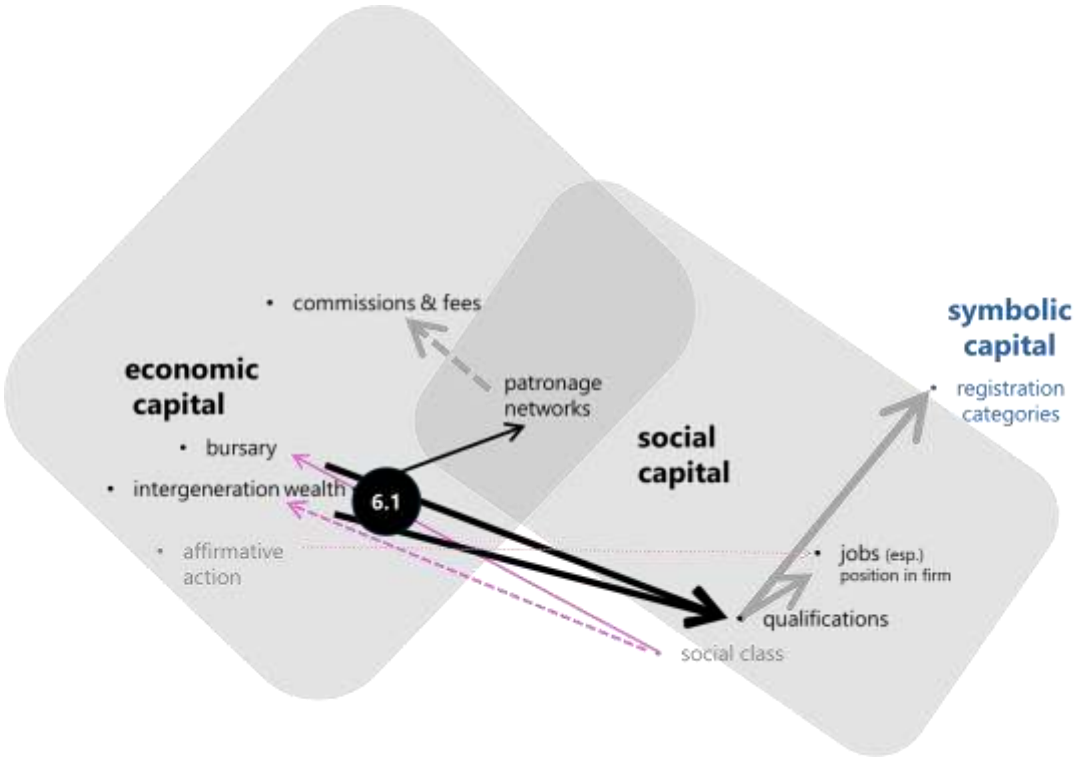


Figure 74: Exchanging economic for cultural capital – system of differences to access qualifications

NSFAS was introduced earlier as an instrument to effect transformation through access to tertiary education.[352] De Villiers (2023) suggests that NSFAS was an instrumental use of economic capital in the demographic transformation of the student graduate body. Data shows that NSFAS students perform better academically, on average, and that grants have been preferentially accessed by black^ students (De Villiers, 2023:11-13; Wildschut & Mncwango et al., 2018:41), thereby making it potentially a very potent retention and transformation instrument. Despite the considerable investment, the impact of NSFAS has been limited in the architectural field. The data indicates that only one per cent of architecture students were NSFAS-funded in 2018, starkly contrasting the national average of over 26% for all graduates. This discrepancy suggests that the architectural field has not effectively leveraged NSFAS as a transformative instrument for demographic change within the profession. The limited uptake of NSFAS funding in architecture raises questions about the accessibility of architectural education for students from historically disadvantaged backgrounds, particularly given the broader context of NSFAS's intended

[352] *See 1.3.1 Cost of production of professionals on page 21.*

purpose to enhance educational access and equity. The qualifications supported by NSFAS, such as the Bachelor of Technology in Architecture and Architectural Technology, do not lead directly to the professional registration category of Pr. Arch. This creates an additional barrier for economically disadvantaged students, particularly black^ students, in accessing the lengthier, more prestigious degrees that facilitate higher professional registration and better employment opportunities. See *Table 2*.

Pursuing advanced degrees post-graduation is a strategic move within the field to accumulate social, symbolic, and cultural capital to enhance prospects for accessing higher registration categories, more lucrative employment opportunities and greater economic capital.[353] The widespread preference among ALS was to admit those applicants with practical work experience to postgraduate degree programmes, thereby incorporating the apartheid era practise, when an undergraduate university degree was five or six years and included a year of practical work experience outside of the university. The decision to return to ALS after a period in the workforce, and post ~2004, with a qualification in hand, involves relinquishing economic capital in the short-term. This sequence may disincentivise graduates without intergenerational wealth who may have greater pressure to become economically independent and to contribute to family finances to return to ALS for post-graduate qualifications[354] (Mangoma & Wilson-Prangley, 2019; Portnoi, 2009; Vergottini, 2023; Bingham, 9 April 2024).

While students meeting academic and socio-economic eligibility criteria of all races and genders could apply for NSFAS (the largest bursary scheme among limited available ones), families with intergenerational wealth could fund studies or access credit to invest in education. Since white families emerged from apartheid with greater accumulated economic capital in the form of accumulated intergenerational wealth (in general) than black^ families (Freund & Padayachee, 2021), they were more commonly able to exchange these for social and cultural capital in the form of qualifications, and to access patronage networks. This is summarised in *Table 16*.

Table 16: Economic → cultural capital exchanges with estimated effect size (eft) and trajectory (trj) by race and gender

6.1		**Eft**	**Trj**	**Notes:**
economic → cultural & social	♀	o	→	NSFAS & intergenerational mobility unaffected by gender, trajectory ~stable
	♂	o	→	NSFAS & intergenerational mobility, trajectory ~stable
	black^	+	↗	Better access to NSFAS – but hardly utilised for architectural studies (low effect size), a major increase in NSFAS funding between 2000 to 2019, upward trajectory
	white	++	↗	Better off economically through intergenerational wealth (accrued economic capital), invested in degrees, trajectory upwards but less steep → 2019 due to overall economic performance

[353] *See 4.3.1 Name-calling on page 111.*

[354] *This phenomenon has been given the colloquial term 'black tax', due to its high prevalence.*

6.2 Social → Cultural Capital

Mentorship

- **Form of capital**: Social capital → cultural capital
- **How it can be traded/ leveraged**: Mentorship is an institutionalised instance of social capital which can be leveraged by accessing guidance and knowledge from experienced professionals through social networks to develop cultural capital by imparting habitus, improving skills which can lead to career progression, leading to better job opportunities and professional recognition. See *Figure 75*.

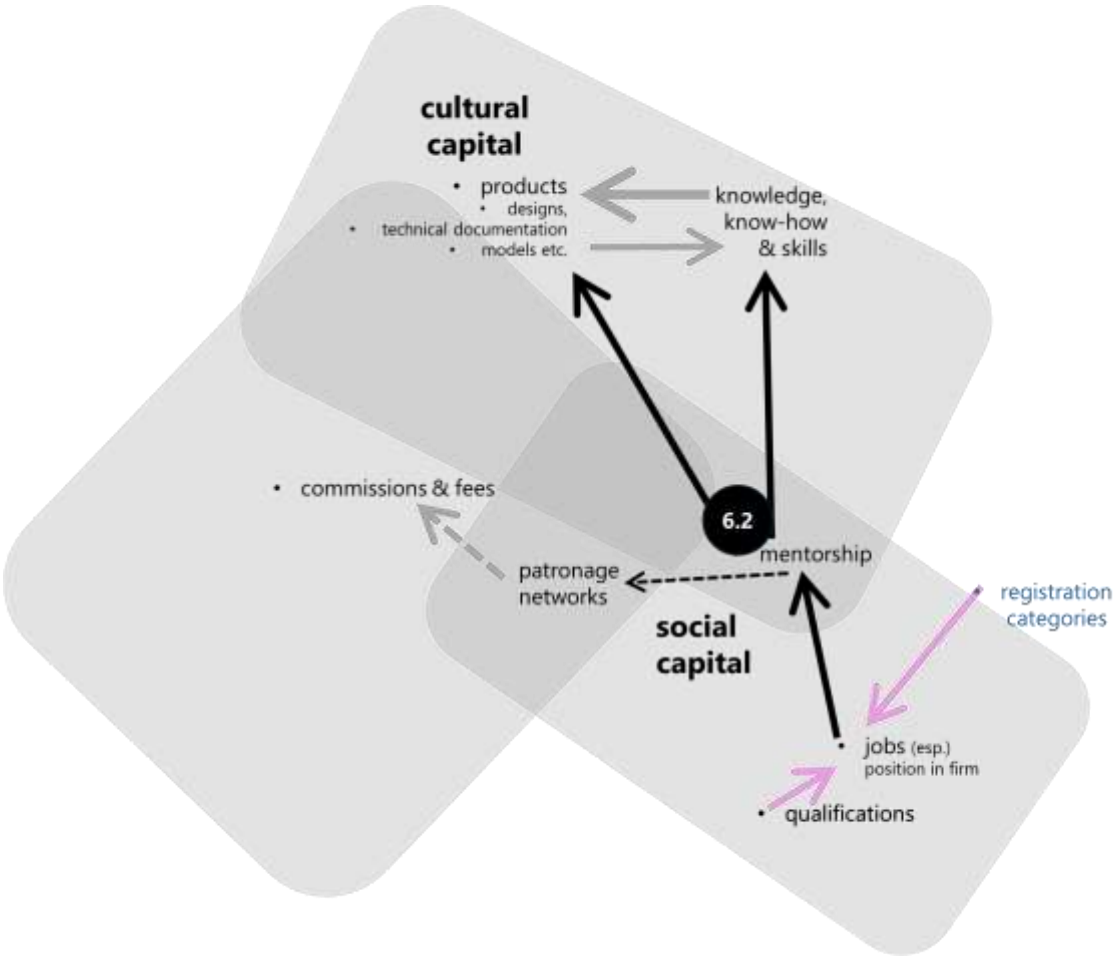


Figure 75: Exchanging social for cultural capital – mentorship

The importance of mentorship to social capital formation was introduced in the literature survey and its implementation in the local context was discussed earlier.[355] APs' encounters as mentors and mentees were extensively addressed earlier.[356] This research indicated that the quality and availability of mentorship varied significantly. Without guidance or training for mentors, the quality of mentorship may be highly variable, and compatibility between mentor and mentee may be serendipitous. Considering that more than 40% of APs (and growing) are solo practitioners (Vosloo, 2017:4; SAIA, 2020:8), there is likely a systemic constraint on the pool of available mentors.

---

[355] *See 4.4.2 Discretionary social capital on page 129*.

[356] *See Mentorship on page* 201.

Advocates of diversity in the workplace, such as SAIA President Amira Osman (SAIA,15 June 2021) and key informant Davis (29 April 2024), among others, have acknowledged their white male mentors and expressed appreciation for the role in their professional development, whilst nevertheless supposing that having a choice to have a mentor of similar age, gender and race would be preferred by some individuals. Moreover, both enjoyed close relationships with their fathers, who were in the architecture profession and construction industry, respectively, in addition to white male mentors. The survey responses indicated that some graduates struggled to transition from education to professional registration, with some citing a lack of mentorship as a contributing factor to their inability to register.[357]

The increase in the prevalence of solo and small enterprises provided challenges for all graduates in finding employment and mentorship. However, this was at the discretion of a relatively untransformed cohort of RPs. Additionally, until the architecture professional pipeline has fully transformed, there will continue to be a numerical lack of mentors for black^ and women graduates and apprentices with similar demographic characteristics and increased expectations for those in the profession to mentor others.[358] The accessibility of mentors to all graduates and apprentices should have been on an upward trajectory between ~2000 and ~2019 due to natural social transitions from homophily.[359] The opportunity to access concordant mentor/ mentee relationships should have been on an upward trend due to a transforming professional pipeline. However, the overall pool of available mentors (in concert with a tendency to practise solo) has been trending downwards, whereas need (number of APs graduating) is growing. As mentorship is a requirement to enter the profession, this poses a barrier. The growing issue of graduate unemployment was discussed earlier,[360] which pointed to the disproportionate effect this had on blacks^ and women. This is summarised in *Table 17*. Moreover, this situation has the makings of a wicked problem since it is unclear whether anyone can be compelled to undertake the responsibility, how opportunities could be fairly distributed, or even how (or whether) they could be incentivised.[361]

Table 17: Social → cultural capital exchanges with estimated effect size (eft) and trajectory (trj) by race and gender

6.2		**Eft**	**Trj**	**Notes:** *Un/employment is presented as an indicator and not assumed to be causal*
social → cultural	♀	--	↘	Unemployment of graduates disproportionately affects women; accelerating trend
	♂	-	↘	Unemployment of graduates affected everyone and increased (lower effect size for males)
	black^	---	↘	Unemployment disproportionately affects black^ graduates, and increased
	white	-	↘	Unemployment of graduates affected everyone and increased (lower effect size for whites)

[357] *See Mentorship on page 183.*

[358] *See Volunteerism on page 132.*

[359] *See Homophily on page 129.*

[360] *See 4.5.2 A spectre of unemployment on page 134.*

[361] *See Wicked on page 309.*

6.3 Cultural → Symbolic Capital

External recognition

- **Form of capital**: Cultural capital → symbolic capital
- **How it can be traded**: Winning competitions and publishing books are examples of cultural capital assets APs can invest in to enhance their reputation and visibility (symbolic capital). See *Figure 76*.

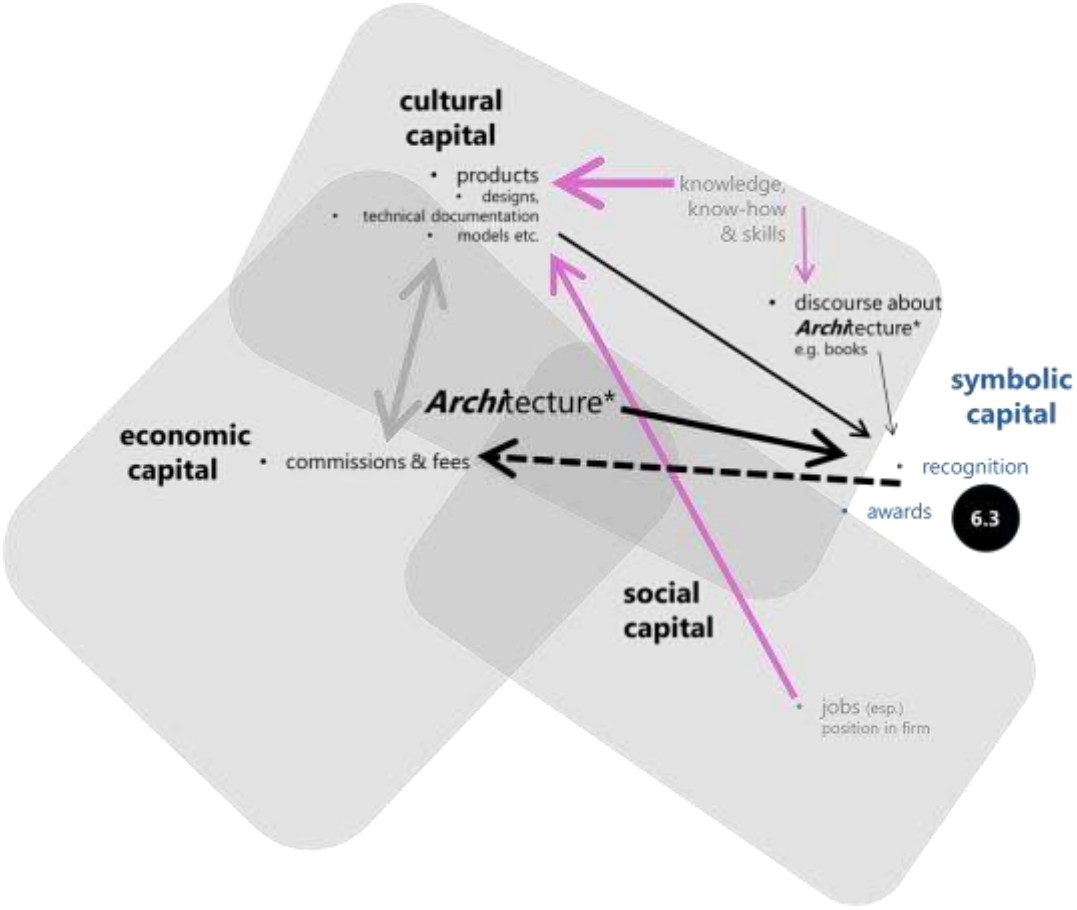


Figure 76: Exchanging cultural for symbolic capital – recognition and rewards

The potential to leverage media to raise the profile of individual professionals, firms and the profession and its role in attracting talent and mediating attrition, retention and transformation was introduced earlier.[362] Winning competitions and publishing books are two examples of cultural capital assets APs can feasibly convert into symbolic capital, allowing them to command higher fees and attract prestigious projects and, arguably, even more significant investment (Bilbao effect, Alaily-Mattar & Büren et al., 2019), via the media. However, the realisation of this exchange value would seem to depend on three criteria: i.) representation in the profession, ii.) alignment of design with community values and needs, and iii) utilising the mechanism, as will now be discussed.

[362] *See 4.3.2 (In)visibility of the profession in media on page 115.*

Book example

Some academics raised concern about the scarcity of theoretical discourse in South Africa, finding it too often authored by designers themselves (hence lacking epistemological distance) and predominantly from white authors (De Raedt, 2012:10), potentially arising from an observed lack of architectural critics and historians (Feireiss, 1998). Among the few published works were various technical books (Schmidt & Steynberg, 2013), books cataloguing architectural works such as "South Africa: a Guide to Recent Architecture" (Muwanga, 1998); "*Architectural Guide South Africa: Architectural Guide*" (Clarke & Fisher et al., 2014); and monographs such as "*Decade of Design from the office of Mathews + Associates Architects CC*" (De Beer, 2010) and "*The architecture of Peter Rich: Conversations with Africa*" (Noble, 2020). Among the more analytical and critical works were books concerning heritage practice "*Desire Lines: Space, Memory and Identity in the Post-Apartheid City*" (Murray & Shepherd et al., 2008); "*Changing Space, Changing City: Johannesburg after Apartheid*" (Harrison & Gotz et al., 2014) and "*Blank: Architecture, apartheid and after*" (Judin & Vladislavić (eds.), 1998). A 2008 catalogue of built projects, "*Contemporary South African Architecture in a Landscape of Transition*" (Deckler & Graupner et al., 2008), aimed~

> *Through both text and full-color [sic] photographs [to] explore the ways in which local architects have contributed to change in this country through their work and to the development of a new sense of cultural identity. The focus is on buildings that create beauty from utility and need, that respect their place in the landscape, that connect people to their social and physical environment, and that unlock the potential of cities to amaze and astound.*
>
> (Deckler & Graupner et al., 2008)

In one review, it faced criticism for its absence of black^ architects, which fails to represent the broader South African demographic. This review on Amazon was scathing~

> *What does South African mean? This book as an attempt by Europeans in South Africa to establish themselves as modern, liberal, and edgy, like their European and European American brothers. South Africa's population is predominately indigenous African, yet only one of the architects in the dozens here, is indigenous African. The point being is that European South Africans are still practicing discrimination in architecture (like other Caucasian controlled countries) and that this book should be classified under European architecture. I repeat, it is not representative of a "new and racially harmonious" South Africa. It is the same old Dutch and British colony with a smile and a gun instead of just the gun.*
>
> *(Tyndale, 2011)*

About 10,000 copies were produced over two printing runs, making it successful for an architecture book, especially in the local market. Yet, the criticism implied a failure in the expected conversion of cultural capital into symbolic capital. The publication's authors explained the rationale and method for assembling its contents. They had secured an exhibition spot at the San Paulo Biennale in 2005 but needed funds to produce a contribution or even attend the biennale. The architect, curator and co-editor Anne Graupner elaborated~

> *We couldn't secure funding from culture-related sources because South African culture funding didn't consider architecture… there was none (i.e., no tick boxes for architecture). This exactly mirrored the lack of discourse and appreciation for the transformative work that was being done in SA by architects in all kinds of landscapes (see book chapters).*
>
> (Graupner, 25 July 2024)

After seeking and failing to obtain funding support from the government's Department of Arts and Culture and the VAs, the authors openly invited ideas about how to fund the initiative through the VAs. Ultimately, the authors found contributors to fund their own exhibition panels, which were later compiled into the book. Graupner elaborated~

> *Doing the work we did required a critical approach to measure up to an international standard, but most of all we had the ambition to create a first accessible narrative (exhibition audience) in representation of the South African architectural landscape in the socio-economic context of 2004-2006. 10 years post the first elections. We were fully aware at the time of the lack of representation, and so opening our profession, the educational system, and our careers as curators up for criticism and scrutiny.*
>
> (Graupner, 25 July 2024)

Deckler acknowledged the review's position: "To consider, in 2005 when the book was produced, there were substantially less black owned and run practices. Even today the profession is relatively untransformed" (17 June 2024). His co-author concurred~

> *I am personally of the opinion that back in 2005, most Black-owned practices would have been absorbed in the then-popular JV [joint venture] tenders for government projects. This procurement support may have worked well back then, but while it drive a certain form of transformation, it also served to suppress the individual identity and brand identity of Black-owned practices. Larger and more ambitious Black practices became absorbed into 'delivering' on 'major projects' for 'the usual suspects': White-owned practices with capacity, capital, and proven track record for being able to carry major project risk. Very few Black-owned practices back in 2005 were forging an independent path of solo work and solo project acquisition.*
>
> (Rasmuss, 20 July 2024)

Graupner concluded~

> *I believe it's crucial to consider the number of registered architects and architectural companies per thousands of people for a comprehensive contextualisation within the Zeitgeist ` under which the work of sharpCITY was produced. And it is NB. to also mention, examine the growing number of graduates (black female!) since then… It was highly effective to bring SA architecture into the public realm, into the coffee shops, to a wider audience, to create new imaginaries, and to finally have a tool / reference book to educate our clients …. (a statement made by many of our colleagues and students). Making architecture accessible to non-architects was one of the most critical drivers in the sharpCity approach.*
>
> (Graupner, 25 July 2024)

The cultural capital embodied in the book, therefore, mirrored the prevailing professional landscape. The criticism did not account for the historical context and the enduring systemic factors that limited the presence and visibility of black^ architects at the time. Tyndale (2011) made an interesting departure from fixing the critical gaze on the showcased architecture (the 'opus operatum'), choosing instead to address it from the production of works (the 'modus operandi'). [363] Published books on architecture in South

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[363] *Bourdieu (1990:34) posits that usually the relationship between the observer and observed is obscured. "There is no better example than that of art history, which finds in the sacred character of its object every pretext for hagiographic hermeneutics more concerned with the opus operatum*

Africa are a rarity, and many that are published address an academic audience. At least for this example, few of the contributors were black^, and this in and of itself may have failed to align with community values and needs, limiting its exchange value.

Design competitions

The theoretical role of architectural design competitions in the pursuit of symbolic capital was set out earlier.[364] However, as pointed out by SAIA statistics, by 2019, architectural design competitions were rare (2020:50), although, in the first decade of this study, they did gain traction, particularly for the purpose Marschall (2004) identifies as institutionalising the founding myths of the new democracy. Thus~

> *Soon after apartheid was abolished in 1994, the quest for a new, 'authentic' South African identity resulted in the emergence of the "Rainbow Nation" idea, picturing an equal, multicultural and reconciled society. As architecture is considered a crucial element in the promotion of this Rainbow identity, the country witnessed a remarkable "building boom" with its apogee roughly between 1998 and 2010. Huge investments have been made in state-driven projects which place the apartheid memory at the center of the architectural debate - mostly museums and memorials.*
>
> (De Raedt, 2012)

Among the first of these was the design for the new Constitutional Court, symbolic of the new (human-rights based) socio-political and cultural order, to be erected in a new idiom (to be defined) on the strategic 'Old Fort' site, which had been home to the military, the police and the traffic department (Middelmann, 2021), emblematic of state oppression and apartheid, (Le Roux, 2007:38) and hence crucible of symbolic violence. The 1997 brief called for fresh perspectives, new identities, and an embodiment of the transformative values long struggled for, hard-won. The competition conveners held social and cultural capital in abundance. In attendance were Constitutional Court Justice and struggle hero (Mott Foundation, 16 October 2013); the competition drew wide interest, legitimising the process. Moreover, the winners were a team of young, diverse, local APs from an international field of competition, affirming South Africa's latent talent and transformative potential. The final result~

> *... could not have been more gratifying. An international panel of judges – led by Charles Correa, the distinguished Indian architect – chose a South African entry. The young architects responsible for the winning submission – which was based on the concept of 'justice under a tree' – were Janina Masojada and Andrew Makin from Durban, and Paul Wygers from Johannesburg*
>
> (The Constitutional Court of South Africa, n.d.)

The building was completed and opened in 2004, after which the competition organisers declared the enterprise a success (The Constitutional Court of South Africa, n.d.). However, some scholars are critical. The work has not grappled with certain historical layers of the site. The precinct is encumbered by security measures and has restricted access to certain areas, and its palimpsest configuration as an enclave infuses it with an

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than the modus operandi and treats the work of art as a discourse to be decoded by reference to a transcendent code, analogous to Saussure's langue. It forgets that artistic production is also - to various degrees depending on the art and on the historically variable ways of practicing it - the product of an art...".

[364] See 4.3.3 Transformative potentialities of architectural design competitions on page 117.

unwelcoming, exclusionary feel, at odds with its purported role as a public space (Middelmann, 2021:44-46). Middelmann compellingly argues that the agenda served was a particular public remembrance – in which the legitimisation of the new state was "given precedence over an individual whose experience it is meant to commemorate" (Middelmann, 2021: 46).

A year after the Constitutional Court competition was launched, a competition was launched for a revitalisation project in New Brighton which included a museum precinct. Findlay's journalistic description eloquently extolled the innovative, sensitive, and multi-narrative architectural prowess of the winning design for the Red Location Museum (Findlay, 2011). Noero Wolff Architects (n.d.) received an octet of local and international awards. However, according to popular media reports, the local community was not persuaded, wishing instead to investment in the living (Staff Reporter, 21 April 2016). Smith lent insight~

> *[T]he residents of New Brighton were not unanimously in favour of the building of a cultural precinct and museum, and through a number of protests, closed down the museum. Renaming it 'a house for dead people', the community began to disassemble the museum building. The museum is now a ruin, its frame decomposing.*
>
> (Smith, 2016)

If the theoretic benefits of architectural design competition methodology posited earlier[365] can be applied in the South African context, these may be a powerful and unexploited way to bring out excellence, stimulate architecture and open new opportunities for unknown architects, irrespective of social capital. However, this would be subject to broad and diverse representation in the profession,[366] alignment of design with community values and needs,[367] as well as access to and utilisation of the mechanism.[368]

Table 18: Cultural → symbolic capital exchanges with estimated effect size (eft) and trajectory (trj) by race and gender

6.3		**Eft**	**Trj**	**Notes:** *Few publications and few competitions after the initial spate*
cultural → symbolic	♀	--	↘	Fewer women^ participants in competitions, lower VA participation
	♂	+	↘	Benefit from low competition
	black^	---	↘	Fewer black^ participants in competitions, lower VA participation
	white	++	↘	Benefit from low competition

[365] *See 4.3.3 Transformative potentialities of architectural design competitions on page 117.*

[366] *Broad representation was shown in 4.1 Quantitative View of the Pipeline on page 94, and per Felix (CUBES Faces of the City Seminar, 16 July 2024) to not (yet) be the case. Hence this criterion is not met.*

[367] *This criterion is cast into doubt with both the Constitutional Court and Red Location Museum examples, rendered in Design competitions on page 222.*

[368] *This criterion is also likely not met (SAIA, 2020:50).*

6.4 Symbolic → Economic Capital

Prestigious Qualifications, Prestigious ALS, Higher Registration Categories

- **Form of capital**: Symbolic capital → economic capital
- **How it can be traded**: Higher status qualifications, at more elite institutions, is held per doxa to lead to better job remuneration, opportunities for advancement and access to more challenging work, per the IdoW. See Figure *77*.

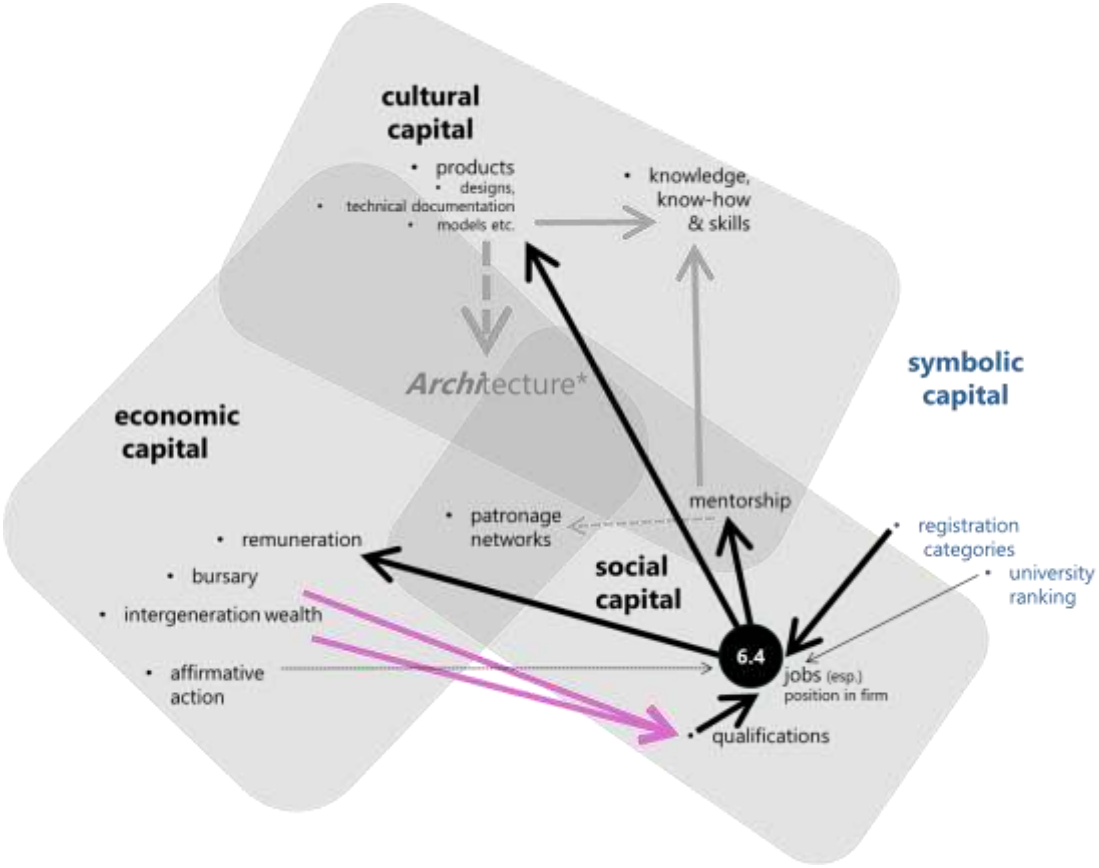


Figure 77: Exchanging symbolic for economic capital – system of differences through prestige

Prestige of registration categories

The architect Tunde Ojo-Aromokudu who studied architecture in Lagos in the 1980s and has had a very successful practice in South Africa since 2004, testified that he has been trying to exit the profession for several years because he believes there is a lot more for him to offer than remaining in the profession of architecture. For him, the profession has lost its prestige. His strategy is to sidestep into project management~

> *[S]omehow the industry has been watered down by so many entrants who are allowed to call themselves architects when they're not architects and the public does not know the difference. Some, as they do, they take advantage of it, you know. So, as a result of that, you find yourself competing with those that are not architects. And if you want to stay in the profession, you then have to come to the level or forget it. So that's really what's going on. You know, and there's no way the laws can enforce anything. Because if a guy who's a draughtsman decides to do a building that he's not supposed to be doing, he just needs to get a hungry architect to stamp it for him, and the job is done. So that's the thing.*
>
> (Ojo-Aromokudu, 5 March 2024)

The gradual status reduction of the profession generally, as embodied by the testimony of Ojo-Aromokudu can be seen as a weakening of a previous opportunity in the field to trade symbolic capital for economic capital. Compounding this was the public confusion discussed earlier,[369] yielding, in Bourdieusian terms, a system of differences vested in the prestige of qualifications and issuing institutions.[370]

Prestige of degrees

The structural reforms to ALS and degrees instituted nationally between ~2004 and ~2007[371] potentially contributed to this devaluation,[372] but met other objectives. Apart from the objective of integrating the formerly segregated higher education system and reconciling qualifications between institutions, the structural reform sought to align degree formats across institutions to allow for greater consistency, quality assurance, mobility, articulation and scaffolding. It organised qualification according to the NQF and the Higher Education Qualifications Sub-Framework, introduced in 2007 (SAQA, November 2013:33). The NQF was also informed by international initiatives, such as the Bologna process, which sought to standardise a three-cycle degree structure, consisting of bachelor's, master's and doctoral degrees, and to open a possibility of distinct academic and professional tracks (SAQA, November 2013:29). However, as discussed earlier, disincentives to acquire postgraduate qualifications, may disproportionately accrue to black^ university learners due to financial costs, bursary options, opportunity costs, and social pressures.

South Africa witnessed a rise in non-participation and escalating student debt from individuals of middle-income families (Nzimande, 2024). This absence was attributed to an affordability gap affecting students from households earning more than the NSFAS threshold but unable to fund tertiary education through personal financial resources or to access loans. The phenomenon was termed the 'missing middle' and affected all, but disproportionately affected black^ individuals (Garrod & Wildschut, 2021) and formerly black^ institutions (Van Der Merwe, 1 April 2021). The 'missing-middle' was therefore, in

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[369] *See 4.3.1 Name-calling on page 111.*

[370] *(Bourdieu, 1990:137-138)*

[371] *See 0 → 1– enrolled student to graduate on page 121.*

[372] *Bourdieu (1984:127-140) contends that academic credentials serve as markers of social distinction and symbolic capital, much like noble titles, rather than simply job qualifications. In South Africa, degrees have long held significant social value, resulting in increased tertiary enrolment post-1994. However, the expected benefits have not always followed. Bourdieu argues that when previously dominated groups compete for academic credentials, the dominant class intensifies its educational investments to preserve the scarcity and value of its qualifications, driving interclass competition and inflation of qualifications. Even as the job market devalues these credentials, individuals remain attached to their qualifications due to their social significance and the investments made. Bourdieu's concept of hysteresis explains the delayed recognition of this devaluation. Over time, individuals and society come to accept this decline in value, though often too late. Disillusioned by the diminishing value of their qualifications, young people experience a loss of social identity and self-worth. This fosters resentment towards the education system and the broader social structure. This collective disillusionment reflects a generation's inability to extract the same benefits from qualifications as previous generations, leading to a growing anti-institutional sentiment.*

and of itself, a barrier to black^ middle class enrolment. Although economic exclusion was a factor, it was compounded by other hinderances associated with socio-economic background, which produce layers of barriers to entry and progress in the profession, as a consequence of "the chasm of South Africa's inequality" (Le Roux, 2014).

Prestige of institutions

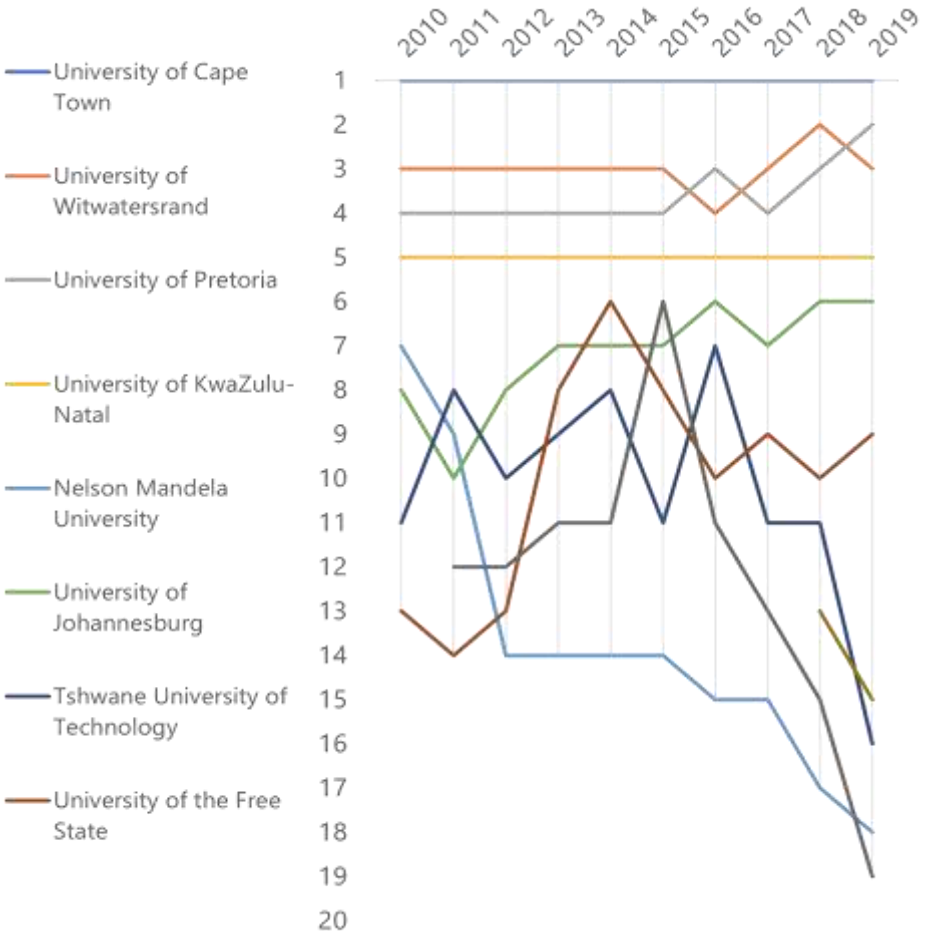


Figure 78: ALS-host institutions University rankings 2010 - 2019 (SCImago Institutions Rankings (n.d.[b]) data: visualisation by author)

Symbolic capital could be inferred from the prestige of certain educational institutions and qualifications, which was historically informed (Naidoo, 2021; Department of Education, 2001). For example, degrees from older public institutions or traditional universities generally held higher esteem than degrees from newer institutions[373] such as comprehensive universities,[374] and universities of technology. Broadly, public institutions and the qualifications they issued remained more highly regarded than private ones. However, there was some recent emerging evidence of rising perceptions of the quality and contribution of private institutions (Tankou Epse Nukunah & Bezuidenhout et al., 2019), as well as influential individuals asking whether degrees per se have utility (Musk, 2020: Motivation Madness, 2017).

---

[373] *That is the institutions which emerged as a result of mergers or refocus (Department of Education, 2004; Asmal, 2002).*

[374] *This distinction 'comprehensive' has subsequently fallen away.*

Status among institutions was contested, particularly among the 'younger' institutions, as can be seen by tracking independent university rankings for public institutions (SCImago Institutions Rankings. (n.d.[a], n.d.[b]). This, I submit, is a proxy for prestige and an indicator of how competitive positioning was between institutions, particularly among those most affected by the restructuring.

Registration categories and remuneration

Remuneration and compensation were introduced as key elements in retention literature.[375] It was identified as a critical issue among respondents in the "YOUR JOURNEY in South Africa's architectural profession survey".[376] According to doxa, remuneration should be correlated with position or job title, which in turn should be correlated with professional category. As shown in *Figure 79*, the total annual gross remuneration of APs was in a very wide range, but broadly correlated with the professional category (class) hierarchy. What is interesting is that, from ~2001 to ~2019, APs remained in virtually the same economic position as far as salaries were concerned. Their ability to convert social capital (professional category) into economic capital stagnated. Although SAIA represented only some RPs, this data corresponded with market data (Payscale, 2023) and my survey findings.

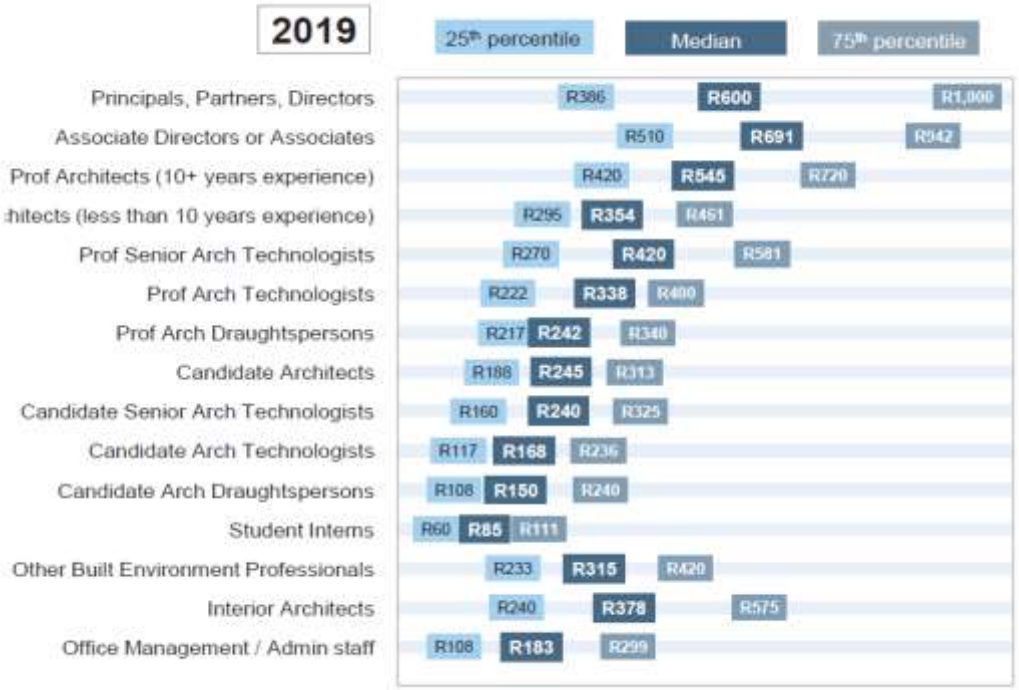


Figure 79: 2019 Total annual gross remuneration by professional category in R'000 (Source: SAIA, 2020:77)

[375] *See 4.5 Economic Capital on page 133.*

[376] *See Compensation on page 202.*

Comparing SAIA's 2001 report (quoted by Young-Pugh, 2005:34) and its State of the Profession: Business Benchmarking Survey (SAIA, 2020:77) revealed that very little change had occurred in APs' salaries from 2000 to 2019, although newly qualified technologists in 2019 may have been marginally worse off (~12%) and professional architects may have enjoyed marginal gains (~three per cent).[377] It might, therefore, be cautiously concluded that the ability of the profession to exchange social capital for economic capital seemed to show very little change from 2000 to 2019, possibly slightly extending class stratification. This is summarised in *Table 19*.

Table 19: Symbolic → economic capital exchanges with estimated effect size (eft) and trajectory (trj) by race and gender

6.4		**Eft**	**Trj**	**Notes:** *remuneration virtually unchanged between 2000 and 2019 = key is access to higher status registration categories = postgraduate studies (as RPL ineffectual)*
symbolic → economic	♀	++	↗	Access to higher status professional categories by access to postgrad, gender pay gap
	♂	+++	→	Access to higher status professional categories by access to postgrad
	black^	++	↗	Reduced access to postgrad, NSFAS & black tax
	white	+++	→	Access to higher status professional categories by access to postgrad

6.5 Social → Economic Capital

B-BBEE Credentials

- **Form of capital**: Social capital → economic capital
- **How it can be traded**: Used to secure government contracts and tenders, enhancing access to economic opportunities. See *Figure 80*.

B-BBEE, as an affirmative action policy aimed at empowering historically disadvantaged groups, particularly black^ individuals and women, and as a means of converting social capital to economic capital.[378] However, the effectiveness of B-BBEE in achieving its goals in the architecture profession was unclear. Each sector developed distinct B-BBEE codes. BEP, encompassing APs, fell under the construction sector's purview. In 2012, the Construction Sector Charter Council (CSCC) was established and tasked with the oversight, monitoring, and implementation of the South African Construction Code and the transformation status of the sector. It published a baseline report covering the previous five years in 2014 (CSCC, 2014), followed by another in 2021 (CSCC, 2021). These reports indicated very poor, though marginally improving, cooperation as the CSCC struggled to gather reliable data from measured entities, including BEPs and APs, who were reluctant to submit scorecards and certificates.

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[377] *In 2001, the average annual personal income of an architect in practice was approximately ~R 200,000 (~R 530,000 in 2019 terms/ adjusted for inflation), slightly lower than the professional architect's median salary with more than 10 years experience in 2019 (R 545,000). The annual salary of a newly qualified technologist was around ~R 70,000 (~R 190,000 in 2019 terms/adjusted for inflation), slightly higher than the 2019 median for a candidate architectural technologist, reported at ~R 168,000. Conversions were made using the Inflation Calculator - South Africa (Crause, 2024) based on a total increase over 17 years of 167% and a 5.9% average annual increase.*

[378] *See 4.5.1 Levelling the playing field on page 133.*

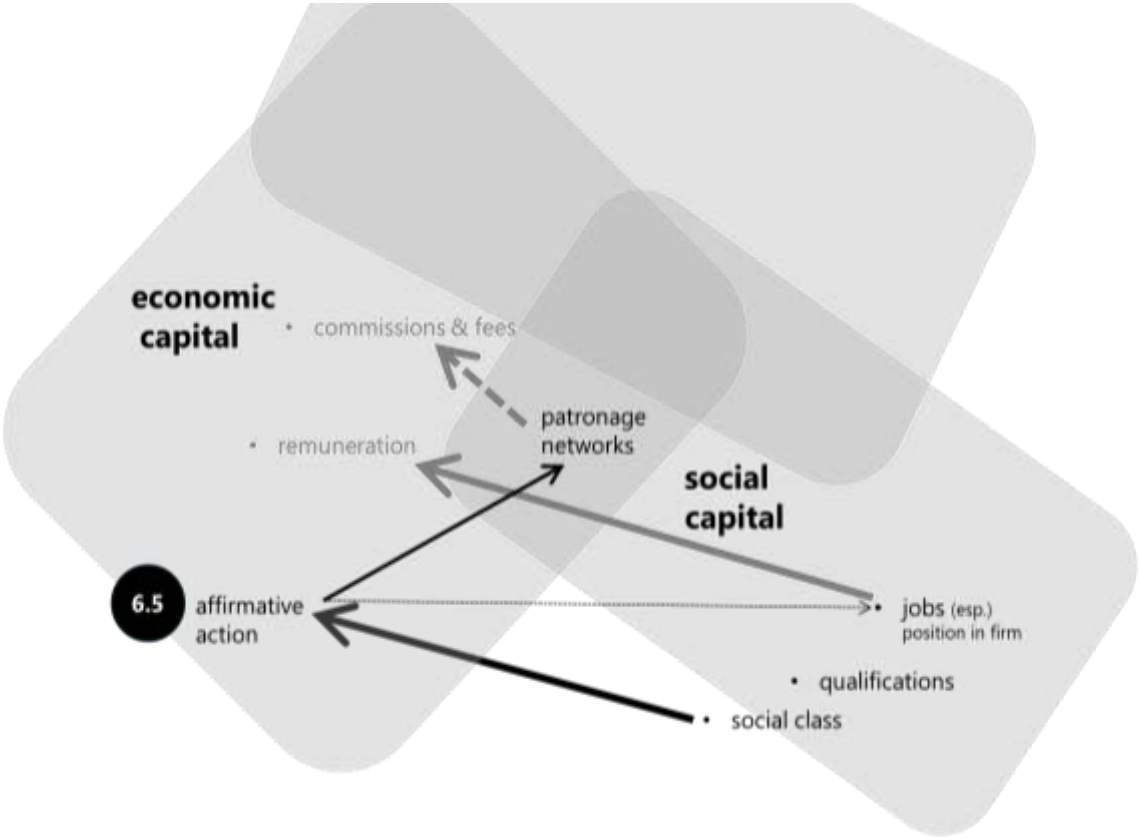


Figure 80: Exchanging social for economic capital – system of differences through affirmative action

Therefore, despite being the official data source, they provided little insight into B-BBEE participation among architecture professionals.

Mwale (2020:19) and Shai and Molefinyana et al. (2019:1) found that the time and economic capital required for certification and compliance posed challenges, particularly for small or informal enterprises. This is likely to have had a negative effect on startups and emerging practices, been a barrier to growth and consolidation for younger firms, and thereby been an inadvertent barrier to transformative participation. In its surveys from 2018 to 2020 SAIA found that most of its respondents were classified as exempted or Level 4 B-BBEE contributors. There was an observable trend among small, medium, and large firms towards acquiring Level 1 to 3 certifications, with an increasing proportion also attaining Level 5 and below (SAIA, 2020:13). This data, though collected only over three years, implies a possible increasing polarisation effect, with (paradoxically) more practices adhering rigorously to compliance standards while others disengaged from the process altogether.

As discussed earlier,[379] fronting may have resulted in the hollowing out of important technical skills among a few black^ and female practitioners, contributing to despondency. Key informant Naidoo notes that black^ women graduate and then join firms serendipitously and open-mindedly, not necessarily with a sense of direction in how their placement will unfold as a career trajectory. They have a feeling of being misplaced

[379] *See 4.5.3 The state discussed on page136.*

but are unable to apprehend why, at least at first. Gradually, it dawns that they are 'window-dressing: hired to boost the B-BBEE profile of the firm. Naidoo continues~

> *[Female APs] become 'stuck' in positions where their exposure is limited, as they lack networks or confidence to negotiate more challenging opportunities in that setting or to access alternate opportunities. These women then access public sector opportunities or simply disappear.*
>
> (Naidoo, 24 December 2021)

The "YOUR JOURNEY in South Africa's Architecture profession" survey conducted for this study had only one question directly related to B-BBEE.[380] However, it was raised by numerous respondents on open text fields.[381] One survey respondent identified that B-BBEE might be a limiting factor in the progression of white males in medium-sized practices, contributing to their dominance in small and tiny-size practices. Another respondent added that this may be a motivator for emigration~

> *I have friends (ages 35 to 47) who have been in large practices for a very long time, and very senior but are not offered associate positions because they do not contribute to the company's BBBEE status. They have left the country to work in the UK. I know of many of these stories. I guess I am one of these as well – where I did not really see a future where I will be valued or progress in an organisation*.
>
> (53-year-old white female)

One 38-year-old white female noted, "B-BBEEE is a farce. It is not uplifting anyone and only encouraging mediocrity and corruption". Two survey respondents identified B-BBEE as a contributing factor to practising outside the country, and several noted concerns about the sense of entitlement it engendered or reflected among its beneficiaries. Another two regarded it as a compliance exercise without authentic transformative value. Key informants I consulted on the topic (anonymous 4, 22 May 2024; anonymous 2, 2 July 2024; anonymous 3, 5 July 2024) expressed divergent views. Two of these participants regarded it as intrusive, anti-meritocratic, and administratively burdensome; whilst one deemed it fundamentally immoral and racist. A question posed was: "Is B-BBEE still necessary or appropriate more than three decades into democracy?".

The third informant thought affirmative action was both constructive and necessary. Research findings suggest that younger APs[382] were less inclined to have a particular opinion on B-BBEE. Many considered it to be constructive or necessary.[383] While B-BBEE intended to contribute to empowerment and transformation and undoubtedly raised public awareness on transformation and empowerment issues, its impact was complicated by the various structural and systemic issues set out above, and credible data was not available and, therefore, its impact inconclusive. A research initiative into affirmative action's real role in realising participation, leadership, and ownership goals for black^ and female practitioners would be valuable. This is summarised in *Table 20*.

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[380] *Refer to ARCHIculture, and Appendix D – questionnaire*.

[381] *The term B-BBEE was sometimes used as a racist synonym for black^: these are not considered in this discussion*.

[382] *For whom B-BBEE was in place throughout their living memory, and thereby doxa*.

[383] *Congruent with the SAIA State of the Profession: Business Benchmarking Survey (2020:13), which identified certification as a business priority for practices 'going forward'*.

Table 20: Social → economic capital exchanges with estimated effect size (eft) and trajectory (trj) by race and gender

6.5		**Eft**	**Trj**	**Notes:** *Reliable data lacking on effect size*
social → economic → social → economic	♀	?	↗	B-BBEE is targeted to benefit women, but the effect size diminished as APs often exempt/ ignore it
	♂	?	→	B-BBEE is neutral/ negative to men, but participation via the empowerment of others is possible
	black^	?	↗	B-BBEE targeted to benefit black^ APs, but the effect size diminished as APs often exempt/ ignore it
	white	?	→	B-BBEE is neutral/ negative to whites, but participation via the empowerment of others is possible

6.6 Discussion and capital and its flows

The analysis of the dynamics of capital flows and exchanges observed within the architecture profession in South Africa from ~ 2000 to ~2019 presented above built upon the theoretical frameworks established in earlier chapters, particularly focusing on the objective relational fields outlined in chapter four.

Using Bourdieu's insight that there is a system of differences entailing that access, value and exchange potential of capital depended on the social positioning of the actors involved, the type and trajectory of capital accumulation were examined according to how they generally (though not universally or inevitable) would be encountered according to class fractions, emphasising how these differences were shaped by factors such as race, gender, and socio-economic background.

This analysis presents some examples of assets and capital exchanges but is not comprehensive. For example, I have moved from qualifications to jobs and registration categories without considering the role of acquisition of knowledge, know-how and skills required to obtain a degree. As discussed in previous sections,[384] the ability to progress and adjust would appear to be affected by gender, race, socioeconomic background, and first-generation students. A sense was gained in this study on the trajectory and effect sizes at a very high level, but more clarity would be useful. It is a significant area of interest since attrition levels at ALS are so high, and therefore, further study is recommended. The remaining items, not analysed during this thesis but identified as critical in the conversion of capitals for the ultimate goal of actualising architecture, are set out in *Figure 81*. A table was presented summarising each frame analysed in this chapter. These have been consolidated with further details on the combination of frames.[385]

[384] *Notably in 3.3.1 Student attrition, retention and transformation on page 67.*

[385] *See Appendix F – capital flows summary.*

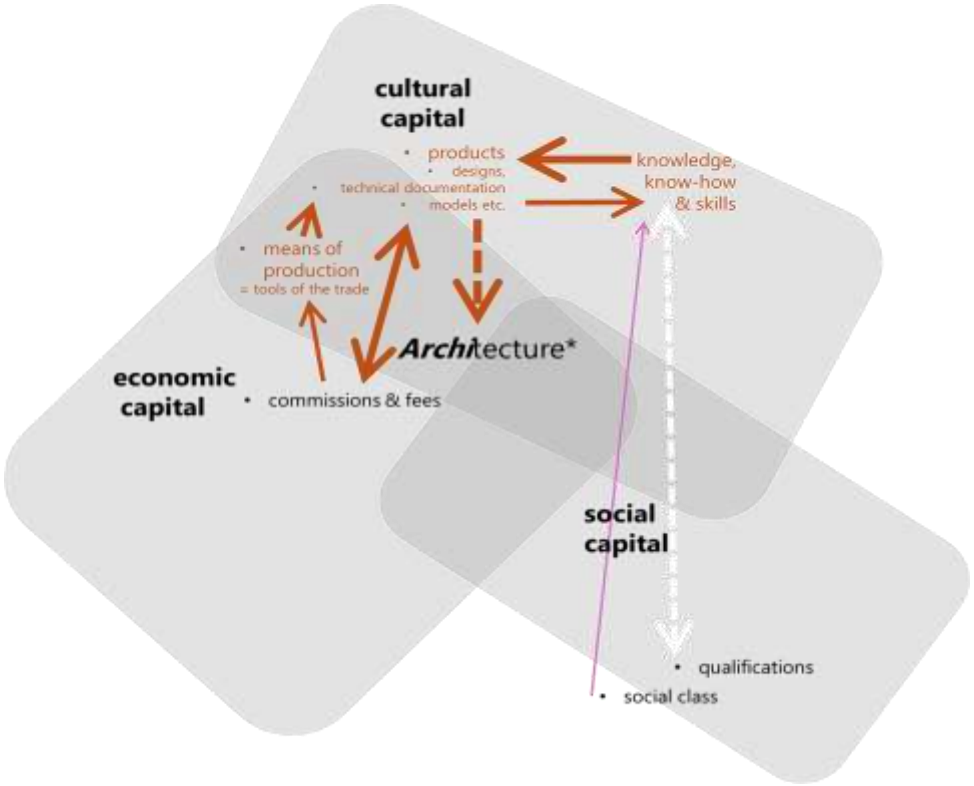


Figure 81: Capital flows and assets for further study

6.7 Key Findings of Part 2

Part 2 confirmed the existence of a retention-transformation nexus. It analysed dynamics in and around the profession, investigated the personal journeys of those placed and misplaced in the profession, and examined some of the capital exchanges as the state, institutions, individuals, and practices negotiated a place in the field.

By examining losses at each inflection point, a robust characterisation was achieved to provide an overall quantitative view and trajectory of the professional development pipeline. From 2000 admissions and graduations for relevant courses increased exponentially, in line with national student growth, and admissions improved significantly from both a gender and race perspective. Nevertheless, by 2017, enrolment of students in Architecture and Environmental Design courses by both gender and especially race still fell short (about 7% and 22%, respectively) of proportionally representing the background population demographics. Moreover, by order of magnitude, an estimated 70% of students enrolled at Architecture and Environmental Design students failed to graduate. Compounding attrition during the academic preparation phase, upon graduation, only 37% of women and 70% of men graduating entered candidacy. Losses disproportionately afflicted women (particularly acutely following graduation) and blacks^ (from enrolment at ALS). It was evident that achieving demographic representation among RPs would take several decades on the current trajectory, producing a retention-transformation nexus and confirming the contention set out in Part 1.

However, this quantitative analysis failed to distinguish between status factions within the profession and to discern the systemic dynamics structuring the field. Using Bourdieu's sociological concepts, I set out to frame the field as an objective system of relations between key actors negotiating cultural, symbolic, social and economic capital stakes. To establish capital, actors were portrayed as setting out to establish and maintain professional boundaries, legitimise roles, improve prestige, and safeguard the profession from unqualified practitioners by attempting, with varying levels of success, to delineate, foreclose, and control their field.

The state played a multifaceted role in the architecture profession, acting as a regulator and a significant market player. It influenced professional practice dynamics through policies and funding mechanisms. As an employer, the state absorbed newly qualified APs into public service roles, often radically altering the career expectations and trajectories relative to APs' preparation. As a procurer, the state enforced stringent procurement regulations, sometimes leading to inefficiencies and corruption. Instruments targeting transformation had limited or mixed impact:

1. NSFAS funding facilitated access to education and transformation, but hardly benefited the architecture field, and likely contributed to limiting access to higher professional categories.
2. B-BBEE aimed to empower historically disadvantaged groups but faced challenges in acceptance, in application and in credible recording and reporting, leading to uncertainty on impacts.

Although Act 44 made crucial inclusive provisions and introduced a few structural innovations, in some ways, it was merely a symbolic rebirth, reproducing the mechanisms which had gradually come to characterise the profession of the previous century. Legislation opened the opportunity to access the field by recognising more professional categories and access routes, and increasing scrutiny to demographically transform. This was countered by a hysteresis effect, which favoured reproduction of previously dominant habitus and field. Thus, professional boundaries were challenged and renegotiated:

1. Conscious and unconscious bias and self-interest endured, likely led to gatekeeping at some ALS and VAs,
2. Efforts at restriction of work, compulsory registration, and restriction of title were only partially successful,
3. The re-delineation of work through the IdoW was delayed and thwarted,
4. Dependencies, economics and a failure to add markets in the formal sector led to stagnation of building works, and increased competition, and
5. A thriving industry of alternative practises operating outside the 'legitimated' field gained traction, oftentimes successfully outcompeting APs for market share, contributing to fragmentation of the field.

Among the state's innovations to enhance transformation in the post-democratic era, was the introduction of new degree structures and the empowerment of new institutions, such as Universities of Technology to deliver these. This thesis did not aim to differentiate between the 'new' and 'old' qualifications and institutions. However, the research revealed that graduates from many of 'new' institutions, newly charged with producing professionals, were often perceived as a 'problem' by extant APs and ALS. This issue stemmed from a profession that, influenced by doxa, tended to be traditionalist, biased and elitist, often failing to engage with the changing landscape of the profession.

This blind spot prevented many in the profession from seeing or accepting emerging perspectives. When the profession considered transformation, it was often through the lens of illlusio - the ingrained sense of what is at stake within the field, which compelled those already in it to unconsciously and reflexively uphold the status quo, driven by self-preservation. Consequently, there was a lack of a systematic or unified approach to conceding the need for transformation, as the field's collective investment in its guise-of-old resisted genuine change. Nevertheless, with increasing pressure for the profession to introspect and transform, many institutional reforms were put in place and gradually gained wider acceptance.

APs generally conveyed their inalienable passion for the field and enthusiasm for their craft while lamenting a lack of appreciation in broader society. The majority expressed a sense of engagement and fulfilment, a strong sense of identification as an architecture professional, and allegiance to the profession. Yet, they often acknowledged considerable struggle, frustration, anger, and, occasionally, hopelessness in their personal journeys. The following emerged as prominent themes contributing directly and indirectly to the nexus:

1. A significant minority of participants expressed fatigue towards the transformation agenda due to a variety of perceptions from illusio:
    a. The transformation agenda was perceived as beyond the individual APs' or VAs' capacity to influence or address.
    b. The agenda was viewed as anachronistic reflected in statements such as, "Is B-BBEE still necessary more than three decades into democracy?"
    c. Some perceived the government or regulator's prioritisation of the agenda as single-minded and misaligned with the profession's talents, interests, and challenges.
    d. Some APs regarded the agenda as exaggerated or non-existent.
2. Over-work and exploitation were a persistent part of the habitus.
3. Aggressive competition, fee-discounting and undervaluation in the marketplace undercut financial viability and drove poor compensation and attrition.
4. The ability to convert symbolic capital into economic capital showed minimal change from 2000 to 2019. Despite slight increases in remuneration for some categories, overall salaries remained largely stagnant. The trajectory for remuneration and job title advancement was generally stable, with little evidence of change in economic conditions over two decades.
5. The public's understanding of the profession's value and its contributions to society was lacking.
6. Mentorship quality and availability varied significantly and with over 40% of APs being solo practitioners, limited mentorship opportunities presented. The trajectory of accessible mentorship was downward, despite increasing graduate numbers, creating barriers for black^ and women graduates in transitioning to professional registration and contributing to systemic inequalities.
7. Prejudice and discrimination in the workplace were experienced by nearly all APs at some point in their professional journeys. These were most acutely felt for age and by individuals identifying as black^ or ◇.
8. The fast-changing nature of the world and tools and technologies raised questions about what the role of the future APs might be and what aptitudes, competencies, and skills would be relevant to these new roles or foci.

9. Access to higher-status qualifications and professional categories was crucial for economic advancement, yet disparities persisted, particularly affecting black^ and female practitioners due to limited access to postgraduate opportunities.

The competitive landscape was marked by intense pressure on fees and project costs, leading to a culture of discounting that undermined the economic viability of practices and raised concerns about the quality of architectural services. Many of the participant responses reflected the current depressed macroeconomic conditions, citing a daily struggle to find employment, compete effectively for commissions, and simply making ends meet. This environment prompted fears of a potential implosion within the profession, as the combination of low remuneration, high attrition rates, and a lack of sustainable work opportunities threatened the long-term stability and growth of the architecture profession in South Africa. Concerns on the viability, status, identity and credibility of the profession have been raised throughout its history and across geographies and continue, as struggles to create a profession of distinction competes with struggles to be relevant.

PART 3

Part 3 gathers the study insights and speculates on their implications for the profession. It aims to propose pathways for a more inclusive and responsive architecture profession that reflects the diverse interests of contemporary South African society.

There is an appalling lack of appreciation and understanding, even in the highest governmental circles, of the work of the architect and his function of "master mason" of our environment. It is time that the Institute as a whole emerged from its shell of professional reticence and presented the real story to the people. A man who has undertaken a professional training of at least five years' duration must have something positive to give to the community and it is that which the public as a whole ought to know. By word and deed this story must be told. Of what avail is the architects' intensive and costly training if his role in society is to be determined by misconception — indeed, complete ignorance — on the part of the very persons he seeks to serve?

(Howie, 1947:218)

7 PROSPECTS FOR TRANSFORMATIVE IMPACT

Chapter seven proposes initiatives with potential for enhancing retention and minimising attrition. It summarises the research process detailed in Parts 1 and 2. It benchmarks the architecture profession against other South African professional sectors, attempts to glean lessons, and speculates on potential actions to address the issues identified in the research.

7.1 Summary of Research Process

The research presented above in Part 1 and Part 2 of this thesis was predicated on the central argument that attrition was a significant feature in the South African architecture profession between 2000 and 2019, with disproportionate impacts on women and black^ professionals. This issue was framed within the retention-transformation nexus. This concept linked the profession's demographic challenges to broader societal efforts for transformation, which had become increasingly important to the state, professional bodies, and practitioners. The costs of producing graduates who later exit the profession were presented as a rationale for examining the factors contributing to attrition and retention.

Bourdieu's theoretical framework offered a sociological lens for exploring this dynamic, with cultural capital reflecting a pursuit of meaningful work, specifically focussed on the manifestation of Architecture, economic capital, associated with material resources for subsistence and surplus for professionals and the profession, and social capital encompassing prestige and freedom from discrimination. Symbolic capital was placed at the model periphery (per Bourdieu, a misrecognition) to account for the role of awards and recognition in capital formation. These forms of capital were used to develop a model that mapped out how individuals typically encountered capital relevant to the profession, positing that progressive accumulation of these capitals would attract talent and encourage retention in the field and that this, combined with equitable access would lead to diverse participation and transformation.

A pragmatic mixed-methods research design was adopted, integrating quantitative data with qualitative insights to gain a firm grasp on the issues at play. The initial quantitative analysis of publicly available data, such as the SACAP annual reports, revealed patterns of underrepresentation and fluctuations in professional registrations. However, this quantitative approach alone could not fully explain the underlying social dynamics, necessitating a qualitative investigation into the lived experiences of architecture professionals. This allowed for an exploration of the structural and affective dimensions of the profession, particularly related to how individual career trajectories were influenced by race and gender. Aligning with international literature, the research pointed to a multiplicity of interrelated factors, with some wicked characteristics.[386]

[386] *See Attrition as 'Wicked' on page 88.*

Until this point, the analysis has been almost exclusively backwards-looking, considering what had already transpired in South Africa's architecture profession, placing it in a context with current literature and trying to discern structures and field dynamics and how they came to be in place. Before speculating on how these insights might inform recommendations to stakeholders on strategies to consider for reducing attrition and enhancing retention and transformation in the field, I review a sample of (arguably) comparable South African professions to discern lessons, best practices, and potential solutions for appropriation into the architectural field.

7.2 Benchmarking and Learning Lessons

From the literature reviewed, it was evident that demographic representation is a concern faced by architecture professionals from various jurisdictions and other professions.[387] Literature was surveyed, and key experts were engaged in benchmarking the architecture profession's performance relative to BEP, consulting engineering, law, and the health science and medical professions of South Africa to discern lessons and best practices.

7.2.1 'Other' built environment professionals

A comparison of the registration demographics of South Africa's BEP (set out in *Table 21*) shows that none of the constituent professional councils' registration numbers reflect the population demographics from a race or gender perspective.

Table 21: Comparative demographic representation of registered built environment professionals (source: CBE, 2019)

	ECSA		SACAP		SACLAP		SACPVP		SACQSP		SACPCMP	
	♂	♀	♂	♀	♂	♀	♂	♀	♂	♀	♂	♀
black^	25%	5%	26%	4%	7%	2%	25%	10%	20%	11%	34%	4%
white	68%	2%	50%	20%	50%	41%	53%	11%	58%	12%	60%	2%

The South African Council for the Landscaping Architectural Profession (SACLAP) is considered an outlier since it is the most transformed among the built environment professions from a gender perspective (43% women). However, it is also least transformed from a race perspective (nine per cent black^). At the other extreme is the SACPCMP which has the highest black registration (38%) and lowest overall female representation (six per cent) (CBE, 2019).

The BEP comparison illustrates a high degree of variability between BEP councils. SACAP performed comparably with its BEP peers, with a poor performance generally, especially regarding black^ female registrants. These findings indicate that, while progress has been demonstrated, it has not yet been achieved across multiple demographic categories simultaneously by any BEPs.

[387] *See 3.3 Current Perspectives on Retention, Attrition, and Transformation on page 67.*

7.2.2 Consulting engineering

Like the architecture profession, economic capital accumulation is also thwarted in the engineering sector. Working at risk and fee discounting have also become rampant in South Africa's engineering fraternity and are studied by academics (Okonkwo & Wium, 2018). The South African engineering field has performed assessments of required numbers for the field as a whole (Lawless, 2005), for the public sector (Lawless, 2007), and for the region (Southern African Development Community, 2018). These reports note high attrition rates, highlighting that many civil engineering professionals were leaving the field in the early 2000s due to various factors, including early retirements, emigration, and transitions to other sectors (Lawless, 2005:248). The loss of experienced professionals was particularly pronounced between 1995 and 2005, with leavers citing inadequate remuneration, limited career development opportunities, and poor management practices as key reasons for their departure (Lawless, 2005:228).

In the early part of the 21st century, there was a significant outflow of experienced civil engineering professionals from local government to the private sector, primarily due to inadequate working conditions and non-competitive salaries, leading to a critical shortage of skilled engineers in municipalities (Lawless, 2007:105). Bonnet (2009:1) postulates that a 'latent technology drag' (where vacancies in the industry are either not filled or are filled by inadequately skilled individuals) leads to a decline in the competency base of industry and commerce, ultimately impacting economic growth and contributing to attrition. Lawless believes that engineers who left the field due to poor economic conditions in the early 2000s returned to the industry (private sector) and sometimes the country when the 'money was right' (personal communication, 2024). However~

> *If there is not enough work for graduates to be able to gain workplace experience in the years after graduation, they will find something else to do and will never enter the industry as 10 years later, employers are more likely to favour recent graduates than someone who graduated 10 years ago and has been working as a pump attendant since. Therefore many are lost when industry is quiet and there are frankly too many graduates to absorb.*
>
> (Lawless, 2024)

The "Needs and Numbers" reports appealed for a review of employment equity targets in the state's technical departments, noting that the shortage of experienced black and female engineers calls for a focus on retention strategies rather than simply reducing the number of existing staff (Lawless, 2007:105). Building on developmental priorities, a need for public sector employers to retain knowledgeable staff to shape policy and guide development effectively is identified (Lawless, 2007:48), and retention of experienced professionals, particularly senior engineers, was identified as crucial for mentoring younger staff and ensuring the transfer of essential skills in public sector (Lawless, 2007: 217). An argument was tendered that employment equity targets should be based on the actual demographic profile of civil engineering professionals rather than ideological targets that could undermine capacity (Lawless 2007:364).

According to Lawless, salaries within the public sector have consistently shown improvement due to the above-average annual increments and are presently considered relatively high (2024). Nonetheless, the challenge of attracting seasoned professional engineers to the public sector at this juncture is not attributable to remuneration but rather to the prevailing work environment. Lawless finds that, although the professional in public service is held accountable for their actions, decisions made by politicians, supply chain personnel, human resources, and financial departments often prioritise their individual interests, thereby placing the onus of responsibility on the accountable

individual for appointments and projects that do not align with the best interests of their departments and are frequently destined for failure. Mirroring findings in the architecture field,[388] engineers anticipate the opportunity to exercise their professional judgment in decision-making; however, this autonomy has been entirely usurped from engineers, leading Lawless to question why they would willingly expose themselves to such circumstances in the public sector and bear the repercussions of project failures that are not of their own making.

In his presentation to the CBE, Motebele Moshodi Pr. Eng (APP) attributed colleagues leaving public sector employment to the following factors:

- *Low salaries for technicians and technologists*
- *Work allocation in terms of complexity, with perceived bias in terms of gender and race*
- *Being assigned work outside the scope of the job (specifically administration and procurement)*
- *Job security concerns, particularly for those on five-year contracts*
- *Lack of CPD opportunities, analysis software and equipment*
- *A constant need to justify work*
- *Juniorisation and a lack of responsibility*
- *Work culture*
- *Department of Water and Sanitation perceived as too challenging for technical people*
- *Emigration, driven by a perception of better work conditions overseas*

(Moshodi, 2019:15)

In response to the high attrition rates, Lawless' reports emphasise the importance of retention strategies (2005, 2007). The field advocates for a comprehensive approach to staff development, which includes creating a supportive work environment that fosters communication, flexibility, and recognition of achievements (Lawless, 2005:165). The findings suggest that organisations must invest in understanding the needs of their employees, provide opportunities for professional growth to mitigate turnover (Lawless, 2005:228), and invest more in graduate training and career path development (Lawless, 2024).

Salaries and an enabling work environment are also identified as critical factors in retention strategies (Lawless, 2007:48). The "*Numbers and Needs*" reports acknowledge the importance of diversifying the civil engineering workforce, particularly regarding racial and gender representation (Lawless, 2005:27; Lawless, 2007:390). Lawless' reports call for sustained efforts to transform the civil engineering profession to reflect the country's demographics (Lawless, 2005:261) whilst setting realistic goals (Lawless, 2007:371). They suggest initiatives to enhance the participation of black professionals and women in the field, noting that while progress has been made, the pace of transformation remains inconsistent and disproportionate (Lawless, 2005:249).

Ijagbemi and Kanakana et al. (2017) discuss attrition among women engineering graduates, noting that ±70% do not return to their jobs after maternity leave, due, among other factors, to a hostile and unfriendly workplace climate, lack of flexibility in work arrangements, and cultural issues that affect women's ability to balance work and family responsibilities (2017:6). Ijagbemi and Kanakana et al. call for systemic changes to promote gender parity in engineering. Their analysis suggests that educational

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[388] *See The state as employer on page 137.*

institutions and professional bodies should actively combat stereotypes and promote engineering as a viable career option for women. To improve retention, they recommend creating a more women-friendly work environment, for example, by providing on-site childcare facilities, flexible work options (such as telecommuting), and recognising the contributions of women in engineering (Ijagbemi & Kanakana et al., 2017:6). They advocate for more regular training and staff development programs, and the establishment of career advancement centres and mentorship programs suggested to support women in navigating their careers and addressing gender-related challenges (Ijagbemi & Kanakana et al., 2017:9-10). Lawless observes that now (2024), the composition of new graduates largely mirrors that of South Africa's population, suggesting that the figures for racial representation within the engineering industry may align with these demographics around the years 2030 to 2035. However, the representation of females has not yet reached the anticipated 50% threshold for either universities or universities of technology, indicating that the timeline for achieving gender parity may take longer, possibly till after 2040.

7.2.3 Law

Based on Godfrey's study, the law profession posted exceptional performance in translation rates of 92% from graduation into articles and 82% admission as attorneys between 2000 and 2006 (Klaaren, 2020:538). However, Klaaren notes (personal interview, 13 August 2024) that this situation fundamentally changed over the ensuing years with institutional reforms such as the introduction of a state regulatory body and degree restructuring. Until the enactment of the Legal Practice Act 28 (Republic of South Africa, 2014), South Africa's law profession was self-regulated via two systems of professional responsibility: one for lawyers practising as advocates and one for those practising as attorneys (Klaaren, forthcoming). The Legal Practice Council, established in 2018, seeks to "set norms and standards, to provide for the admission and enrolment of legal practitioners and to regulate the professional conduct of legal practitioners to ensure accountability" under state auspices. The preamble to the Act 28 (Republic of South Africa, 2014)[389] The report specifically notes that "the legal profession is not broadly representative of the demographics of South Africa" and explicitly sets about remedying this by removing, inter alia, "artificial barriers for entry into the legal profession."

The second institutional reform was the introduction of the four-year Bachelor of Laws Legum Baccalaureus (LLB) degree. Matthews and Samaradiwakera-Wijesundara posit that though this was intended to make legal education more accessible, this led to high attrition rates, particularly among those from marginalised backgrounds, who lacked foundational skills necessary to succeed or provided insufficient preparation for the profession (2018:573-574). This inadvertent reinforcement of existing inequalities and stereotypes led these to advocate for a need for further structural change in legal education itself (Matthews & Samaradiwakera-Wijesundara, 2018:573-574). Arguing against a quota-based approach to transformation in the legal profession, Matthews and Samaradiwakera-Wijesundara made a case for "changing the mindsets of its members" and "introducing a range of legislative interventions to achieve substantive transformation that concurrently facilitates both economic growth and redress for past discrimination" to "dismantle the relations of power inherited from apartheid" (Matthews & Samaradiwakera-Wijesundara, 2018:555-556).

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[389] *It is interesting to compare Act 44 in this regard, which written 18 years prior, and widely thought to intend demographic transformation at core, yet makes no explicit mention of it.*

Scholarship on South Africa's legal profession has illuminated various issues surrounding law student and professional attrition, retention and transformation, with a tendency to focus on gender. The overall attrition rate for law students from their first year of LLB registration to graduation stands at over 50% (Manyathi-Jele, 2014). This figure is especially concerning for black^ students, who experienced an attrition rate of 68% during the initial phase of their studies. In the subsequent phase, while the attrition rate decreased to 18% for those completing an LLB degree, specific data for black^ students remains elusive due to insufficient information (Manyathi-Jele, 2014:71). As of 2017, women represented a majority (57%) of candidate attorneys (Klaaren, 2020:540). Although there has been progress in the number of women entering the profession, significant barriers persist, particularly regarding advancement and representation in senior positions. A 2014 study by the Centre for Applied Legal Studies (CALS) on the Gauteng judiciary revealed moderate demographic transformation in the profession since the advent of democracy (Manyathi-Jele, 2014; Klaaren, 2020:538-540). For instance, as of 2014, 64% of practising attorneys were white, and 63% were male, with the representation of black^ women in senior roles being low, with no black women holding positions as managing partners or chief executives (Manyathi-Jele, 2014:30; Klaaren, 2020:538-540; Meyer, 2024). Although there is diverse representation among junior professionals, senior roles, including senior partners in law firms, remain significantly white and male and senior members of the judiciary remain male (Matthews & Samaradiwakera-Wijesundara, 2018:554).

Research indicates that women, particularly black^ women, in South Africa's legal profession encounter a multitude of unique barriers that hinder their career progression. The legal profession's job scarcity often pushes talented young lawyers into the corporate sector, where offers are more competitive (Manyathi-Jele, 2014:12). The field remains predominantly male and white, limiting networking opportunities for black women, which is crucial for navigating legal culture (Manyathi-Jele, 2014:12). The lack of mentorship for black women hinders their professional growth, as white male juniors typically receive better training and client exposure (Manyathi-Jele, 2014:56). Cultural alienation and historical stereotypes further marginalise black female lawyers, leading to biases about their capabilities (Manyathi-Jele, 2014:12). Once competent, they may face overwhelming workloads, resulting in mistakes scrutinised more harshly than those of their white counterparts (Manyathi-Jele, 2014:50). Many black women also come from economically disadvantaged backgrounds, limiting their access to resources and leading to perceptions of laziness (Manyathi-Jele, 2014:17). Tamlynne Meyer's research highlights how motherhood conflicts with the competitive legal culture, causing career stagnation for women attorneys (2024:11-12). Fewer female lawyers have children compared to their male counterparts, reflecting the challenges of balancing professional and maternal roles (Meyer, 2024:2).[390]

The legal profession is fundamentally a service-oriented field, with a ubiquitous business model structured around the billable hour, which is crucial for both the practice of law and the understanding of its professional culture (Meyer, 2024:2-3). Law firms are driven by the pursuit of capital accumulation, with competition for clients - considered the

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[390] *Learning from this observation, the architectural profession may be able to discern the contribution of society's gendered expectations regarding themes such as nurturing, caring and parenting by distinguishing the number of dependants by gender to assess its contribution to attrition.*

'bread and butter' of the profession - being a central tenet of the profession's ethos (Meyer, 2024:2-3). This business landscape challenges women attempting to navigate the dual demands of motherhood and professional life. Meyer's study reveals that participants reported a decline in performance after returning from maternity leave, as they struggled to balance the rigorous demands of their professional roles with family responsibilities. Women who opted for flexible work arrangements often found themselves relegated to lesser roles that did not fully utilise their skills. Returning to work post-maternity leave was particularly challenging, with many feeling pressured to demonstrate their commitment to their careers (Meyer, 2024:11-12). For more senior positions in the field, such as advocates, women may face a treble cost of discontinued earning, lag in earning,[391] and continuing costs. Key informant Sarah Saunders is a mid-rank junior advocate with 15 years of experience at the bar (20 August 2024).

On taking maternity leave, Saunders' membership fees of ~R 2,600 to the Johannesburg Society of Advocates would be waived. Still, the ~R 14,000 and ~R 40,000 monthly expenses for affiliation and rent, respectively, would continue to accrue. Relinquishing her chambers would entail becoming a "door member" of the council, which reduces status and means renegotiating her place "from the back of the queue" on return. Saunders is convinced that this and other hidden costs, which are disproportionately borne by women in law, disincentivise advancement and contribute to high attrition levels observed for senior positions in the law profession despite initiatives such as preferential admission techniques.[392]

To address the challenges women face in practising law, Meyer proposes a cultural shift within the legal profession to better support women in their dual roles as professionals and mothers (Meyer, 2024:11-12). She advocates for systemic changes, including revising the professional culture to mitigate hyper-competitiveness, implementing supportive policies for work-life balance, encouraging flexible work arrangements without career penalties, and promoting effective gender equality measures (Meyer, 2024:11-12).

Meyer acknowledges that while cultural change may be difficult, it is both necessary and achievable. Employing Edgar Schein's concept of organisational culture and Bourdieu's concepts to analyse how cultural norms and practises can be transformed through conscious efforts and collective action (Meyer, 2024:4-5), Meyer posits that recognition of how informal processes perpetuate inequality, opportunities present to implement changes that promote gender equality (Meyer, 2024:4-5). Despite robust legal and policy frameworks aimed at promoting gender equality, she emphasises that effective implementation is crucial. Meyer advocates for policies that genuinely support work-life balance and flexible work arrangements without career penalties (Meyer, 2024:11-12). Notably, she notes that women attorneys are not passive recipients of the professional culture. They actively navigate their roles and make decisions regarding motherhood and career. This agency suggests that women can influence change within the profession by advocating for their needs and rights (Meyer, 2024:11-12).

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[391] According to the 97-day rule, there is a lag of 97 days from work completion to fees due. This implies that should work be suspended, there would be income still earned, but on resumption of professional activities a lag of 97 days would apply.

[392] Interviews at the Johannesburg Society of Advocates, for example, are weighted to prefer black^ and women candidates.

7.2.4 Health sciences and medicine

According to Van Der Merwe and Van Zyl et al. (2016), the majority of undergraduate medical students in South Africa are black (39%), followed by white (33%), Indian/Asian (14%), and coloured (13%) students. Females comprise a significant majority at 62%. Research in the fields of health sciences and medicine found that while there has been progress in redressing historical disparities since apartheid, further transformation efforts are needed to achieve professional profiles commensurate with the South African population (Tiwari & Wildschut-February et al., 2021; Khan & Thomas et al., 2013; Louw & Berner et al.,2021; Sodo & Jewett et al., 2023).

A systematic review of factors influencing physicians' choice of the workplace, which included a range of geographical settings, including sub-Saharan Africa, found attrition in the form of the movement of skilled physicians from the public to the private sector. Six major themes influencing physicians' workplace choices were identified: financial incentives, career development, infrastructure, professional work environment, workload, and autonomy, among which financial incentives were highest priority (El Koussa & Atun et al., 2016). Research on women graduates from a Cape Town medical school found uncomfortable working conditions (long working hours, lack of support for part-time work, traditional perceptions of women's roles, and multiple role expectations within the workplace) and societal pressures, such as the expectation to have children, were significant contributors to attrition (Wildschut & Gouws, 2013:5).

Attrition from the medical field is also in the form of emigration, in line with a broader global context of physician migration from low- and middle-income countries to higher-income countries (Tiwari & Wildschut-February et al., 2021; El Koussa & Atun et al., 2016). The research found that healthcare professional emigration from South Africa was driven by unsatisfactory working conditions, concerns about crime and safety, and family matters (George & Blaauw et al., 2019:4; Crush & Pendleton, 2011).

Preparing and attracting talent from elsewhere has also been a factor in healthcare. The Mandela-Castro agreement established a programme with Cuba in about 2000 to train South African doctors in Cuba, assist with transformation, and address underserved and rural populations (Squires & Colville et al., 2020). Larkins and Johnston et al. (2018) found better retention among medical students from the lowest socio-economic quintiles and that these students more commonly indicated an intention to practise in rural settings or with underserved populations. Medical students from urban backgrounds and with lower parental income were less likely to indicate an intention to work abroad. In addition to initiatives to retain local talent, the medical field has tried attracting regional talent from outside South African borders.

In its postgraduate surgical training program, the University of Cape Town targets non-South African surgical trainees from Sub-Saharan Africa. This initiative aims to address the shortage of surgeons in the region, where many countries need their own speciality training programs. The program has achieved a high retention rate of 96%, with 80% of trainees returning to their countries of origin[393] after completing their training. These graduates primarily work in public and academic sectors, contributing to the local surgical workforce and enhancing training opportunities for future surgeons (Naidu & Fagan et al., 2020:1-5).

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[393] *This implies the training programme had a net gain for South Africa.*

Key elements of the surgeon training program include integrating didactic and clinical training through the same educators and fostering a supportive learning environment. However, challenges such as financial strain and underrepresentation of female trainees persist, suggesting the need to actively recruit female trainees (Naidu & Fagan et al., 2020:1-5). The study identifies the importance of appropriate role models and the need for workplace structures that accommodate family responsibilities as crucial for retaining women doctors. It also highlights recommendations for making the profession more balance-friendly (Wildschut & Gouws, 2013:5). Wildschut and Gouws illustrate how professional socialisation processes contribute to the gendering of the medical profession, with a focus on how certain values and norms are characterised as important, such as the expectation to work long hours (Wildschut & Gouws, 2013:16). However, they also noted the ongoing transformation of gender roles within the medical profession, where women doctors are actively involved in reconstructing their identities and challenging traditional notions of what it means to be a 'good doctor' (2013:15). Their study concludes with optimism for the future of women in medicine, suggesting that as women continue to assert their roles and challenge existing norms, there is potential for more positive discourses surrounding femininities in the medical profession (Wildschut & Gouws, 2013:15).

There have been intermittent issues with unemployed medical graduates in South Africa since at least 2016 (Badroodien, 9 August 2024). The issue stems from a combination of budgetary constraints and the structured requirements for medical graduates in the country for internship and community service (Phaahla, 5 February 2024). Since 1998, medical graduates have been required to complete two years of internship and one year of community service before they can practise independently (National Department of Health, 1998; Health Professions Council of South Africa, 2018). However, the allocation of positions for these essential stages has been insufficient, leaving many qualified doctors in limbo (Gauteng News, 2024).[394]

7.2.5 Lessons and best practises

The preceding research shows that transformation is acknowledged as a priority in consulting engineering, law and health sciences and medical professions in South Africa. Investment costs for professional 'production' are similarly high. Although the structural arrangements differ between these sectors, and some of the details related to challenges, it is evident that the professions are all grappling with retention and transformation and finding challenges in retention generally, and among blacks^ and women, in particular. Although the architecture profession was comparable to its BEP peers,[395]) it performed poorly compared to other professional sectors as set out in *Table 22*. The architecture profession had the lowest representation of black^ females at 4 per cent compared with 13% in law and medicine, similar to black^ male participation in the law profession, with medicine performing significantly better. At 43%, black^ male involvement in medicine is still significantly short of the demographic representation of 92% (Statista, 2023).

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[394] *As of January 2023, the trade union submitted a list of 825 unemployed medical doctors. Out of the 825 doctors on the list, 694 had completed their community service before 2024 began, most of whom applied for medical officer posts in the various provinces.*

[395] *See 7.2.1 'Other' built environment professionals on page 236.*

Table 22: Comparative demographic representation of other registered South African professionals

	black^ ♀	black^ ♂	white ♂	white ♀	data source
law	13%	23%	40%	24%	(CALS, 2014)
medicine	13%	43%	27%	18%	(Tiwari & Wildschut-February et al., 2021)
architecture	4%	26%	50%	20%	(CBE, 2019)

However, its relative success may relate more closely to its more representative student demographic profile than any strategic intervention. It can be concluded that no profession is exemplary. American scholars pointed out the following~

> *The truth is that architecture has serious, unsolved problems compared with other fields when it comes to supplying on-the-job learning experiences to induct students into the profession on a massive scale. Medicine has teaching hospitals. Beginning teachers work in actual classrooms, supported by school taxes. Law offices are, for the most part, in a better financial position to support young lawyers and pay them living wages. The architecture profession, by contrast, must support a required system of internship prior to licensure in an industry that has neither the financial resources of law or medicine, the stability and public support of teaching, nor a network of locations like hospitals or schools where education and practice can be seamlessly connected.*
>
> (Boyer & Mitgang, 1996)

Although there is an abundance of recommendations contained in the literature on the professions, similar to international literature findings discussed earlier,[396] there was little published literature recording implementation or tracking the effectiveness of such initiatives.

7.3 Classification of Issues into Varietals

As little work had previously been undertaken on the retention-transformation nexus in the architecture profession in South Africa prior to this doctoral undertaking, the research cast a wide scope of interest, resulting in a discursive investigation into the topic. A multitude of issues emerged as important, a few of which became recurrently implicated factors in driving attrition and thwarting transformation, according to key experts, as well as primary and document analysis. Despite the generous range of aspects visited in this study, it is nearly inevitable that there are 'missing' levers or causes that could be brought to bear to understand the nexus. In conceding that the problem of the retention-transformation nexus could be wicked,[397] its resolution would be challenging, necessitating a multifaceted approach.

As little work had been located on the retention-transformation nexus in the architecture profession in South Africa prior to this, the undertaking has been discursive in character. To make sense of speculations on recommendations, I thought it helpful to classify interventions, to distinguish between things easily achievable and those more difficult, while supposing that not everything may be required but that implementing only a few

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[396] *See 3.3.6 Limits and successes of on page 87.*

[397] *Refer to Attrition as 'Wicked' on page 88.*

would likely be ineffectual. Moreover, some intervention strategies could be counterproductive, especially when combined. I considered four categories (or varietals) of intervention:

1. The first varietal of issues was a combination of those which matter, often significantly, but were outside the scope of this study; were outside the presumed influence of the architecture profession or were considered likely to be ineffectual or even counterproductive in providing 'solutions' to the nexus. These were identified and not discussed further.
2. The second varietal of issues were those which ought to be straightforward and uncontroversial to introduce (low cost, minimal risk, with an identifiable and motivated actor to implement) and these were positioned as a set of immediate recommendations.
3. The third varietal of issues were those items which represented recurrent themes, and which could potentially be addressed but with a level of controversy, complexity, or contradiction to confound 'solutions', generally because of weak/misaligned incentives, illusio or doxa.
4. The fourth varietal of issues identified for further research denoted for further research.

7.3.1 Varietal 1: Out of scope or out of reach

Varietal 1 issues were identified as significant macro-level structural issues of salience to the nexus, but out of scope or focus of the study, or outside the reasonable sphere of influence of AP, and therefore set aside. These were the economy, patrons, and the public sector.

The economy

Out of scope - Analysis presented throughout this thesis placed broad macroeconomic trajectories and histories at the centre of understanding the current state of affairs and as critical in addressing the nexus. The economy is beyond the reasonable influence of the profession. Nevertheless, the profession may be able to respond by becoming more resilient and:

- adapting to changing market conditions,
- diversifying their service offerings and engagement tactics,
- finding innovative ways of making construction and services more accessible,
- maintaining social and physical mobility,[398]
- establishing a benevolent trust to support loyal professionals who encounter financial stress,
- responding to opportunities in sectors less affected by economic downturns and
- improving relevance to regional and international markets.

Patrons

Out of focus - Clients and patrons were not well-considered in the research design and were not prominently featured in the literature reviewed. The survey instrument did not centre the role of clients in the field. However, a significant number of respondents

[398] *Historically, architects transcended class barriers through social and physical mobility, although their social status varied by background and affiliation (Kostoff,1985:65).*

(>20%) referenced clients in their responses. This is, therefore, a critical blind spot in the study's conception and one deserving further study and attention.

A fundamental assertion of this work is that successful translation of ideas into form is contingent on, among others, a conviction in (at least a part of) society - that is patrons, investors and clients - that these ventures are needed, desired or worthwhile.[399] I further contend that "Even more fickle than need-driven demand, is the impetus to build based on discretion", implying that improved marketing could stimulate desire and grow markets. This market-orientated view underpins the part of the analysis, which held that APs may be able to help themselves by improving their market share, by articulating a clear value proposition and improving visibility. [400] This is likely true only if other fundamental transformations and enablers are addressed. Investors in the built environment should also be demographically diverse and engaged so that the interests of all stakeholders of the built environment are represented as far as practically possible. Although not fully studied here, and though this may be easing, the persistence of the formerly dominant's greater share of economic capital, which is required for private investment, indicates this is not yet the case. With the public sector investment in infrastructure waning, the interests of patrons may be skewed to benefit white male capital, unless patrons, too, transform.

To generate interest in becoming sponsors, investors and engaged citizens in the built environment, the critical issue of underlying interest in and appreciation of architecture and its professionals is raised. I speculate that the pre-democratic tabula rasa[401] has enduringly affected a 'pipeline' of potential clients and patrons.

The public sector

Out of influence - The thesis analysis characterised the public sector as having multiple roles to play in the built environment with a general approach to implementing its mandate through a project management and consultancy relationship. Radical transformation could see the state develop in-house capacity and attract, grow and retain professionals. This would require political will, strong leadership, adequate and sustained investment, organisational change management and more, but it could be a means to substantively transform both the sector and architecture. Given its extensive portfolio, the state sector might consider the limitations of its current *modus operandi* and opportunities and benefits that could accrue were they to develop the capability to execute its projects in-house, including professionalisation of the public service, improved infrastructure (and indirect benefits of improved service delivery and employment) and a more direct hand in challenging the apartheid spatial legacies (Financial and Fiscal Commission, 2018; Department of Public Service and Administration, 17 July 2023). Stevens (1998:179-182) suggested that architectural practitioners in public service, such as in France, can enjoy more social and symbolic capital than their counterparts serving private interests. This is potentially an important avenue for transformative potential worthy of further study and investigation.

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[399] *See 1.2.1 Architecture professionals in society on page 20.*

[400] *See 4.2.4 Alternate discourse and product on page 105.*

[401] *See 3.2.1 Pre-democratic tabula rasa on page 60.*

Beyond the ribbon-cutting

The deteriorating condition of South Africa's infrastructure, including its buildings, has received significant attention in both scholarly and popular media.[402] Its decline has been characterised (de Jager & Wall, 2022), and thought to be wasteful and unnecessary (Kwon & Song et al., 2020). It arises from mismanagement, and neglect. The lack of priority afforded the built environment in contemporary times is not lamented only in South Africa, seemingly part of a larger, global phenomenon in which infrastructure systems increasingly fall into disrepair due to a lack of sustainable long-term planning and other societal priorities.

APs have traditionally valorised the concept and design phases of building lifecycles, participating also in the construction phase to ensure the translation of ideas into form. In contrast, various concepts, such as systems thinking, life cycle perspectives and the circular economy, can be applied to the built environment to frame infrastructure qua resource and impacts (Godfrey & Roman et al., 2021). These alternate framings recognise downstream opportunities inherent in longevity though maintenance, reparation and adaptation rather than sole focus on their initial construction.

These paradigms encourage thinking about infrastructure as systems that can evolve, and be renewed to continuously serve society, rather than things built and left to deteriorate over time. The circular economy paradigm promotes sustainability by focusing on minimising resource waste and maximising the utility of materials over time. It views infrastructure from a lifecycle perspective to encourage long-term sustainability through ongoing maintenance and adaptation rather than linear 'build-to-bash' models.

APs often advocate for sustainability, long-term stewardship, and adaptability, yet their professional involvement is traditionally limited to the initial phases, thereby not necessarily applying their talents optimally to these other lifecycle phases of infrastructure. The profession could orientate such that their efforts are honed to place more value on the ongoing maintenance and evolution of buildings than has historically occurred, redefining their roles, bringing value to the problem of crumbling and failing infrastructure, and embracing more of the responsibility of ensuring that buildings serve both society and the environment long after their initial construction, This might leveraging their knowledge to add value to the built environment and raise its visibility within society.

7.3.2 Varietal 2: Straightforward and uncontroversial

At the tap

From a quantitative perspective, a necessary condition for transformation is a generosity of opportunity and equal participation from the outset. ALS admissions data shows that to date (2024), the number of black^ aspirants enrolled at ALS has not been demographically representative, and moreover, the principle has not been universally internalised.

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[402] *For example, Emuze & van Eeden et al., 2017; Okunola, 2021; Timeslive, 7 May 2024; Commission of Inquiry into Usindiso Building, 2024*.

Career path counselling and options guidance
Given the research findings presented earlier, career counselling in the later stages of APs studies can be strengthened.[403]

AP graduates and unemployment
Flowing from findings of a lack of qualitative data on architecture graduates and unemployment, graduate tracer studies should be undertaken to identify and replicate success factors.[404]

Exercise of care with names
This research established that the titles and entitlements associated with professional designations are not readily understood by the public, resulting in confusion.[405] While Act 44 grants the SACAP the authority to determine abbreviations and acronyms, as well as to introduce new categories, the regulator could become more attuned to potential public misperceptions and exercise due diligence in considering changes. For instance, SACAP could consult the broader architectural community and marketing experts when considering changes to its nomenclature. Furthermore, it should strive for greater consistency in its terminology and clarity in its communications with the public and the profession.

Evaluating and enhancing the effectiveness of special instruments
As the published data on RPL, LSD, special consent and other special instrument often do not include demographic details,[406] their effectiveness as catalysts of professional advancement and transformation, and quality of service provided/ outcomes achieved under these concessions is currently indeterminate and worthy of recording and reporting. The distinction between the two types of RPL (SACAP and ALS administered) would be useful in recording and reporting. According to key informant Pepeta (11 June 2024), RPL, LSD and Special Consent success can be achieved by implementing the following:

- Effective awareness programmes
- Simplified application process
- Support for potential candidates (especially blacks^ and women) who may not have resources such as time and money to package their projects to acceptable standards of portfolios of evidence.

These ideas can be presented to focus groups to inform a collective strategy to enhance participation and to promote implementation success.

7.3.3 Varietal 3: Complex (or even wicked)

Each of the issues identified in this subsection has been identified as key but has some attribute which renders them wicked. Wicked attributes are tabulated in *Table 23*.

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[403] *See 1 → 2 – graduate to candidate on page 123*.

[404] *See 4.5.2 A spectre of unemployment on page 134 and Finding places on page 182, and Social → Cultural Capital on page 217*.

[405] *See 4.3.1 Name-calling on page 111*.

[406] *See 3 → 4 – advancing through the ranks on page 127*.

ARCHIculture

Within the workplace, architecture is frequently described as an intensely focused and inflexible profession, with long working hours - often unpaid - being the norm. This culture, compounded by limited benefits such as pensions and medical aid, risks alienating a diverse range of professionals, particularly those from underrepresented cohorts. The profession's rigidity can be particularly detrimental to younger, female, or black^ practitioners, many of whom face competing demands from family and society and seem more likely to encounter prejudice in the workplace.[407] To foster a more inclusive and balanced culture, fair work guidelines should be drafted, and a supportive workplace culture should be ideated and encouraged throughout the profession.

Professional perception and public engagement

This research indicated that APs often express concerns that broader society misunderstands or undervalues their role and contributions. This lack of recognition extends to their public image, as the profession's contributions are frequently overlooked. Simplifying engagement methods for the public can help bridge this divide, creating pathways for more fruitful interactions between APs and their communities. Relatedly, APs have yet to establish a prominence in both social and mainstream media. Despite notable achievements, the profession remains largely invisible, partly due to a reluctance to engage in marketing and a tendency towards insularity[408] There is also a missed opportunity in design competitions, which could serve as a platform for showcasing emerging talent. Enhancing visibility and credibility in the eyes of the public and within the profession itself is potentially instrumental for achieving social, cultural and economic relevance.[409]

Articulating a compelling value proposition

Amid growing economic inequality and the "no-build" movement, the profession has struggled to articulate its value to society clearly. The profession should define and communicate its contributions, particularly in contexts where construction may seem unattainable or undesirable. Emphasising the "design dividends" that emerge from thoughtful architectural interventions can help demonstrate the long-term benefits of the profession and its products. Drawing on frameworks like RIBA's Social Value Toolkit for Architecture (RIBA, 2020:3), Architexx's RFP Toolkit (2020) and others could help APs advocate for their role in promoting social, cultural, and economic well-being. [410]

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[407] *See 5.3.4 ARCHIculture on page 196.*

[408] *See Portrayal in society and media on page 164.*

[409] *See Design competitions on page 222.*

[410] *This toolkit, "developed to make it simple to demonstrate and evaluate the impact of design on people and communities, outcomes" [in the UK] notes that social value benefits are increasingly factors considered in public policy and procurement (RIBA, 2020:3).*

Table 23: Varietal 3 concerns and their 'wicked' attributes

Concern	Wicked characteristics	'solution'
CONCERN #1: Architecture professionals perceive that their role and contribution are not well understood or valued in society.	Unclear boundaries, multiple stakeholders with differing perspectives, and difficulty in defining solutions definitively.	Simplify methods for public engagement to enhance understanding and appreciation of architecture professionals' roles.
CONCERN #2: Intense and often exploitative workplace culture in architectural practice discourages diverse participation.	Conflicting values, multiple causes, interconnected issues (work-life balance, diversity, exploitation).	Develop a supportive workplace culture within architectural firms to promote inclusivity, diversity, and work-life balance.
CONCERN #3: Architecture professionals are invisible in public and media spheres, limiting recognition and opportunity.	Lack of consensus, difficulty in measuring success, and social and political issues intertwined.	Increase visibility through architectural design competitions and strategic media engagement to celebrate achievements and cultural relevance.
CONCERN #4: Escalating fee discounting and low compensation are driving professionals out of the industry.	Incomplete or contradictory information, variable interpretations, economic issues affecting societal values.	Advocate for fair remuneration practises, potentially through unionising, to ensure sustainable and equitable compensation in architectural practice.
CONCERN #5: Architectural practice is not evolving to meet contemporary societal needs and modalities.	Changing requirements, unclear endpoints, dynamic and shifting goals.	Embrace innovation and adapt to new technologies and specialised roles while preserving core cultural strengths in architectural practice.
CONCERN #6: Failure to articulate a compelling value proposition for architectural design amidst societal shifts.	Uncertainty regarding goals, multiple explanations, and difficulty in determining definitive solutions.	Define and communicate a comprehensive 'design dividend' to highlight the broad benefits of architectural design, thereby promoting interest and investment despite societal challenges.

Fee discounting and economic sustainability
The issues of fee discounting, exacerbated by public sector tender arrangements and the power dynamics of client relationships, have driven down compensation for architectural services to unsustainable levels. This phenomenon is particularly challenging for young professionals, many of whom are forced to leave the field due to financial constraints.[411] Ensuring fair compensation, potentially through unionisation[412] or alternative business models are vital to maintaining the profession's viability and attracting fresh talent.

Adapting to new specialisations and roles
The architecture profession has been slow to adapt to societal shifts and technological advancements. While the rise of specialised roles - such as project management and the integration of AI or BIM - is reshaping the field, institutional structures remain wedded to traditional practices.[413] A more fluid integration of new specialisations and technologies, alongside a reconfiguration of traditional roles, is essential to keeping the profession relevant while preserving its core strengths.

7.3.4 Varietal 4: Areas for further research

The state as player
Apart from transforming from employer of project managers to employer of professionals, enabled and empowered to execute their mandate within government,[414] the state could also improve its engagement with and procurement of external professionals. An interesting example is Vlaams Bouwmeester's 'Open Call' designer selection procedure for collaborative design development for public buildings (Vlaams Bouwmeester, 2024; Le Roux, 2011). This and other models for procuring architectural services should be researched and piloted.

Intersectionality
Intersectionality has not been directly addressed in this thesis, although both from quantitative and qualitative analysis presented, it is abundantly evident that black^ women APs (similar to international experiences) have faced significant barriers to entry and progression within the field. Reimers and April have made an important initial contribution to this scholarship for local APs (2022). However, their recommendations may lack a 'problem owner' and hence be wicked in nature (Brown & Harris et al., 2010:6). Additional research may be helpful in informing implementable action plans.

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[411] *See Competition, viability, and (?) pending implosion on page 144, and State as procurer of professional services on page 138 and Compensation on page 202.*

[412] *Originally, I had dismissed unionisation as unviable in professions generally and creative professions particularly, based on stereotypes generated through and confirmed through Larson's accounts of architects' failure to unionise, despite their unhappiness (1979); and the failure mount collective action in the incident related to Architects Against Apartheid (Brink, 2012). However, the issue was raised multiple times and received enthusiastic support from stakeholders as diverse as a partner in a large practice (Grimsehl, 4 July 2024) to a recently graduated AP (De Bruin, 17 June 2024). Moreover, recent unions have emerged in the United States of America (Architectural Workers United, n.d.) and the United Kingdom (Sultan, 2022). It is, therefore, worth serious consideration.*

[413] *See 3.3.4 Architecture, gender and race on page 79.*

[414] *See Varietal 1: Out of scope or out of reach.*

Size matters

SAIA data seems to indicate that small-size practices with few employees may be most profitable (highest average profit) and most precarious (highest median, highest variance over time) (2020:32-34). My research findings lend credence to other scholarly work which reported a strong, sustained and increasing proclivity for APs to practise solo or in small-size practices (Van Wyk, 2004; Vosloo, 2017:6). Anecdote suggests there are multiple drivers of this phenomenon such as survival, flexibility, greater creative control, and labour protection laws. However, local research investigating this was limited.[415]

Analysis of YOUR JOURNEY in South Africa's architectural profession survey responses indicated that gender and race profiles may tend to differ according to practice size.[416] This warrants confirmation - raising some questions. For example:

- what are the drivers of the popularity of small practices among white practitioners?
- why are medium practices seemingly more accommodating of or attractive to women APs?
- what are the current constraints to the growth of practices from small to medium, and what would be the mechanisms to achieve this?
- if the number of medium-sized practices could be structurally enhanced, could this support a retention-transformation agenda?
- what are the barriers, especially for females and black^ APs, to opening small practices? and
- what would be the methods, prospects and likely consequences of promoting tiny and small practices?

Logic suggests that the prevalence of solo practice and tiny practices is not a conducive condition for newcomers seeking employment or mentorship. This becomes a significant barrier when this is a requirement for legitimation and progression in the field, and with demand for entry-level positions compounded by expanding graduate numbers. This underscores a need to understand drivers and consider measures to support newcomers' developmental requirements through additional means, such as in a reimagined public service,[417] or by stimulating larger practice configurations (for example, tax benefits for youth employment and indemnity from hire/fire laws for candidates).

Scientific studies on policy

There is much debate on the effect of affirmative action policy on BEP, with ostensibly very limited cooperation, data or scientific study on its effect or effectiveness.[418] Administration of this mechanism has associated costs, and it has a demonstrated propensity to be weaponised and divisive, so independent research and ongoing monitoring are warranted.

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[415] *Blau's research (1988) found a complex relationship between practice size and multiple factors such as survival, quality of work, etc.*

[416] *See 5.2.4 Practice form, size, and respondent role within organisations on page 153.*

[417] *See Varietal 1: Out of scope or out of reach.*

[418] *See* 6.5 *Social → Economic Capital on page 228.*

Benchmarking dependants
Research findings indicated a seemingly high proportion of APs having no or few dependants, which may be an indicator of distress in the field. This observation merits benchmarking to ascertain whether this was a global phenomenon, typical of South African professionals across various disciplines, peculiar to architecture professionals, or anomalous. If confirmed, a view that APs are performing worse than their peers in establishing families etc., the root causes should be sought, implications for work/life balance and neurological and mental health should be considered, and remedial actions (if indicated) identified. Such a study should consider the differentiated effects of parenting by gender.

Social networks
This piece did not adequately ventilate the actual and potential roles of VAs and digitally organised pressure and consciousness-raising groups as vehicles to foster capital, which warrants consideration.

Proactively managing work at risk, fee discounting and fee non-payment
Arising from the finding that work-at-risk practices are controversial, a baseline study should be undertaken to systematically canvas the profession on what can and should be done.[419, 420]

Maritz and Robertson have articulated avenues for legal recourse for late or non-payment of fees applicable to all consultants, which include ensuring adequate contractual provisions, charging interest on late payment, suspending services, and taking advantage of contractors' lien and dispute mechanisms (2012). Building on international precedent, they also discuss the effectiveness of various dispute resolution mechanisms, including statutory adjudication, which could help resolve payment disputes more swiftly (Maritz & Robertson, 2012:8). Maritz & Robertson propose a commission be established to investigate the prevalence of errant payments to underpin payment legislation, which should be drafted to protect both contractors and consultants (2012:8). They propose several provisions that such legislation could include, such as the right to regular payments, defined time frames for payment, and the prohibition of 'pay-when-paid' clauses (Maritz & Robertson, 2012:8).

Mentorship support
Although inconclusive, research suggests that the prevalence and the quality (that is, effectiveness) of mentorship can be enhanced by the provision of robust support (to mentors and mentees), mindful matchmaking, consistent application and opportunities for constructive feedback loops.[421] To enrich these preliminary findings, a review of existing mentorship support initiatives is recommended. This will identify a range of workable interventions, implement them, and record outcomes.

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[419] *Such as prohibiting the practice, raising awareness of unintended consequences of the work at risk practise among professionals and students, grading developers, listing work-at-risk (and pro-bono) projects in a publicly accessible forum, publishing guidance on best practices in undertaking work-at-risk, utilising lien, and reformulating work stages (to accommodate this market demand in a more considered and risk-controlling manner).*

[420] *See Work at risk on page 145.*

[421] *See Portal structuration of the field.*

APs in motion: emigration, immigration and nomadic work

Globalisation allows for mobility of skilled professionals and has become a significant global phenomenon, driven by various factors including career opportunities, economic incentives, personal aspirations (Mahroum, 2000; Osaretin & Eddy, 2012) and crime (Bremner, 1998). This leads to both virtual and physical emigration, immigration, impacting both attrition and transformation. This is enabled by technology, which permits hybrid and temporal working arrangements, and reciprocal agreements, such as the Canberra Accord[422] (Canberra Accord on Architectural Education, 2023). It may also be a valuable means to accumulate symbolic capital (Doherty & Dickmann, 2009).
During apartheid, a black^ elite forged relationships with their European and American sympathisers, and African and Soviet bloc allies (Freund, 2014). Increasingly the international community placed cultural, economic and political sanction on South Africa (Manby, 1992). The apartheid government responded by adopting a progressively protectionist stance, characterised by a combination of physical, cultural, and military measures aimed at controlling both internal and external influences as part of its broader strategy to maintain its regime and supress opposition (Bozzoli, 2004). Thus, leading up to the dissolution of apartheid, South Africa became increasingly insular. Physical access, trade and cultural exchange with the region and international community was progressively limited, partisan and deployed for political purposes (Gilbert, 2007). Following democratic elections, borders became open, and censorship was relaxed. Diplomatic efforts were renewed, allowing for travel between countries, free exchange of ideas and new opportunities for trade relations.

This entailed that African architectural practitioners from SADC and beyond were able to travel to South Africa, as was detailed earlier,[423] while, for the first time white professionals could seek business in African countries and around the globe. Subsequently, South Africa's 'brain drain' has become a persistent concern (Meyer & Brown et al., 2000:3; Kaplan & Höppli, 2017). However, SACAP does not routinely collect or publish data on AP emigration or immigration (Personal correspondence, SACAP registrar, 28 September 2021), and StatsSA stopped collecting migration data in 2004 (Kaplan & Höppli, 2017:498). Moreover, the research methodology adopted did not include obtaining primary research from the African Union of Architects, the International Union of Architects (UIA), professional registration bodies and the voluntary associations of neighbouring countries and regions. Therefore, this thesis has been lacking detailed perspective on the regional situatedness and impacts of regional relationships on attrition and transformation.

Therefore, there is a need for research on APs in motion: emigration, immigration and nomadic work. Supporting this, a longitudinal study on APs' student retention, students' intentions to work abroad, whether these intentions are carried out, and links to socioeconomic background factors should be undertaken. If, similar to Larkins and Johnston et al. (2018) on the medical profession, APs from more humble socio-economic backgrounds have a greater propensity to stay, talent recruitment from rural areas and

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[422] In 2017, South Africa became a signatory to the "Canberra Accord on Architectural Education: Recognition of Substantial Equivalence between Accreditation/ Validation Systems in Architectural Education" intended to facilitate the portability of educational credentials (specifically Masters' degrees attained after 2010) between participating countries (Canberra Accord on Architectural Education, 2023; SAIA, 2023).

[423] See 4.4.1 Portal structuration of the field 1 → 2 – graduate to candidate

neighbouring countries could be intensified. This could have implications for the selection of students applying to ALS.[424]

Concepts of pan-Africa situatedness of architecture professionals of the region
Further research could explore the intersection of South Africa's architectural transformation and regional identity by engaging with pan-African bodies, examining how cross-border collaborations within the region reciprocally influenced post-apartheid architectural practice, attrition and transformation.

The role of technology in field and capital
The evolution of technology not only shapes communications, technical processes of design, and documentation production. It also redefines the cultural and social dynamics, which can connect and protect professions (Faulconbridge & Henrikson et al., 2021). Existing studies recognise technological adoption barriers, the role of technology in entrepreneurship and business, and its role in access to global markets (Vosloo, 2022; Vosloo & Vosloo et al., 2017; Young-Pugh, 2005). Larson's work underscores how professions secure monopolistic control over market opportunities and restrict access to specialized knowledge, reinforcing economic supremacy and social inequalities. Conversely, Abbott posits that technology disrupts professional boundaries, necessitating adaptation and redefining areas of expertise. Faulconbridge and Henrikson et al. (2021) emphasise the importance of technology in enabling professionals to forge transnational and cross-sectoral alliances. The South African architecture profession exemplifies these dynamics, where technological advancements like CAD and BIM have reshaped workflows, collaboration, and professional status. However, as noted by Knobel and Ahmed et al., (2021) the uncritical adoption of technology can overlook cultural dimensions and ethical considerations. Theoretically, studying technology's impact on professions can provide insights into balancing innovation with social relevance, ensuring equitable and culturally aligned professional practises.

Technological advancements are often viewed instrumentally, celebrated for their potential to enhance efficiency, collaboration, and innovation. There is a tendency to adopt an uncritical stance towards these developments, potentially obscuring the nuanced impacts of technology on the profession and its sociocultural dynamics. These include ethical considerations, such as equity and access, skills displacement, cultural homogenization and environmental impacts. The impact of technology on sociocultural dynamics appears to be understudied in Africa with a paucity of published literature on professions.[425]

Exploring this lacuna could matter because, by gaining insight into how tools-of-the-trade technologies are not neutral but active agents in shaping the profession, and vice versa, subsequent developments can be placed into context. By understanding the interplay of technological evolution and socio-cultural dynamics in the profession over several decades, an uncritical techno-optimism future perspective might be avoided. Reframing technology adoption as a culturally embedded process, the profession could be

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[424] Assuming that downstream retention in the profession is prioritised by ALS, which may not necessarily be a natural concern for selecting students.

[425] A search protocol utilising Scopus, Science Direct, Taylor and Francis, Springerlink, WorldCat, and Google Scholar and the keywords 'technology', 'architect[ure]', and 'SA/ South Africa/ Africa' yielded only eight academic papers.

empowered to adopt a more conscious approach to its adoption, which recognises both its potential benefits and its limitations. This critical perspective could help the profession to harness technology to serve as a tool for empowerment rather than one insouciantly or inadvertently promoting conservatism by replicating global models. This in turn might foster a more inclusive, culturally aligned and contextually relevant profession.

The transformative impact of UoT graduates on township and rural economies

Speculation that, although the graduates of Universities of Technology (UoT) may be subject to relative residual bias in perceived social standing,[426] they are inherently more likely to make contributions to otherwise and previously underserved township and rural economies, is plausible. Students from these settings could be more likely to attend UoTs, due to the combined effect of their socio-economic backgrounds, geographic and financial access, and the effects of policy, bound up with illusio and doxa, with potentially transformative impacts for professions like architecture. For example, Perumal (2010) suggests that:

- UoT graduates frequently establish their own enterprises, offering essential services and products within townships, thereby generating employment opportunities for community members.
- The practical, hands-on training provided by UoTs equips graduates with the necessary skills to meet local economic demands. This includes technical proficiencies in the built environment. UoT graduates actively contribute to community development by leading and participating in various projects, including infrastructure development and social responsibility initiatives, which aim to improve living conditions, enhance infrastructure, and promote sustainable development.
- Employing UoT graduates is often regarded as prestigious within the township economy, where qualifications and skills are widely recognized and valued, fostering increased trust and reliance on their services. This recognition elevates the status of UoT graduates, positioning them as role models for younger generations aspiring to pursue higher education and technical careers.

Given the limited published literature on this topic (Van Schalkwyk & Van Lill et al., 2021) particularly in the architecture profession, further research would be valuable to explore these perceptions and their implications.

Participatory processes

Modes of engagement such as through public participation, and more inclusive consultation were foreseen to be instruments to promote social justice in a post-apartheid society (Ntsele, 2024). In South Africa, development activities such as Integrated Development Plans (IDPs), the Community Work Programme (CWP), and urban renewal initiatives like the Alexandra Renewal Project have foregrounded community consultation and engagement to ensure that development efforts reflect local needs and priorities to promote inclusive and sustainable development. This would enhance transparency and accountability.

Championing the social justice agenda through participatory processes has been recognised by scholars as being potentially transformatory in terms of redefining the relevance of the profession (Lipman & Harris, 1998). However, as noted by Oberholster

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[426] *See Prestige of Institutions at 6.4 Symbolic → Economic Capital on page 226.*

and Combrinck et al. (2023), APs contributions via these modalities, for example in upgrading informal settlements, remain poorly defined and unrecognised. This lack was noted by a number of survey respondents and key informants. However, this issue was not foregrounded in the study design. The research instruments did not anticipate this theme and additional primary research would be required to address the topic in a meaningful way. Hence this was identified as a topic to receive further detailed attention in future research.

Leveraging grant opportunities
Funding support is necessary to pursue studies. NSFAS has demonstrated access, academic success and transformative capability.[427] However, NSFAS has been chronically underutilised in the architecture field. Anecdotal evidence suggests there may be some ALS where a majority of students enjoyed significant NSFAS support.[428] As this research considered only national level, aggregate data, studies across institutions could assist to identify best practices in leveraging grant and loan opportunities and replicating them at other institutions, as a measure to improve access and diversity in ALS.

Extracting additional value from survey data
The survey revealed intriguing observations about the profession and its habitus, producing numerous insights and serving as valuable foundational knowledge for future research. However, the sheer volume of data collected provides an excellent opportunity for more comprehensive analysis. There remains much insight to be gained, which was excluded from the purview of this study.[429]

7.4 Chapter Seven Summary

Chapter seven of the research presented a comprehensive analysis of the fourth study objective, which aimed to identify and propose initiatives for enhancing retention and minimising attrition within the South African architecture profession. The chapter began by acknowledging the complexities surrounding the concepts of doxa and illusio, which contributed to the challenges in finding effective solutions. The recommendations were categorised into four distinct varietals, each addressing different levels of influence and actionability.

The chapter commenced with a summary of the research process detailed in the earlier parts of the thesis before embarking on a review (through key informant engagement and literature review) of other South African professional sectors to discern lessons and best practices for attrition, retention and transformation. The comparative analysis indicated that none of the professional councils within the built environment adequately reflected the population demographics, particularly regarding race and gender. An examination of the consulting engineering and legal professions, noted similar challenges to the architecture sector. It noted that economic capital accumulation was similarly hindered

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[427] *See 6.1 Economic → Cultural Capital on page 215.*

[428] *External examiner 2 comments.*

[429] *Permissions and ethics applications permit use of these data for further research.*

in engineering, with high attrition rates attributed to poor economic conditions and inadequate remuneration. The legal profession, while initially demonstrating high translation rates from graduation to practice, faced subsequent challenges in maintaining demographic representation and addressing attrition, particularly among black^ women.

Issues were classified into four varietals. The first varietal encompassed broad macro-level structural issues, such as economic conditions and the influence of patrons, which fell outside the scope of this study. The second varietal advanced straightforward recommendations that could be implemented with minimal risk. The third varietal examined complex issues, interweaving multiple factors, while the fourth varietal outlined areas for future investigation. In discussing the first varietal, the chapter acknowledged that while economic forces are beyond the profession's control, APs can still adapt to changing market conditions by diversifying their service offerings and engagement tactics. The second varietal proposed practical measures, such as improving public awareness of professional designations and conducting graduate tracer studies to identify the factors contributing to architecture graduates' success. The third varietal emphasised the need for a cultural shift within the profession, pointing to the demanding and often exploitative workplace culture that hampers diverse participation. It advocated for the establishment of fair work guidelines and the development of supportive environments to foster inclusion while considering the significance of raising the visibility of architects in the media and public realm.

Given that the nexus may be a wicked problem, a multifaceted approach seems appropriate. The recommendations, based on insights gleaned from the research, combine straightforward interventions alongside more complex ones in the hope that these might ultimately foster a more inclusive and sustainable architecture profession. The thesis, therefore, not only illuminated the challenges faced by the architecture profession but also provided a speculative set of future initiatives for stakeholders motivated to encourage retention and transformation within the field.

8 SYNTHESIS

Chapter eight reflects on the original study objectives, considers contributions made by the doctoral study, and a reflects on the research process itself.

8.1 Summary of Intentions

In this analysis, I've strived to merge various subjective viewpoints with a data-driven approach to offer a comprehensive reflection of the field. My goal was to illuminate both the internal conflicts and the broader challenges it faces, including its fluctuating conditions and the dynamics of its institutions and markets. By presenting quantitative data, I aimed to uncover trends and measure impacts while accurately portraying the underlying structures and powers. This groundwork allows for informed speculation about future possibilities. As I conclude, I plan to revisit ethical considerations and the issue of underrepresented voices, critically assessing the focus on demographics like race and gender, and exploring the potential for moving beyond such categories. I'll also touch on attrition, its consequences, and its implications for investments in Advanced Placements (APs), before reflecting on the anticipated contributions of this study and insights gained through the research process.

8.1.1 A question of ethics

The survey design was in accordance with generally accepted practice and in accordance with the approved ethics application. See *Appendix G – ethics approval*. This made provision for the anonymity of respondents, and the collector was set up so that no names or contact details were recorded. That this veil of anonymity provided some respondents with a high level of confidence to be forthright in their responses is evident from the answers sampled provided in the electronic survey. I have some regret in having approached anonymity in this way and, retrospectively, may have collected names and contact data, specifically as an optional field, and purged this in the analysis phase. This approach would have allowed me to follow up on interesting or unclear journey accounts and even to acknowledge the respondents' contributions. This regret is further reinforced because, although respondents were afforded complete anonymity, many reached out to me directly via social media platforms, email, and messaging to confirm that they had completed the survey. It is in part to respond to a principle articulated as follows~

> *Anonymity of research participants, the research site and other features of the study to mask the identity of participants and to limit the possibility of the tracing of the findings back to the study site is a practice accepted, and indeed required as integral to ethical research. Yet how can a social justice lens be applied if we adhere to the ethical requirements of anonymity imposed by ethics committees? … imposing institutional rules of anonymity mutes the voices of participants, rendering invisible the very issue/s that they are eager to transform.*
>
> (Nduna & Mayisela et al., 2022)

8.1.2 Ignoring the significance of abstinence

Participation rates were reported for interest, usually without remark, and little was made of the significance of the poor conversion rate from surveys initiated and then not

finalised (~50%). This is a limitation of this study, because, as Bourdieu notes in Distinction (1984:412-462), abstaining from responding can be at least as significant as responding.

8.1.3 Why not colour- or gender- blindness?

Some of the white survey respondents and key informants interviewed conveyed exasperation about what is perceived as an anachronistic preoccupation with race, gender, and transformation, especially among regulators. One of their suggestions is that a policy of colour- and gender- blindness is adopted, whereby race and gender are simply ignored or overlooked in interpersonal interactions and institutional policies, such as measuring and reporting. The underlying principle is: if we do not even notice race, then we will not act in a racist manner. If we do not even notice gender, then we will not act in a gender-biased manner. This perspective entails that racial group membership and race-based differences can be ignored when decisions are made, impressions are formed, and behaviours are enacted. Research such as Harvard University's hosted Implicit Association Test (Project Implicit, n.d.) demonstrates that this may rarely be true.[430]

Ignoring race and ethnicity often results in the neglect of the unique experiences, struggles, and systemic injustices that different individuals face, based on inherent demographic attributes. For instance, in societies built on colonial violence, race and economic capital have been shown to be co-constitutive. Steyn (2023) argues that identifying, passively, as 'colour-blind' or with 'colour-blind' views is ineffective and can even perpetuate bias, advocating instead for active 'anti-racist' stances. Similarly, gender-blindness can result in the neglect of the unique experiences and challenges faced by different genders. In failing to acknowledge that systemic and structural inequalities persist, for example, as wage gaps, representation in leadership roles, and experiences of exclusion, harassment and violence, they can perpetuate marginalisation.

Colour-blind perspectives assume that we live in a post-racial and post-gender society where racial and gender inequalities do not exist (or will disappear if we ignore them long enough). However, credible data alerts us that race and gender inequities persist (Leibbrandt & Díaz Pabón, 2021). While the intent behind colour- and gender-blindness may be to promote equality, it is not a feasible solution due to the systemic and structural nature of racial and gender inequalities. Instead, acknowledging and addressing these differences and the unique experiences of different racial, ethnic, and gender groups may be necessary to understand and confront inequality.

Subscribing to this view is Mpofu-Walsh (2021), who critiques the notion of post-racial pragmatism and postulates that racism is perpetuated, not just through individual racist beliefs but through a metamorphosis of socio-economic structures. He argues that while formal apartheid has ended, a pernicious, less detectable form has emerged, entrenching white privilege. This 'new apartheid' is characterised by systemic racial oppression that is decentralised, privatised, and self-replicating. This infuses various aspects of life, obscured by the success of a few black^ individuals, evidenced, for

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[430] According to Harvard, the Implicit Association Test (IAT), administered by a research collaborative, "measures the strength of associations between concepts (for example, black people, gender diverse people) and evaluations (for example, good, bad) or stereotypes (for example, athletic, clumsy)" based on response times to users associating concepts (Project Implicit, n.d.).

example, by a strengthening of private health and security services. The view that structural racism or white privilege remain a problem was not shared by all APs, many of whom regarded the attention to issues of transformation as excessive or unnecessary. Moreover, a good argument can be made that the transformation objectives of the profession should not be confined to narrow demographic concerns but should be defined clearly in collaboration with the profession. For some APs, its current formulation was vague, narrow-minded and an imposition (symbolic violence) from 'above'. This situation should be well appreciated and considered in future work to address representativity in professions.

8.1.4 Waste?

In the opening parts of this exposition, I posed that "an argument *can be made* that attrition is wasteful".[431] This opens the question of whether the state of affairs is indeed wasteful. There are countervailing views, such as that it is not the function of universities to **'**produce' students and/ or that institutions ought to retain rights in the selection of students without interference from the government or society (EUA, 2017; Bunting, 1975), and that student attrition can be evidence of the quality of the institution (Wiencke, 1994), among others. Scholars may assume the paradigm that education expenses are 'investments', say in development or futures or society, rather than 'costs' or 'sacrifices'.

It is an open question whether failure to enter or sustain professional registration with SACAP is indeed cause for concern. Perhaps 'dropouts' are nevertheless enriched by their experiences? Tinto, deliberating on student departure (2012:3), points out that many students who leave do not necessarily consider themselves failures. Neither need society. This thesis research found that some 'vanished' APs become well-adjusted, self-actualised, meaningful contributors to their respective communities, albeit outside the architecture field's purview.

For example, there are notable individuals who play dual roles, trained as architects and excelling in another field - the ARCHIcultural diaspora, such as novelist and architect Yewande Omotoso (Russell, 22 June 2022), actress and architect Linda Mvusi (Notrecinema, n.d.), and conductor and architect Ofentse Pitse. See *Figure 82*.

[431] *See 1.3.1 Cost of production of professionals on page 21*.



Figure 82: ARCHIcultural diaspora. Left to right: Yewande Omotoso, novelist & architect (Russell, 22 June 2022); Linda Mvusi, actress & architect (Notrecinema, n.d.); Ofentse Pitse, conductor & architect (Volkwyn, 2023)

The investment in architecture training may provide transmutable skills.

> *The very same principles that I was taught in architecture, are the same ones used in music - principles such as technique, balance, structure, harmony", she explains. "When I analyze a musical score, I always think about those principles that I learned in architecture.*
>
> (Pitse, in ASAQS, n.d.)

That success outside the field and contribution to society can be in spite of, even because of, an excursion into the world of Architecture, remains an open question, since~

> *I am currently working on a new manuscript and deeply involved in the structure of this story, plotting it out in a way I haven't done before, designing it. The same way one would work through a concept for a building and then in putting it together be mindful of the structure – the thing that will ensure it stands up. In fact my supervisor frequently refers to the scenes as "rooms" and encourages me to tap into my process as an architect. I don't overstress the metaphor but it's useful at times. One thing I like is how, in architecture, when conceptualising, you use tracing paper and keep sketching over the drawing until you find the essence in the design. I like to compare that to drafting (draughting, hee hee). To be honest I'm not sure these comparisons are valid or ridiculously helpful but they are fun to make.*
>
> (Omotoso, in Mwesigire, 21 January 2015)

It is remarkable, in these examples, that the title 'architect' has remained firmly attached to the persons, even in referring to their notable acclaim in other areas of endeavour, suggesting that it remains a treasured title, a mark of polymathy, and a symbol of pride and distinction.

8.1.5 Cautionary?

Writing about the architectural field in Australia, north America and Europe in 1998, Stevens noted that entrants entering a field with a chronic oversupply of credentialed individuals, encountered a discrepancy, as anticipated rewards, be they symbolic or material, remained elusive. Consequently, he posited that what seemed like a straightforward intergenerational clash was a conflict stemming from distinct generational relationships with the educational system. This conflict resulted in the emergence of new trajectories for entrants in the occupation as they endeavoured to attain the perceived entitlements associated with their credentials (1998:218). Stevens foresaw the consequence of this state of affairs as follows~

> *These processes [of attrition] will at first be misinterpreted by commentators who will see the new trajectories as a celebration of the versatility of the architect. However the individuals without the occupational title of 'architect' will not associate themselves with other architects. They will not sit the registration exams. They will not join their professional associations. They will become part of the movement in the English-speaking world that transforming the architecture degree into something like its Italian counterpart, a particular sort of liberal arts education.*
>
> (Stevens, 1998:220)

As Sechaba Maape argued (SACAP, 18 July 2024), unlike much of the UK and Europe, South Africa has developmental needs [due to growing populations and underdevelopment], which ought to provide opportunities for young APs. Therefore, whilst building resilience and transitioning to other careers may serve immediate needs, it may not be in the long-term interests of society. The cautionary then to glean from Stevens is that if we are unable to constructively engage APs in what they set out to do, they may be lost to the field.

As observed by Allyson Lawless (2024), though professionals (engineers, in her case) may return when 'the money is right' or the working conditions are right, there is an enduring residual deficit in practical experience and capacity felt by the industry as a lack of mentors and know-how to be transferred to the subsequent generations of professionals. The bind is that in the modes it is currently done, it takes so long to 'produce' APs, especially in the Pr. Arch category, that scaling up and scaling down rapidly in a responsive and dynamic way is not feasible. Moreover, while the polymaths celebrated in the section above are inspirational, it would not be realistic to presume that all APs could or should diversify into other fields.

8.2 Contribution of the Study

This thesis set out four objectives. The first objective was to describe and characterise retention, attrition and demographic transformation in the architecture professional development pipeline mainly through quantitative desktop methods and to make a case that this constituted a retention-transformation nexus. This was achieved by evaluating statistics (where available) on ALS enrolments, graduates, and registrations (as candidates and in a proliferating set of professional categories) against the backdrop of background demographics and compared to other professions and territories. Although the cohort of interest (APs) was broadly defined, the pragmatic research methodology adopted clearly privileged formal participants and traditional routes of entry and progression, for which data is accessible, and participants are identifiable and conveniently approachable.

The second objective was to articulate a structuralist constructivist view of essential field dynamics and capital flows within the profession, focusing on the period between 2000 and 2019 through desktop analysis and engagement with selected key informants and active practitioners. This structural view set the architecture profession out as a 'field'. It proceeded to describe, in a generalising (and reductionist) manner, some of the significant ways in which the key actors (government, ALS, practices, and the VAs) had sought to define, foreclose and control the field. Although not comprehensive, I examined a sample of capital assets, mapping access, exchanges, trajectories and systems of difference as multiple actors competed and cooperated for various forms of capital.

The third objective was to consider the range and diversity of subjective experiences through a collection of social trajectories of retained and 'lost' actors through the pipeline, using an electronic survey. Primary data on perceptions were gathered, visualised, and analysed, considering race and gender for both 'lost' and retained APs as they encountered 'ARCHIculture'. They navigated the field and its structures (institutions and workplaces) and formulated habitus. The fourth and final focus, building on the preceding three, was to identify initiatives and instruments with potential for enhancing retention and minimising attrition, to speculate on their utility to the future profession, and to nuance these with reference to doxa and illusio.

Building on international contemporary work, this study contributed to the scholarship by examining retention-transformation nexus, through a constructivist structuralist lens. Informed by the theoretical apparatus of Bourdieu and building upon the works of the architectural sociologists Larson, Blau, Cuff, and Stevens, this work offered a critical perspective on existing discourse. While adding to the existing body of nation-state studies on the sociological aspect of the architecture profession, it found that the local profession exhibited both similar and unique characteristics compared with other professions and the international examples in the literature from Canada, North America, the UK, Aotearoa New Zealand, and Australia.

Although attrition from the architecture profession and demographic representation have been studied in other contexts, these studies typically focus on race transformation concerning minority demographic populations. This research, centred on South Africa - where black^ APs represent a professional minority but form part of the population's demographic majority - offers a distinctive contribution. By examining sociological trajectories over a sustained period of two decades, signalling the inception of implementation of a programme intended to drive radical transformation and supported by a proliferation of tools and initiatives, this study provides valuable insights. It is among the first to investigate how demographic transformation is influenced by attrition, viewed through the lenses of both race and gender. The electronic survey conducted for this research produced a primary dataset, which may offer further analytical opportunities. While the proposed model for distinction as an analytic framework is presented as original, its full utility remains to be tested. Finally, the study outlines a research agenda for future exploration in this important area.

8.3 Reflections on Research and Process

8.3.1 Elitist tendencies

The nature of the topic of transformation may predispose the method to emphasise competition and hierarchy. Foregrounding Bourdieu's concept of distinction and positioning the architecture profession as a locus for the accumulation of various forms of capital also perpetuated an elitist bias to the study. This framing delineates architecture as a domain preoccupied with exclusionary practices and hierarchical struggles, rather than as a multifaceted field encompassing collaborative knowledge production, ethical commitments, and creative agency beyond the pursuit of status. An effort to reintegrate habitus and diverse personal 'lived' experience into the analysis was undertaken through the section on personal journeys, which scrutinised the social trajectories of APs defined as a deliberately inclusive category. By virtue of social networks used to distribute the survey, this reached numerically (though not proportionally) more retained than lost professionals further embedding this bias. Ultimately, rather than providing a substantial counterbalance, many findings continued to resonate with the elitist view, underscoring how structural barriers and capital accumulation persist in shaping doxa and illusio.

A limitation arose from an emphasis on competition for capital, which, while significant, does not fully encompass the broader social functions and democratic potential of architecture. A more balanced approach could further investigate grassroots architectural practices, participatory design, and non-elite actors to mitigate the overrepresentation of prestige-driven narratives. An alternative framework might incorporate perspectives from actor-network theory or critical spatial practices to highlight relational dynamics and collective action. This shift would extend the analysis beyond a focus on capital accumulation and distinction, facilitating a more nuanced comprehension of architecture as a rich and evolving practice that both shapes and is shaped by society in ways that challenges and transcends hierarchical social structures.

8.3.2 Who cares?[432]

The growing trend of APs 'dropping out' or never entering the profession raises important questions: who actually cares? and why? The issue is complex, with each actor holding different stakes and motivations.

A cynical view, widely expressed by APs in this research, is that SACAP only cares about revenue generated. Operating under New Public Management principles - typical of a neoliberal framework - SACAP is expected to be as financially and functionally independent and self-sustaining as possible. While the entity should not and probably is not driven purely by a profit motive, the reality is that a reduction in the number of professionals entering or remaining in the field affects their primary source of income: registration fees.[433] SACAP leadership is compelled to be pragmatic. Whatever mandate it may dispense in regulating the profession and protecting the public, ensuring its viability and functionality is a central concern, even as the pipeline of new entrants fails to

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[432] *External Examiner 2 posed the challenge to consider this in the study.*

[433] *Revenue stream contributions vary very slightly from year to year. As an indication at the studies' midpoint, it was made up as follows: annual fees=83%, renewals=7%, registration fees=4%, exam fees=3%, interest, rental and other=3% (SACAP, 2011:59).*

stabilise or grow. Therefore, that they were the ones bring the ‘problem’ to the table is unsurprising.

Other groups that could have a vested interest are the taxpayers and the state. Architectural education, particularly at the university level, is expensive. Significant public funds – in the forms of subsidies and bursaries are invested in producing graduates. From the state’s perspective, ensuring that these students successfully transition into the profession is a matter of return on investment. If a large number of graduates do not enter or remain in the field, the state faces potential claim to wasted resources. The loss of skilled professionals limits the country's capacity to address its own development challenges. In this sense, taxpayers are indirectly affected by the underutilisation of the expertise they've helped build.

However, little evidence emerged in the research that graduate APs are common among the pool - by some accounts growing - of unemployed graduates.[434] The systemic challenges of the profession, such as low starting salaries, long work hours, and the high costs of entry may make it a less appealing prospect for young graduates than allied or alternate fields. This research indicated that many indeed find alternative ways of contributing, either in a different field or out of the gaze of the regulated field. If this is so, it seems plausible that new graduates may also not be first to care about retention or transformation of the profession, irrespective of the rationale for leaving or concealing their presence.

RPs might also not be invested in the issue of retention. From a purely individual perspective, established professionals may have weak incentive to focus on mentoring or nurturing the next generation. Fewer professionals entering or persisting in the field, could lead to fewer challenges in securing projects and greater job security for those who remain, meaning that the status quo serves their interests. Immersed in the neo-liberal part of a bifurcated economy, those established in the field may prioritise material capital over legacy.

ALS - especially those based in UoT, which offer newer, more accessible architecture learning programs - might have a different stake in the matter. These institutions have been part of a larger effort to open up the profession to a broader demographic, especially among previously disadvantaged communities, and may be more incentivised to drive transformation. As structural reforms allow more students to access architectural education, many of them may gain distinction and prestige when their graduates enter and stay in the profession. The accessibility of new programs, combined with a desire for a profession that allows for social mobility, and less options available, could drive these graduates of UoT to enter the field despite its challenges. These emerging graduates, however, face the additional burden of navigating a profession that is still grappling with issues of inclusion, mentorship, and equitable opportunities for advancement.

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[434] *See 4.5.2 A spectre of unemployment*.

8.3.3 Reflexivity framed

According to Kenway and McCleod (2004), Bourdieu distinguishes three senses of 'reflexivity' as, a sense by which:

- individuals gain perspective and craft their own biographies with modifications prompted by critical self-awareness and reflection. (See *Appendix E – an autoethnographic account of thesis topic selection: and the subjective salience of its themes to my life story*).
- researchers are aware of their role and the effect of their undertakings as a concession to the post-positivist methodological doxa to unsettle and reframe implied epistemological claims to objectivity. (I have endeavoured to infuse this ethos throughout the research and engagements and hope it is apparent throughout the text of this thesis).
- extending beyond mere textual and autobiographical references or the unconscious predispositions of individual researchers, there is an exploration of the 'epistemological unconscious' and the 'social organisation' inherent within the discipline or field of sociology (Bourdieu & Wacquant, 1992:40).

This latter sense will now be discussed.

8.3.4 Surfacing of epistemological unconscious?

Issues of power relations and negotiations surge and recede throughout history, suggesting that societal awareness is dynamic and influenced by contingent actions within specific fields of power. This aligns with Bourdieu's concession that while social structuration is predicated on continuity and stability, change is perpetual – and under some conditions, transformative change is possible or likely.

A number of significant local and international social events challenging cultural doxa occurred, seemingly with greater pitch during the second half of the period under review (Judin, 2021:1). Moments such as #BlackLivesMatter (2013), #RhodesMustFall (2015), #FeesMustFall (2015), and #MeToo (2017), amplified through the media - both reflected and catalysed a heightened consciousness of the enduring and pernicious nature of structural racism, gender marginalisation, social injustices, and symbolic violence (Mpofu-Walsh, 2021). Through these confrontations, taken-for-granted beliefs were openly challenged and brought decisively into the societal consciousness, generating discussion and critique (Mounk, 2023; Táíwò, 2022). Monuments and structures (the narratives they seek to conserve and the meanings they evoke) have oftentimes been the focal point of these contestations. What is omitted, forgotten and not fixed into bronze and concrete can be drawn into focus when the gaze is shifted to challenging rather than ignoring or accepting the memorialised. While memory is built into the architecture, it is also present in other places, practises, and artefacts, and the meaning attached to all of these is contingent and shifting (Middelmann, 2021:40). Thus, while the reflexive impulse of the social milieu is always in flux, (Sawyer & Gampa, 2018; Dunivin, & Yan et al., 2022; Judin, 2021), and with it, transformative potential, there are moments when these could be more at the fore, and more receptive to change (Archer, 2005). These moments of enhanced societal sensitivity, I argue, may present unique openings for APs to engage in reimaginations on space, place and building-making to inform the discourse on what could and should be sanctified as constituting architecture.

8.3.5 Final reflection and directions for further work

I chose to centre my analysis on Bourdieu as his theoretical framework appeared accessible and intuitive for application:

- I avoided centring feminist or gender studies, social justice, decolonisation, or critical race theory, as many works tackling the topics of interest are apt to do. These frameworks often view problems from singular perspectives (for example, addressing lived experience or systems). Some bring a priori agendas, assumptions and (confrontational) values that do not necessarily align with my naturally discursive and reticent disposition.
- I have used a consequentialist basis (cost of production of graduates) to undergird the study, whereas it could well have been positioned from an ethical stance. Transformation could be positioned as a moral imperative.
- Per Saïd (1979), Foucault, Bourdieu, and others, no theory, including structuralist constructivist theory, is inherently neutral. Any approach inevitably carries implicit agendas related to society and its dynamics. By recognising this, and striving to remain vigilant, academic work can be more productive, nuanced and balanced.

Scholars acknowledge that Bourdieu was sensitive to “race and racism as social factors that complicate class (dis)advantage” (Wallace, 2017:908), although most of Bourdieu’s writings substantively address class and do not centre race or ethnicity (Go, 2013). Arguing that it is a South African artefact, this thesis largely supplants the notion of class with (crude and problematic) demographic categories. This may be out of keeping with its structuralist constructivist notions, which critique the notion that attributes define actors, emphasising the fluidity of social constructs and the importance of context in understanding field dynamics, and thereby rejecting essentialism.

Critics may argue that in selecting the theories of Bourdieu to think with, I have missed an opportunity to foreground and celebrate female or African scholarship, thereby tacitly endorsing western-centric, masculine scholarship. This choice may indeed overshadow significant works that could have provided suitable frameworks for my study. Consequently, this thesis now joins an extensive body of literature building upon Bourdieu's theories. I acknowledge the validity of this critique. However, I find reassurance in Táíwò's assertion that my agency permits an appropriation of such material for my purposes, which, if executed thoughtfully, can amount to a worthwhile, original contribution.

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[435] *See Component 2: – a structuralist constructivist view of the nexus on page 46*.

[436] *See Table 6: Key informant table on page 48*.

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9 APPENDIXES

Appendix A – glossary of terms

Appendix A clarifies terminology as it is used for the thesis. First terms related to architecture and sociology are defined, then attrition, retention, transformation, gender, and race terms are defined.

Architecture- and sociology- related terms

APs

'Architecture professionals', refers collectively to aspiring, practising, and past practitioners, in the field of architecture, who embarked on a journey to actualise their aspiration. This includes individuals who took observable, positive steps to 'do' architecture, for example, by commencing applicable studies, entering apprenticeship, or producing Architecture in South Africa.

ARCHIculture

'ARCHIculture' is my neologism, as shorthand for the culture which instils habitus (attitudes, work habits and values, per Abercrombie (in Banham, 1991:23)) in the architectural community. It is conceived as the dynamic interplay of shared and disputed cultural dispositions, practices, and symbolic systems. It encompasses the shared experiences, values, and traditions that shape the way APs perceive, conceive, and transmit architectural knowledge and practices as *illusio* and doxa within the field. Habitus serves as the underlying framework through which professional identities are formed, alliances forged, and aesthetic and ideological discourse negotiated. It is through the medium of ARCHIculture that APs acquire habitus and engage in a continual process of cultural exchange, innovation, and evolution, enriching the profession and its discourse while perpetuating and reinventing its traditions and legacies, as habitus.

Starchitect

Prominent APs with celebrity status.

Ideal type

'Ideal type' is identified in Britannica (n.d.) as~

> *a common mental construct in the social sciences derived from observable reality although not conforming to it in detail because of deliberate simplification and exaggeration. It is not ideal in the sense that it is excellent, nor is it an average; it is, rather, a constructed ideal used to approximate reality by selecting and accentuating certain elements.*

In this work it is used in the context of the model for distinction.

Wicked

Rittel and Webber propose several key characteristics of wicked problems, for understanding complexities involved in planning and policy-making. The ten distinguishing properties of wicked problems, according to their work, are:

1. There is no definitive formulation of a problem: Understanding the problem is intertwined with the solution, making it impossible to define the problem exhaustively without considering potential solutions.
2. Wicked problems have no stopping rule: There are no clear criteria for when a solution is sufficient, leading planners to stop based on external factors like time or resources rather than the problem's resolution.
3. Solutions to wicked problems are not true-or-false, but good-or-bad: Unlike tame problems, where solutions can be objectively verified, wicked problems require subjective judgment about the quality of solutions.
4. There is no immediate and no ultimate test of a solution to a wicked problem: The consequences of solutions unfold over time, making it difficult to assess their effectiveness immediately or ultimately.
5. Every solution to a wicked problem is a "one-shot operation": Each attempt to address a wicked problem is consequential and irreversible, meaning that planners cannot learn from trial-and-error in the same way as with tame problems.
6. Wicked problems do not have an enumerable (or exhaustively describable) set of potential solutions: There is no comprehensive list of solutions, and the set of feasible actions relies on judgment and creativity.
7. Every wicked problem is essentially unique: While similarities may exist between problems, each wicked problem has unique characteristics that require tailored approaches.
8. Every wicked problem can be considered to be a symptom of another problem: wicked problems often reflect deeper, underlying issues, making it challenging to address them without considering these broader contexts.
9. The existence of a discrepancy representing a wicked problem can be explained in numerous ways: Different stakeholders may have varying interpretations of the problem, leading to multiple potential explanations and solutions.
10. The planner has no right to be wrong: Unlike scientific hypotheses, where refutation is acceptable, planners are held accountable for the consequences of their decisions, which can significantly impact people's lives.

(1973:160-169)

Not all of these features must be present for a problem to be wicked, and they are not presented as exhaustive. Brown and Harris et al. (2010:6) suggest that if the question: '*who owns the problem?*" cannot be answered with some consensus, the problem may be wicked. They advocate innovative approaches to enable integrative responses and concerted action to complex, dynamic issues by challenging single-track conceptualisation of issues. For example, Lawrence states~

> *Current shortcomings of traditional scientific research and professional practice are not necessarily the result of the lack of political commitment or financial resources or viable solutions. They are, above all, the logical outcome of the narrow vision of so-called experts who do not address fundamental issues but only topics isolated from their societal context. In order to deal with these limitations, various sets of obstacles need to be revised or dismantled.*
>
> (Brown & Harris et al., 2010:16)

The antidote prescribed by Brown and Harris et al. (2010) is fourfold. First, to consider that paradigms applied in the proposed solutions may fail to grasp the complexity of the contexts. Second, there may be an overreliance on knowledge constructions that prioritise rational and utilitarian approaches for interpreting the organisation, use, and management of human ecosystems. Third, a fragmentation and bureaucratisation of knowledge and expertise may

lead to excessive specialisation and segmentation. Finally, a persistent lack of effective transfer and communication among professionals, politicians, interest groups, and the public, may create barriers to mutual understanding and cooperation.

Attrition- and transformation- related terms

Attrition

Unless the context suggests otherwise, 'attrition' refers to losses from the architecture profession. The cohort of interest is those who could be discerned to have been APs, who made meaningful progress toward the quest of directly contributing to the production of architecture, (whether or not they were RPs), but who ultimately did not persist. Therefore, it is assumed that attrition is observable (in some sense quantifiable) as systems' losses.

Retention

Unless the context suggests otherwise, 'retention' refers to APs who demonstrated sustained loyalty to the field evidenced through active participation and engagement in pursuit of actualising architecture. This includes individuals who embarked on applicable studies, entered candidacy or registered with SACAP.

Transformation

Unless the context suggests otherwise, 'transformation' is intended to convey change that encompasses the necessary institutional, cultural, interpersonal and psychological changes that manifest as a sense in professionals of belonging to the profession and a sense in society that the profession brings value, i.e., that the profession belongs *in* and *to* its society (via the medium of 'meaningful' work). Crucially, transformation so defined transcends gender and race distinctions.[437] These field conditions should (spontaneously) reduce attrition, improve retention, to gradually yield a demographically representative field. Transformation is therefore presumed to manifest visibly as change towards a state approximating demographic representativity and enfranchisement, against a broad range of diverse characteristics, including (at least) both dimensions of interest here, namely gender and race.

Race

Notwithstanding recognition that, for a host of historical, cultural, biological, and political reasons, the definition, classification, and assignment of race is fraught with sensitivity and difficulty, the thesis follows the classifications set out in the B-BBEE, as it is widely adopted and arguably the most generally understood categorisation, with modification set out. According to B-BBEE nomenclature, 'black' is a generic term that includes African blacks, Chinese,[438] coloured and Indian people who are citizens of South Africa by birth, descent, or naturalisation (Coetsee, 2021).[439] To disambiguate, I utilise the term 'black' together with a '**^**' (i.e. 'black^') to mean the collective for black African, Chinese, coloured and Indian people,

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[437] Adapted from Strugnell and Ranchod's (2016) definition to encompass the necessary cultural, institutional, inter-personal and psychological changes required to dismantle gender and race disparities.

[439] White-skinned individuals and non-citizens are sometimes discouraged from classifying themselves 'African' though they may be born in Africa, be descended of many generations born in Africa and may identify as 'African' (for example. many Afrikaner people do, even as is implied in the name). B-BBEE verification agents may not challenge an individual's self-classification, so that, in the event a person's designation is disputed, it would need resolution through the courts (Coetsee, 2021).

and use ‘black’ to denote black South African individuals. Capitalisation conventions in typical use in South Africa are adopted. Other attributes recognised as significant for socio-cultural analysis include class, poverty level, disability, race, ethnicity, and age, which can intersect with gender to compound unequal opportunity and experience. These intersectional issues will be noted, though not the focus of the study.

Gender

Upon birth, people are generally assigned one of two sex classes, male or female, based on their genitalia. Yet a person’s gender is the complex interrelationship between three dimensions: body, identity, and social gender. Since a focus of the proposed thesis is demographic transformation, of which gender is one of two identified critical dimensions of interest - the other being race - terminology to discuss and distinguish gender is required.

Although there are various accepted alternate formulations, this thesis endeavours to consider the nuances of the full gender spectrum, often referred to in South Africa as LGBTQA+, for lesbian, gay, bisexual, transgender, and related communities (Gender Spectrum, 2019). As it is common for relevant routine data to be collected and reported in the binary categories of ‘male’ and ‘female’, occasionally with a third category ‘gender diverse’, limitations may apply.

For the purposes of this study:

- 'female' includes cisgender women, and the term ‘women’ is sometimes used interchangeably with ‘female’. It is commonly denoted as ‘♀’.
- 'male' includes cisgender men, and the term ‘men’ is sometimes used interchangeably with ‘male’. It is commonly denoted as ‘♂’.
- 'gender diverse' includes individuals who identify as neither cisgender women, nor cisgender men. It is commonly denoted as ‘◇’.

Other attributes recognised as significant for socio-cultural analysis include class, poverty level, disability, race, ethnicity, and age, which can intersect with gender to compound unequal opportunity and experience. These issues will be noted, though not the focus of the study.

Appendix B – validated qualifications in 2019

Below is a tabulation of validated architectural professional qualifications reproduced from SACAP (SACAP, n.d.[b]), with number of years of study derived from university websites, referenced below.

University	Degree Program	Number of Years of Study
University of Cape Town	1. Bachelor of Architectural Studies (BAS) – Candidate Architectural Technologist	3 years
	2. Bachelor of Architectural Studies [BAS (Hons)] – Candidate Snr Technologist	1 year
	3. Master of Architecture (Professional) (M.Arch) – Candidate Architect	2 years
University of the Witwatersrand	1. Bachelor of Architectural Studies (BAS) – Candidate Architectural Technologist	3 years
	2. Bachelor of Architectural Studies [BAS (Hons)] – Candidate Snr Technologist	1 year
	3. Master of Architecture (Professional) (M.Arch) – Candidate Architect	2 years
Cape Peninsula University of Technology (CPUT)	1. Diploma: Architectural Technology – Candidate Draughtsperson	3 years
	2. Bachelor of Technology: Architectural Technology – Candidate Architectural Technologist	1 year
University of Pretoria (UP)	1. Bachelor of Architectural Studies (BScArch) – Candidate Architectural Technologist	3 years
	2. Bachelor of Architectural Studies (BArchHons) – Candidate Snr Technologist	1 year
	3. Master of Architecture (Professional) (M.Arch) – Candidate Architect	2 years
Durban University of Technology (DUT)	1. Diploma: Architectural Technology – Candidate Architectural Technologist	3 years

University	Degree Program	Number of Years of Study
	2. Bachelor of Architecture (BArch) – Candidate Senior Architectural Technologist	2 years
Tshwane University of Technology	1. B Tech Architecture (Professional) – Candidate Senior Architectural Technologist	3 years
	2. B Tech Architecture (Professional) with extended curriculum – Candidate Senior Technologist	4 years
	3. B Tech Architecture (Technology) – Candidate Senior Technologist	3 years
	4. M Tech Architecture (Professional) – Candidate Architect	2 years
University of KwaZulu-Natal (UKZN)	1. Bachelor of Architectural Studies (BAS) – Candidate Architectural Technologist	3 years
	2. Master of Architecture (M.Arch) – Candidate Architect	2 years
Nelson Mandela University (NMU)	1. Bachelor of Architectural Studies (BAS) – Candidate Architectural Technologist	3 years
	2. Master of Architecture (M.Arch) – Candidate Architect	2 years
University of Free State (UFS)	1. Bachelor of Architectural Studies (BAS) – Candidate Architectural Technologist	3 years
	2. Bachelor of Architectural Studies [BAS (Hons)] – Candidate Snr Technologist	1 year
	3. Master of Architecture (Professional) (M.Arch) – Candidate Architect	2 years
Namibian University of Science & Technology (NUST)	1. Bachelor of Architecture – Candidate Architectural Technologist	4 years
	2. Bachelor of Architecture (Hons) – Candidate Snr Technologist	1 year
University of Johannesburg (UJ)	1. Diploma: Architectural Technology – Candidate Architectural Technologist	3 years

University	Degree Program	Number of Years of Study
	2. BTech: Architectural Technology – Candidate Senior Architectural Technologist	2 years
	3. BArch (Bachelor of Architecture) – Candidate Senior Architectural Technologist	4 years
	4. MTech: Architectural Technology (Professional) – Candidate Architect	2 years
Inscape	1. Higher Certificate: Architectural Technology – Candidate Draughtsperson	1 year
School of Explorative Architecture (SEA)	1. Bachelor of Architectural Studies (BAS) – Candidate Architectural Technologist	3 years
	2. Bachelor of Architectural Studies (Hons) – Candidate Snr Technologist	1 year
	3. M.Arch (Prof) – Candidate Architect	2 years
Arcia School of Architecture	1. Advanced Certificate in Architectural Technology – Candidate Draughtsperson	1 year
My Academy (IIE)	1. Higher Certificate in Architectural Technology – Candidate Draughtsperson	1 year
	2. Diploma in Architectural Technology – Candidate Architectural Technologist	2 years
STADIO Holdings	1. Higher Certificate in Architectural Practice – Candidate Draughtsperson	1 year

Cape Peninsula University of Technology. (n.d.). Architectural Technology. Retrieved from https://www.cput.ac.za/architecture/courses [Accessed: 18 February 2025].

Department of Architecture at DUT. (n.d.). Department of architecture. Retrieved from https://www.dut.ac.za/architecture/courses [Accessed: 18 February 2025].

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University of the Witwatersrand. (n.d.). Architectural Studies. Retrieved from https://www.wits.ac.za/architecture/courses [Accessed: 18 February 2025].

Appendix C – professional interest groups

South African recognised voluntary associations

Table 24: VA recognised by SACAP as at 2019 (and an additional three)

1	South African Institute for Architects
2	Border Kei Institute for Architects
3	Cape Institute for Architects
4	SAIA - Eastern Cape Institute of Architects
5	SAIA - Free State Institute of Architects
6	Gauteng Institute for Architects
7	KwaZulu-Natal Institute for Architects
8	Pretoria Institute for Architects
9	Freedom Architecture Consulting Empowerment
10	The African Institute of Interior Design Professions
11	South African Institute of Architectural Technologists
12	South African Institute of Draughtsmen
13	South African Institute of Building Design
+1	Limpopo Institute for Architects
+2	Mpumalanga Region of the South African Institute of Architects
+3	Northern Cape Region of the South African Institute of Architects*

Appendix D – questionnaire

BACKGROUND AND PURPOSE

The purpose of the survey instrument was to collect data for a PhD entitled *attrition and transformation in South Africa's architectural professions: race, gender and belonging, 2010-2019*[440] and related research and publication.

DESIGN

The instrument design was adapted from similar international surveys, most notably NCARB/ NOMA Baseline on Belonging (2021). SurveyMonkey was used as a collector. A skipping function led respondents through a sequence of questions depending on their answers. All questions were optional.

TARGET PARTICIPANTS

For survey invitations, potential participants were asked the question: "Have you ever embarked on a career in the architecture profession in South Africa?" If so, they were invited to participate "whether or not they had persisted". This approach was intended to ensure participation was as inclusive as possible by making provision for any individual currently or previously self-identified as architectural practitioners, irrespective of their professional path or status. This cohort were termed 'APs'. Questionnaires were distributed via SACAP, voluntary associations, university alumni offices, and social media platforms.

PRELIMINARIES

- Ethics approval was granted from the CSIR and Wits Research Ethics Committees.
- The tool was piloted to nine colleagues (prioritising architectural professionals, and research methods specialists) at the CSIR prior to distribution and refined.

LIMITS	RISK	REMEDY
Dishonest answers	Low	Quality control of responses
Sample bias or poor targeting	Medium	In order to get good response rates, the survey will be distributed through schools of architecture, SACAP, social media platforms (Facebook & LinkedIn) as well as by placing an advert in national media. Should reach target audience understood to be predominantly of "middle-class" socio-economic status with excellent penetration of digital media.
Low response rate	High	Multiple, targeted distribution
Data interpretation	Medium	As above, and an opportunity for follow-up engagements
Personal information	Low	Data will be held on a secure server and all POPIA provisions met.
Triggers in recollecting traumatic events and experiences	Medium	Ethics submission. Option to opt out at any point. Referral to SADAG should any distress or discomfort be experienced.

[440] *Subsequently refined to "retention and transformation in South Africa's architectural profession: race, gender and Bourdieu, ~2000 to 2019".*

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

YOUR JOURNEY in South Africa's architectural profession.

Have you ever embarked on a career in the architectural profession in South Africa?
If so, I invite you to take my electronic survey.

This survey provides a structure for you to share your personal journey to and in the architectural profession, whether or not you have persisted. It forms part of research into the dynamics of the South African architectural profession and is similar to international studies. The protocol has passed muster of the research ethics committees at Wits University (H22/01/03) and the CSIR (REC Ref: 387/2022). Findings will be written up as research reports which will be available online through the university library website, and form part of papers prepared for publication and presentation.

Participation in the survey is voluntary. Ignore or skip any question you do not wish to answer. Personal information will be held confidential. Any identifying information will be removed. *Inputs provided will be held securely and not disclosed to anyone else. Beyond your appreciated contribution of time, there will be no personal costs or benefits to participate in this project. You can return to your answers using the navigation keys and can withdraw at any time until you press 'submit' at the end.*

The survey will take a path according to your responses, covering topics of work, academics, ARCHIculture and personal background to build a picture of your professional journey. It provides ample opportunity to elaborate should you choose to. The time needed could be between 30 and 40 minutes, depending on your answers. Please only complete it once.

Peta de Jager Pr.Arch M.A
PhD candidate, 8800856H
Wits School of Architecture and Planning

YOUR JOURNEY in South Africa's architectural profession.
let's start...

Have you ever graduated from an architecture degree or learning programme?

- ○ Yes
- ○ No

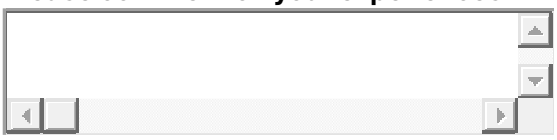
YOUR JOURNEY in South Africa's architectural profession.

Are you (or did you) pursue the recognition of prior learning (RPL) to becoming an architectural professional?

- Yes
- No

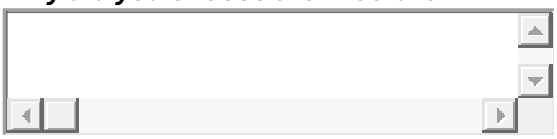
YOUR JOURNEY in South Africa's architectural profession.

Please comment on your experiences in the RPL journey



YOUR JOURNEY in South Africa's architectural profession.
let's explore your initial impressions and motivations...

Why did you choose architecture?



Recalling your conceptions about architecture *when you first embarked on your journey****, complete the sentence*****:** What surprised me most about the architectural profession during the preparatory phase was ...



YOUR JOURNEY in South Africa's architectural profession.
work in the profession...

Are you *currently working* ***in the architectural profession? If you are engaged in academia, research, building control, management or a specialist endeavour (say, heritage) answer "yes" as long as this work centres on space, place, buildings or the built environment.***

- Not currently
- I have never worked in the profession
- Yes, primarily on projects/activities located outside South African borders
- Yes, primarily on South African projects/activities

If it's complicated feel free to elaborate here

YOUR JOURNEY in South Africa's architectural profession.
work life

How many years have you worked in the profession?

How soon after beginning to search, did you *find employment* ***in the architectural profession?***

- I had employment already lined up when I graduated OR worked as a student/ intern
- Less than 3 months
- Between 3 and 12 months
- More than one year
- I have never sought employment
- Other (please specify)

How did you find your *first position* ***in the architectural profession?***

- Online job search
- Career event (job fair, recruitment event, industry conference, convention etc.)
- Recommended by friends or family
- Referral from a colleague or peer
- Through faculty or alumni (professors, lecturers or other university staff)
- Social media
- Advertisement
- I opened my own practice
- Word of mouth

Other (please specify)

YOUR JOURNEY in South Africa's architectural profession.

Tick all that apply: Which best describes your current place/s of work?

- [ ] Lone practitioner
- [ ] Public sector employee
- [ ] not-for-profit
- [ ] Private sector (for profit) employee
- [ ] Private sector (for profit) employer
- [ ] Academia or research
- [ ] Feel welcome to provide your own label here

***Please indicate your** primary professional focus*.

- ○ classical practice
- ○ building control
- ○ teaching and learning
- ○ project or programme management
- ○ specialised services/ practice
- ○ research of the built environment
- ○ other

YOUR JOURNEY in South Africa's architectural profession.

Currently, what portion of your professional work** time **do you allocate to {{ Q11 }}?

0 hours a day	typical time spent on {{ Q11 }}	16 hours or more a day

What professional activities, if any, do you spend the** remainder **of your allocated work time on?

How many practices have you worked at?

- ○ none
- ○ 1
- ○ 2
- ○ 3

- 4
- 5 or more

How many people are currently employed at your primary place of work/practice?

- 1 or 2
- 3 to 5
- 6 to 10
- 11 to 20
- 21 to 50
- More than 50

YOUR JOURNEY in South Africa's architectural profession.

Which of the following labels best describes *your current role* ***in the profession?***

- Entry level (apprentice or intern)
- Junior
- Mid-level
- Supervisor/ project manager/ team leader
- Associate/ programme manager
- Director/ partner/ senior leadership
- Practice owner/ CEO/ Principal

I prefer to self-classify

YOUR JOURNEY in South Africa's architectural profession.

Which of the following best reflects *your intentions* ***related to formal career advancement? Tick all that apply***

- I am actively working towards advancing my professional registration category
- I am not currently working towards registration advancement, but plan to in future
- I am not interested in advancing my current professional registration status

Please feel free to provide additional information

Thinking about** work culture **at your current (or most recent) primary place of employment/ practice, please rate your level of agreement with the following statements:

	strongly disagree	disagree	neutral	agree	strongly agree
All colleagues are treated fairly, irrespective of their views and backgrounds	○	○	○	○	○
Employees of different backgrounds interact well within this practice/workplace	○	○	○	○	○
I get on well with my co-workers	○	○	○	○	○

Feel welcome to elaborate

Please rate your level of agreement with the following statements regarding** professional advancement**:

	strongly disagree	disagree	neutral	agree	strongly agree	N/A
It was easy to find a local position where I could gain experience as a candidate/ novice	○	○	○	○	○	○
My earliest employer provided a variety of opportunities to help me gain experience in all relevant areas	○	○	○	○	○	○
Where I currently work, eligible colleagues are encouraged to register and **advance their formal professional status**	○	○	○	○	○	○
Where I currently work, colleagues are encouraged to study and advance their **formal qualifications**	○	○	○	○	○	○
Where I currently work, **continuing professional development** is encouraged	○	○	○	○	○	○

	strongly disagree	disagree	neutral	agree	strongly agree	N/A
My experiences since working have inspired me to advance professionally						

Feel welcome to elaborate

Please rate your level of agreement with the following statements regarding current primary workplace *recognition and reward**:***

	strongly disagree	disagree	neutral	agree	strongly agree	N/A
I am **fairly compensated** compared to others in this profession with my level of experience						
Architectural professionals are **fairly compensated**						
I **feel valued** in my current place of work						
Our **clients value the work** we do						

Feel welcome to elaborate

Please rate your level of agreement with the following statements regarding *work fit*

	strongly disagree	disagree	neutral	agree	strongly agree	N/A
My **personal values fit** this profession						
I possess the **skills and abilities** needed to do this job						
Overall, my work is **challenging and appropriate** to my level of qualification and experience						

Feel welcome to elaborate

mentorship and PPES
Tick all that apply:

- ☐ I currently **am** a mentor
- ☐ I currently **have** a mentor
- ☐ I have **never had** a mentor

Thinking about your relationship with *your current/ most recent professional mentor,* ***please rate your level of agreement with the following statements:***

	strongly disagree	disagree	neutral	agree	strongly agree
My mentor provided good support for me to get the necessary skills and experience	○	○	○	○	○
My mentor encouraged FORMAL professional development, progression and advancement	○	○	○	○	○
My mentor was (or is) fully engaged in the profession	○	○	○	○	○
My mentor treated me with respect	○	○	○	○	○
I could voice contrary views and opinions to my mentor without fear of negative consequences	○	○	○	○	○

Please feel free to mention any attributes that stand out about your relationship with your professional mentors or mentees

Have you taken the** Professional Practice Exams **(PPES)? Tick all that apply

- ○ Yes - passed all requirements
- ○ Yes - and did not succeed
- ○ Currently preparing for the PPES
- ○ No plans to write PPES

What, if any, are/were** barriers **to successfully completing the PPES?

- ☐ Time
- ☐ Costs
- ☐ Materials
- ☐ Support
- ☐ Motivation
- ☐ None of the above

Other (please specify)

Rate the difficulty in accumulating the necessary range and hours of experience for Monthly Training Records or logbooks during candidacy

Challenging Easy

YOUR JOURNEY in South Africa's architectural profession.

academics

Which of the following best reflects** your journey and intentions **related to study advancement? Tick all that apply

- ☐ I have **never studied** formally
- ☐ I am **finished** with formal studies
- ☐ I am **currently enrolled** in **formal architectural studies**
- ☐ I am currently enrolled in **non-related formal studies**
- ☐ I intend to **start or continue** formal architectural studies
- ☐ I intend to study further in **an unrelated field**

Please feel free to provide additional information

YOUR JOURNEY in South Africa's architectural profession.

your journey through academic study

Please indicate your *current and completed formal studies****. Include non-architecture related qualifications. If you have many, indicate only the most recent three.***

	Qualification 1	Qualification 2	Qualification 3
University of Pretoria	University of Pretoria Qualification 1 menu	University of Pretoria Qualification 2 menu	University of Pretoria Qualification 3 menu
University of Cape Town	University of Cape Town Qualification 1 menu	University of Cape Town Qualification 2 menu	University of Cape Town Qualification 3 menu
University of Johannesburg	University of Johannesburg Qualification 1 menu	University of Johannesburg Qualification 2 menu	University of Johannesburg Qualification 3 menu
University of Witwatersrand	University of Witwatersrand Qualification 1 menu	University of Witwatersrand Qualification 2 menu	University of Witwatersrand Qualification 3 menu
Tshwane University of Technology	Tshwane University of Technology Qualification 1 menu	Tshwane University of Technology Qualification 2 menu	Tshwane University of Technology Qualification 3 menu
University of KwaZulu-Natal	University of KwaZulu-Natal Qualification 1 menu	University of KwaZulu-Natal Qualification 2 menu	University of KwaZulu-Natal Qualification 3 menu

	Qualification 1	Qualification 2	Qualification 3
Cape Peninsular University of Technology	Cape Peninsular University of Technology Qualification 1	Cape Peninsular University of Technology Qualification 2 menu	Cape Peninsular University of Technology Qualification 3 menu
Durban University of Technology	Durban University of Technology Qualification 1 menu	Durban University of Technology Qualification 2 menu	Durban University of Technology Qualification 3 menu
University of Free State	University of Free State Qualification 1 menu	University of Free State Qualification 2 menu	University of Free State Qualification 3 menu
Nelson Mandela University	Nelson Mandela University Qualification 1	Nelson Mandela University Qualification 2	Nelson Mandela University Qualification 3
Inscape Education Group			Inscape Education Group Qualification
	Other (please identify institution in the comments below) Qualification 1 menu	Other (please identify institution in the comments below) Qualification 2 menu	Other (please identify institution in the comments below) Qualification 3 menu
NOT APPLICABLE			

Additional comments

Please indicate the planned or actual *YEAR of graduation* ***for the formal studies listed above***
Qualification 1
Qualification 2
Qualification 3

Which (if any) of your formal qualifications indicated above *are not* ***in the field of architecture?***

Thinking about your most recent *architecture university experience* ***generally, please indicate your level of agreement with the each statement below:***

	strongly disagree	disagree	neutral	agree	strongly agree
The education I received prepared me well for a career in architecture					
Faculty (professors, lecturers and other university staff) made me excited about learning					
I had advisors who helped me get the most of my academic experience					
My parents and family encouraged my professional development and progression					
My classmates encouraged my professional development and progression					
My architecture school encouraged my professional development and progression					
I did not regret pursuing a career in architecture whilst I was a student					

Did you ever abandon formal studies after you had initially enrolled?

Yes

No

Please feel welcome to elaborate on your answer

YOUR JOURNEY in South Africa's architectural profession.

preparation phase

What experiences** positively impacted **on you PERSONALLY in the preparatory phase of the architectural profession?

What experiences, if any,** negatively impacted **on you PERSONALLY in the preparatory phase of the architectural profession?

What surprised you most about** the real world/ practice environment**, following your preparation phase?

YOUR JOURNEY in South Africa's architectural profession.

professional memberships

Are you registered with the South African Council for the Architectural Profession (SACAP)?

Yes

I have never registered with SACAP, although I am eligible

I am not eligible to register with SACAP (please elaborate below)

My professional registration has lapsed

Please feel welcome to elaborate

YOUR JOURNEY in South Africa's architectural profession.

professional memberships

Complete this, even if your registration is lapsed. My SACAP registration category is (or was):

	I'm eligible to register as...
Draftsman	
Architectural Technologist	
Senior Architectural Technologist	
Architect	
Specified category (building control)	

Comments

---

professional memberships
In your career, which of the following, if any, occurred as a result of a *change* ***in your professional registration status?***

- [ ] I received a promotion
- [ ] I received a raise
- [ ] I had new opportunities within the practice
- [ ] I was made a supervisor or mentor
- [ ] My practice, team and supervisor acknowledged and celebrated my accomplishment
- [ ] I started my own practice and /or to work independently
- [ ] I took a position with another practice
- [ ] Other (please specify)

Why did you initially pursue registration? Tick up to three

- [ ] Legal compliance
- [ ] Opportunity for employment
- [ ] Opportunity for promotion
- [ ] The ability to have my own architectural practice or to work independently

☐ The ability to call myself a professional

☐ Respect from peers, family and friends

☐ The potential to earn more money

☐ To improve prospects with investors, clients and in the marketplace

☐ Pragmatic considerations - such as council submissions, assuming professional responsibility etc.

Other (please specify) _____

Which recognised professional Voluntary Association/s do you belong to currently?

☐ None

☐ South African Institute for Architects

☐ Border Kei Institute for Architects

☐ Cape Institute for Architects

☐ SAIA - Eastern Cape Institute of Architects

☐ SAIA - Free State Institute of Architects

☐ Gauteng Institute for Architects

☐ KwaZulu-Natal Institute for Architects

☐ Pretoria Institute for Architects

☐ Freedom Architecture Consulting Empowerment

☐ The African Institute of Interior Design Professions

☐ South African Institute of Architectural Technologists

☐ South African Institute of Draughtsmen

☐ South African Institute of Building Design

☐ Limpopo Institute for Architects

☐ Mpumalanga Region of the South African Institute of Architects

☐ Northern Cape Region of the South African Institute of Architects

☐ Please feel free to elaborate on why or why not

Which, if any, unrecognised professional interest group/s (e.g. Women in Architecture) do you belong to?

ARCHIculture - this is the second last section of the survey...
In your opinion, which are the *three most important character or personality traits* ***necessary in the architectural profession?***

Select** three values **from the list below you consider most useful in the architectural profession. Only select the top three

Adaptability	
Stability	
Being reflective	
Being innovative	
Quick to take advantage of opportunities	
Taking individual responsibility	
Autonomy	
Being rule oriented	
Being analytical	
Paying attention to detail	
Confronting conflict directly	
Being team orientated	

Sharing information freely	
Being people oriented	
Fairness	
Not being constrained by many rules	
Resilience	
Informality	
Decisiveness	
Being competitive	
Being highly organized	
Achievement orientation	
Passion	
Perseverance	

Thinking about** public's perception **of architectural practice, please rate your level of agreement with the following statements:

	strongly disagree	disagree	neutral	agree	strongly agree
South Africans appreciate architecture	○	○	○	○	○
Architectural professionals are generally valued in South African society	○	○	○	○	○
Processes of producing buildings and architects' role in these are understood and appreciated by the **general public** in South Africa	○	○	○	○	○
Architectural professionals are fairly represented in the media	○	○	○	○	○
South African architectural professionals are visible and well represented on social media platforms	○	○	○	○	○

Please feel welcome to elaborate

Select all that apply: It is important to me to identify people similar to myself (gender, ethnicity and age) in the professional workplace, among

- ☐ peers and colleagues
- ☐ supervisors and seniors
- ☐ subordinates
- ☐ professional role-models

- [ ] local star architects
- [ ] international star architects
- [ ] professional bodies (SACAP etc.)
- [ ] professional Voluntary Associations
- [ ] professional online communities

Comments

What** discrimination or prejudice, **have you PERSONALLY encountered in the architectural professional workplace? Distinguish between experiencing first hand as either victim or beneficiary or witnessed first hand among third parties. Select all that apply

	personally experienced (victim)	personally benefited	witnessed first hand
Age	☐	☐	☐
Disability	○	○	○
Gender identity	○	○	○
Sexual orientation	○	○	○
Race or ethnicity	○	○	○
Religious belief	○	○	○
Language	○	○	○
National origin/ xenophobia	○	○	○
Pregnancy	○	○	○
Sexual harassment	○	○	○
Nepotism or favouritism	○	○	○
Gender pay gap	○	○	○
Race pay gap	○	○	○
BBBEE / affirmative action	○	○	○

	personally experienced (victim)	personally benefited	witnessed first hand
Tokenism/ fronting			
None			

Overall, did you experience *architecture schools* ***(if relevant) as embracing principles of*** *diversity, inclusion and equity****?***

- Yes
- No
- Mixed experiences

Other (please specify)

Overall, did you experience *architecture practice* ***(if relevant) as embracing principles of*** *diversity, inclusion and equity****?***

- Yes
- No
- Mixed experiences

Other (please specify)

YOUR JOURNEY in South Africa's architectural profession.
last section... tell me a bit about yourself

What year were you born?

Highest level of formal education in your immediate family growing up

- Primary School
- Matric
- Tertiary qualification
- None of the above

Other (please specify)

YOUR JOURNEY in South Africa's architectural profession.

Reflect on when you were growing up. Tick all that apply

- Our family and close friends included professionals
- Our family and close friends included design professionals
- Socially, we knew people in the construction or building industry
- I witnessed construction or design projects whilst growing up
- I travelled and saw different places
- Some of the experiences listed above, definitely influenced my choice of career path

Which best characterises the type of environment where you spent your *school-going years****?***

- Informal settlement
- Township
- Suburbia
- Inner city
- Peri-urban or rural

Prefer to self-define?

YOUR JOURNEY in South Africa's architectural profession.

Tick all that apply: I relocated

- [ ] to access architectural studies
- [ ] to access work/ employment opportunities
- [ ] for socio-political reasons unrelated to the profession
- [ ] for personal reasons, such as place preference or following relationships
- [ ] not applicable

Are you *ordinarily resident* ***in South Africa?***

- ○ Yes
- ○ No

If it's complicated you are welcome to elaborate here...

Number of *dependents****?***

YOUR JOURNEY in South Africa's architectural profession.

What is your current gross *annual income****?***

- ○ Not applicable
- ○ Below R 200 K
- ○ R 201 K - R 350 K
- ○ R 351 K - R 500K
- ○ R 501 K - R 750 K
- ○ R 751 K - R 999K
- ○ R 1 M - R 1.5 M
- ○ Above R 1.5 M
- ○ I would prefer not to say

Of your income indicated above what *portion* ***is*** *attributable to classic practice****? Classic practice is defined as the activities defined in SACAP's standard***

scope of works, and time spent directly supporting those activities, such as office management, business development, and CPD.

0% 100%

YOUR JOURNEY in South Africa's architectural profession.

What** gender **do you identify as? Ignore this question if you prefer not to say

What** race(s) and ethnic group(s) **do you identify with? Ignore this question if you prefer not to say

What** citizenships and work permits **do you currently hold?

What** language **is mostly spoken at** home**?

What** language **is mostly spoken at** work**?

Disability?

- Yes
- No
- Please feel welcome to elaborate

Tick all that apply: I felt reasonably secure to express myself authentically in the learning or working environment

- During my architecture studies
- During candidacy
- In professional practice

Feel welcome to elaborate

Tick all that apply: I belong

- ☐ to my neighbourhood
- ☐ to my community
- ☐ to my practice/ place of employment
- ☐ to the architectural profession
- ☐ as an engaged/active alumnus to the architecture school(s) where I studied
- ☐ as a valued resident or citizen of South Africa
- ☐ to an international or global community of architects
- ☐ to a faith community

«

YOUR JOURNEY in South Africa's architectural profession.

Three questions left to the end of the survey: Do you have any notable detours, *or formative experiences* ***to share on your professional journey?***

Do you have any comments, thoughts or suggestions to share on the topic of *diversity, inclusion and equity* ***in the South African architectural profession?***

Lastly, do you have any comments, thoughts or suggestions to share on the topic of *retaining professionals* ***in architecture?***

«

YOUR JOURNEY in South Africa's architectural profession.

graduates not currently in the profession

Are you currently a student?

- ○ Yes
- ○ No

YOUR JOURNEY in South Africa's architectural profession.

Are you retired?

- ○ Yes
- ○ No

intent to enter profession after study

When your studies are complete, do you intend to enter the profession?

- ○ Yes
- ○ No (if this is selected please elaborate in the text box below)

Comments

When did you exit the profession?

- ☐ Whilst still studying at university
- ☐ While searching for employment
- ☐ While employed in an architecture practice
- ☐ After taking the professional practice exam
- ☐ As a candidate
- ☐ As a professional

Other (please specify)

What informed** your leaving the profession**?

- ☐ Lack of open positions or employment opportunity
- ☐ Pay or compensation
- ☐ Work / life balance
- ☐ Personal obligations
- ☐ Practice culture

- [ ] Found a better opportunity
- [ ] Costs of practice
- [ ] Registration requirements
- [ ] Liability, risk or exposure to litigation
- [ ] I am no longer interested in architecture
- [ ] Other (please specify below)

Please feel welcome to elaborate

Are you currently working or employed in another field?

- ○ Yes
- ○ No

YOUR JOURNEY in South Africa's architectural profession.

What field(s) are you working in now?

- [ ] Landscape architecture
- [ ] Interior design
- [ ] Project management
- [ ] Real estate
- [ ] Public sector
- [ ] Town, regional or urban planning
- [ ] Academia or research (not focussed on space, place, buildings or the built environment)
- [ ] Rendering and visualisation
- [ ] Green building
- [ ] Construction
- [ ] Entertainment, events or hospitality

Other (please specify)

«

YOUR JOURNEY in South Africa's architectural profession.

Would you consider returning to the architectural profession?

- ○ Yes
- ○ No

Please feel welcome to elaborate on the conditions under which you might return

«

graduates who never registered

What informed** your decision not to register with SACAP**?

- ☐ Not eligible
- ☐ No longer in the profession
- ☐ Costs (registration fees, cost of exams etc.)
- ☐ CPD requirement
- ☐ I do not require registration for my professional activities (please elaborate below)

Other (please specify)

When did you decide not to formally register with SACAP?

- ☐ Whilst still studying at university
- ☐ While searching for employment
- ☐ While employed in an architecture practice
- ☐ After taking the professional practice exam
- ☐ As a candidate
- ☐ As a professional

Other (please specify)

«

graduates never entering the profession

Are you currently a student?

- ○ Yes

No

Are you retired?

Yes

No

When your studies are complete, do you intend to enter the profession?

Yes

No (if this is selected please elaborate in the text box below)

Comments

not currently in practice

What field(s) are you working in now?

Landscape architecture

Interior design

Project management

Real estate

Public sector

Town, regional or urban planning

Academia or research (not focussed on space, place, buildings or the built environment)

Rendering and visualisation

Green building

Construction

Entertainment, events or hospitality

Not applicable

Other (please specify)

Please feel free to elaborate on your professional journey

«

lapsed professional registration

What informed *your decision to allow professional registration to lapse****?***

- [ ] Not eligible
- [ ] No longer in the profession
- [ ] Costs (registration fees, cost of exams etc.)
- [ ] CPD requirement
- [ ] I do not require registration for my professional activities (please elaborate below)

Other (please specify)

When did your registration lapse?

- [ ] Whilst studying at university (post-graduate)
- [ ] While searching for employment
- [ ] While employed in an architecture practice
- [ ] After taking the professional practice exam
- [ ] As a candidate
- [ ] As a professional

Other (please specify)

«

building control

What attracted you to building control?

Indicate the closest category which matches *your current capability,* ***irrespective of whether you are employed, registered etc.***

- ○ Chartered Building Surveyor / Officer
- ○ Chief Building Officer/ Surveyor
- ○ Senior Building Officer/ Surveyor
- ○ Building Officer/ Surveyor
- ○ Building Inspector/ Assessor III
- ○ Building Inspector/ Assessor II

Building Inspector/ Assessor

Unsure/ other (please elaborate below)

Comments

Currently, what portion of your professional work** time **do you allocate to {{ Q11 }}?

0 hours a day typical time spent on {{ Q11 }} 16 hours or more a day

What professional activities, if any, do you spend the** remainder **of your allocated work time on?

Before embarking on building control, did you work in practice?

Yes

No

YOUR JOURNEY in South Africa's architectural profession.

informed consent

Thank you for participating in the survey.

By pressing 'submit', you confirm consent to participate in the study.

Please feel free to share this link with other South Africans who embarked on a career in architecture, even if they are no longer in the profession.

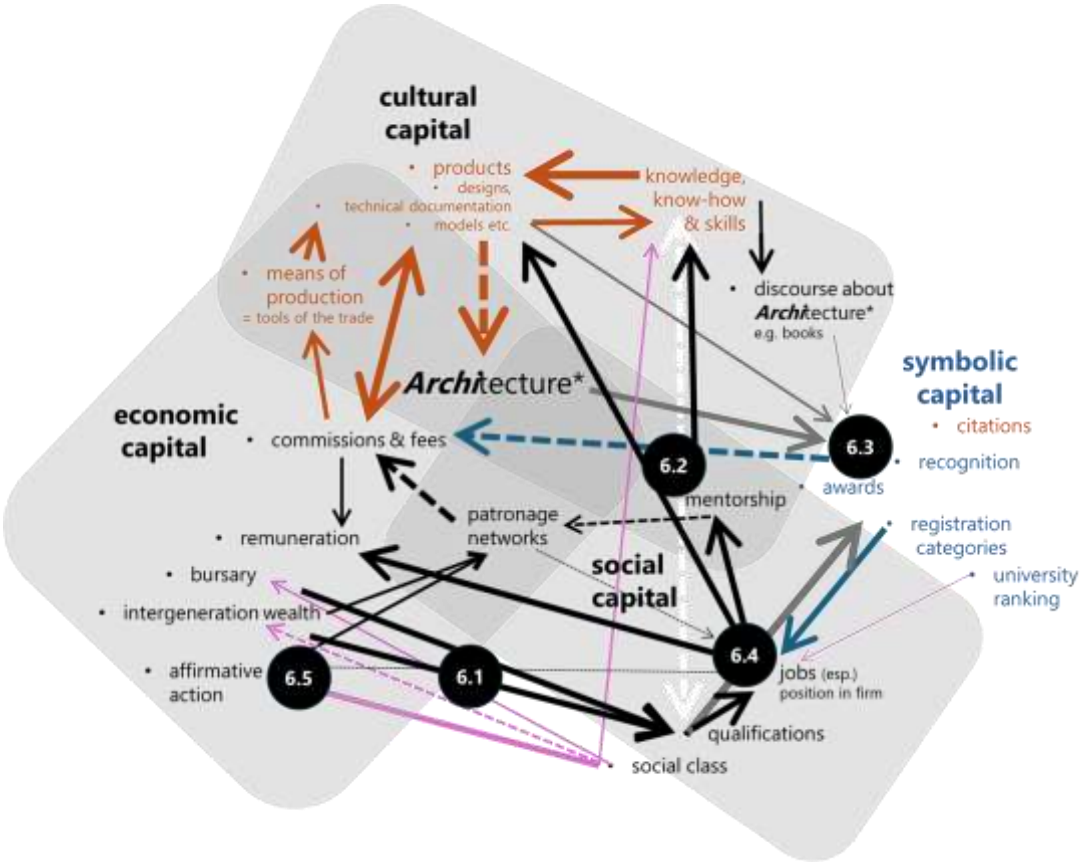
If you have any questions about this research, feel free to contact the researcher at pdejager@csir.co.za.

If you have any concerns or complaints regarding the ethical procedures of this study, you are welcome to contact the University Human Research Ethics Committee (Non-Medical), telephone +27(0) 11 717 1408, email hrecnon-medical@wits.ac.za.

Appendix E – an autoethnographic account of thesis topic selection: and the subjective salience of its themes to my life story

[Redacted – available on request]

Appendix F – capital flows summary



Map of capital flows, as set out in *6 CAPITAL AND ITS FLOWS* on *page 214*.

The capital flows are overlaid on the Model for Distinction (*1.5.2 A model for distinction* on page *33*):

- Arrows imply the dominant directionality of flows
- Three thicknesses of line:
    - Fine - an important relationship has been identified, but its effect size is diminished
    - Medium - a moderate effect size is apparent
    - Heavy - a very strong (generally decisive relationship) with a strong effect size or dependency
- Dotted lines – uncertainty, gamble or risk associated with the connection/ capital flow
- Five colours of line are used (these may change depending on the current frame):
    - Brick - identified tradeable assets not discussed in this thesis
    - Purple - antecedent to the frame
    - Grey - subsequent to the frame
    - Black – central capital flows in the frame under consideration
    - Blue – symbolic capital, per Bourdieu, 'misrecognition'.

Findings of estimated effect and trajectory sizes from ~2000 to ~2019 are summarised in *Table 25*.

Table 25: Summary of capital exchange examples of chapter six

		Effect	Trajectory	
6.1 economic --> cultural & social	♀	o	→	NSFAS & intergenerational mobility unaffected by gender, trajectory ~stable
	♂	o	→	NSFAS & intergenerational mobility, trajectory ~stable
	black^	+	↗	Better access to NSFAS – but hardly utilised for architectural studies (low effect size), major increase in NSFAS funding between 2000 to 2019, upward trajectory
	white	++	↗	Better off economically through intergenerational wealth (accrued economic capital), invested in degrees, trajectory upwards but less steep -> 2019 due to overall economic performance
6.2 social --> cultural[1]	♀	--	↘	Unemployment of graduates disproportionately affects women, and increased
	♂	-	↘	Unemployment of graduates affected everyone and increased (lower effect size for males)
	black^	---	↘	Unemployment disproportionately affects black^ graduates, and increased
	white	-	↘	Unemployment of graduates affected everyone and increased (lower effect size for whites)
6.3 cultural --> symbolic[2]	♀	--	↘	Fewer women^ participants in competitions, lower VA participation
	♂	+	↘	Benefit from low competition
	black^	---	↘	Fewer black^ participants in competitions, lower VA participation
	white	++	↘	Benefit from low competition
6.4 symbolic --> economic[3]	♀	++	↗	Access to higher status professional categories by access to postgrad, gender pay gap
	♂	+++	→	Access to higher status professional categories by access to postgrad
	black^	++	↗	Reduced access to postgrad, NSFAS & black tax
	white	+++	→	Access to higher status professional categories by access to postgrad
6.5 social --> economic[4]	♀	?	↗	B-BBEE targeted to benefit women, but effect size diminished as APs often exempt/ ignore it
	♂	?	→	B-BBEE neutral/ negative to men, but participation via empowerment of others was possible
	black^	?	↗	B-BBEE targeted to benefit black^ APs, but effect size diminished as APs often exempt/ ignore it
	white	?	→	B-BBEE neutral/ negative to whites, but participation via empowerment of others possible

Notes:

1. Un/employment presented as indicator not assumed to be causal

2. Few publications, few competitions after initial spate

3. Remuneration virtually unchanged between 2000 and 2019 = key is access to higher status registration categories = postgraduate studies (as RPL ineffectual)

4. Reliable data lacking on effect size

Appendix G – ethics approvals

UNIVERSITY OF THE WITWATERSRAND JOHANNESBURG

Research Office

HUMAN RESEARCH ETHICS COMMITTEE (NON-MEDICAL)
R14/49 de Jager

CLEARANCE CERTIFICATE	**PROTOCOL NUMBER: H22/01/03**
PROJECT TITLE	Attrition and transformation in South Africa's architectural professions: race, gender, and belonging, 2010-2019
INVESTIGATOR(S)	Mrs P de Jager
SCHOOL/DEPARTMENT	School of Architecture and Planning/
DATE CONSIDERED	28 January 2022
DECISION OF THE COMMITTEE	Approved Risk Level: Minimal
EXPIRY DATE	03 April 2025

DATE 19 December 2022 **CHAIRPERSON** (Professor J Watermeyer)

cc: Supervisor : Professor H le Roux

DECLARATION OF INVESTIGATOR(S)

To be completed in duplicate and **A SIGNED COPY** returned to the Secretary electronically. Unreported changes to the application may invalidate the clearance given by the HREC (Non-Medical)

I/We fully understand the conditions under which I am/we are authorized to carry out the abovementioned research and I/we guarantee to ensure compliance with these conditions. Should any departure be contemplated from the research procedure as approved I/we undertake to submit an amendment of the protocol to the Committee. **I/we agree to completion of a regular progress report. For Minimal and Low Risk studies, this is due annually on 31 December. For Medium and High Risk studies, this is due twice annually on 30 June and 31 December.**

Signature 21 Feb 2023 **Date**

PLEASE QUOTE THE PROTOCOL NUMBER ON ALL ENQUIRIES

CSIR Research Ethics Committee
PO Box 395 Pretoria 0001 South Africa
Tel: +27 12 841 4060
Fax: +27 12 841 2476
Email:RandDEthics@csir.co.za

Review report

11 April 2022

Dear: **Peta De Jager**

RE: **Attrition and transformation in South Africa's architectural professions: race, gender and belonging, 2010-2019, (CSIR REC Ref: 387/2022).**

Thank you for submitting your responses to the CSIR Research Ethics Committee's (REC) review report dated March 30, 2022. Your responses were reviewed by the CSIR REC in its review meeting of April 07, 2022. The CSIR REC wishes to commend the principal investigator (PI) for the well-presented submission and comprehensive responses. The responses were found to be in order. The committee grants permission for the project to proceed, with the following comments:

- It is noted that the current project is towards a PhD qualification and has been submitted to the University of Witwatersrand Human Research Ethics Committee (HREC Non-Medical) for research ethics approval. The PI should submit this approval letter for our records as soon as received.
- The signed permission letter to access and analyse current and historic SACAP documentation for the purposes of studying demographic transformation in the architectural profession from South African Council for the Architectural Profession is duly noted by the CSIR REC.

We wish you all the best with your research project.

Kind regards,

Dr Teedzai Chitura
CSIR REC Chair

CSIR Research Ethics Committee
PO Box 395 Pretoria 0001 South Africa
Tel: +27 12 841 4060
Fax: +27 12 841 2476
Email:RandDEthics@csir.co.za

Permission certificate

11 April 2022

Dear Peta De Jager

RE: **Attrition and transformation in South Africa's architectural professions: race, gender and belonging, 2010-2019, (CSIR REC Ref: 387/2022).**

The CSIR REC duly notes that the current research project is towards a PhD qualification and has been submitted to the University of Witwatersrand REC where the qualification is registered in line with the provisions of Case scenario 2 of the CSIR REC SOP (Section 6.2; Table 3) November 2021. The CSIR REC grants provisional permission for the research to proceed pending receipt of the of the University of Witwatersrand Human Research Ethics Committee (HREC Non-Medical) research ethics approval certificate.

Kindly note that you are required to submit **bi-annual progress reports** to the CSIR REC and a **final report** on completion of the research in which you indicate (i) that the research has been completed; (ii) if any new or unexpected ethical issues emerged during the study; and if so, (iii) how these ethical issues were addressed.

We wish you all the best with your research project.

Kind regards,



Dr Teedzai Chitura
CSIR REC Chairperson