To be able to criticise we must listen – especially to the first year student who may be able to help us to re-mythologise our thought processes to such an extent that we will be able to teach with conviction. (Le Roux 2006:99)

CHAPTER 6 SELECTION PRACTICES FOR ADMISSION TO STUDIES IN ARCHITECTURE AT THE UNIVERSITY OF PRETORIA: 2007-2016

6.1. SUBPROBLEM 4

In order to understand the context of the main problem we need to critically examine the trajectory of selection practices for the admission of beginner students in architecture at the University of Pretoria from 2007 until 2016.

6.2. SUPPOSITIONS TO SUBPROBLEM 4

The supposition to subproblem four is that the selection practices for the admission of beginner students in architecture at the University of Pretoria between 2007 and 2016 were specific to, and had a positive interrelationship with, teaching and learning in the programme for which students were selected.

6.3. OUTLINE OF CHAPTER 6

The major case study undertaken for this thesis is concluded in this chapter with the discussion of the most recent episode of the selection of beginner students in architecture at UP for the period between 2007 and 2016. During this time the researcher was responsible for the selection of beginner students in architecture at the Institution. As in the preceding chapter, this episode is again contextualised in terms of regulatory and academic indicators that framed selection practice, albeit that these indicators did not substantially change from those of the foregoing episode. The approach to selection, the procedures in general and the range of assessment tools employed did however change dramatically. The thinking

behind these changes, their implementation and application are discussed and contextualised; the results of review instruments for these procedures and the outcomes thereof are reflected on in this chapter.

6.4. OVERVIEW OF THE RELATED LITERATURE

The pertinent sources referred to in this chapter relate to the University, the Department and the procedures for the selection of beginner students in architecture that are reflected on in this chapter. For the former the admission regulation (UP 2007) that changed the procedures from those discussed in the foregoing chapter to the current one seems most significant. As in the previous episodes the official yearbooks of UP were very helpful in outlining the curriculum of the School. In this chapter specific reference is made of the 2016 course plan as documented in UP (2016a). Official statistics prepared by the Bureau for Institutional Research and Planning and its successor, the Department of Institutional Planning, provided the researcher with insights – those with which academic members of staff do not often engage (UP 2011a, 2011b, 2017a, 2017b).

Documents that relate to the visiting boards for the validation of the programmes offered by the Department have assisted the researcher in compiling notes on the academic context and intentions of the Department at various intervals. These include documents prepared by the Department (Department of Architecture 2012a, 2012b, 2017a, 2017b) for validation cycles and the official reports from validation bodies, such as the one by SACAP, CHE, CAA and RIBA (2008). In these instances the archive of the Department has proven to be invaluable as many of the sources consulted are housed there, including the researcher's earlier enquiries (Department of Architecture 2005, 2006) that shaped many of the procedures that are now in place. It is also the repository for the secondary data sources that were consulted, such as the annual student questionnaires (Department of Architecture 2016c, 2016d).

The memorandum that summarised the review of the procedures for selection at the Department proved its worth (Department of Architecture 2015b) as it précised the writing of this research. The pro forma documentation that records the selection procedures for the intake of the 2016 academic year, as archived in Department of Architecture (2015a), assisted as an aide memoir in creating a narrative thread as it was read as the culmination of efforts over a decade. Finally, references to aspects argued in earlier chapters of this thesis are again perused here.

6.5. EPISODE 3: SELECTION (2007-2016)

The academic year that launches this episode, 2007, saw the first intake of students who were selected according to a new selection procedure for admission to studies in architecture at UP. Enquiries and informal research that informed the procedure were initiated early in 2005 and put into practice late in 2006 when the cohort for 2007 was selected.

6.5.1. Regulatory framework (2007-2016)

The regulatory framework that was implemented following the promulgation of the Architectural Profession Act (No. 44 of 2000) – see Chapter 5.9.1 – had not substantially changed for the duration of the episode under review. Minor changes were made to the threshold for the registration of senior architectural technologists to differentiate between qualifications at NQF level 7 (see Table 2.2). Other developments, including the identification of work by the different categories of registered professionals and an ongoing debacle on the guidelines for professional fees (SACAP 2017), have had little direct impact on architectural education in South Africa.

6.5.2. Academic context (2007-2016)

The public debate, and outcry from some quarters, following Prof. 'Ora Joubert's inaugural address in 2004 placed the School, and the architectural profession in South Africa, in the spotlight. Her critique of "[…] the passé, stylistically dubious, climatologically irresponsible, superfluously decorated, clumsily proportioned and downright ugly buildings […]" (Burger 2006:41) generated awareness of the significance of contextually responsible design and stressed its value beyond the superficial and trendy. In many ways this echoed the values of the regionalist approach that characterised the School during its early years – see Chapter 5.5.4 – and was reinforced when the book she edited and convened, *10+ years 100+ buildings: Architecture in a democratic South Africa* (Joubert 2009), was published to great acclaim.

Joubert's tenure ended in August 2008 and once again Prof. Roger C. Fisher was appointed as acting Head until the appointment of Prof. Karel A. Bakker (1956-2014, see Appendix 3 for other biographical information) as Head was made official on 1 January 2009.

Bakker had a special interest in the architectural histories of African societies. Through his work with the International Council on Monuments and Sites (**ICOMOS**) and as advisor and consultant on world heritage projects, notably in Mauritius, Zanzibar, Uganda and Tanzania (Clarke 2014), the School built strong connections with these and other countries on the African continent and beyond. This was especially evident when the School co-hosted the international conference of the African Perspectives series under the banner *The African City Centre: [Re]sourced* (Bakker 2010). As an alumnus of the Department and long-serving lecturer he was intimately familiar with the academic and administrative workings of the institution and the School. This was advantageous at a time when the availability of financial resources was severely limited due to a worldwide economic collapse and a recession in the South African economy.

When Bakker passed away in November 2014 UP again called on Fisher to stand in as Head of Department. This ensured continuity and was reassuring to the members of staff and the student body. Prof. Chrisna du Plessis (see Appendix 3 for biographical information) was finally appointed as Head of Department at the beginning of October 2015, the same month that students started protesting against increased tuition fees at universities across South Africa. The first wave of protests culminated in a

student march to the seat of power, the Union Buildings in Pretoria, on 23 October 2015 (Nkosi 2015), after which the President of South Africa announced that university fees would not be increased for the following academic year. As the #FeesMustFall campaign continues at the time of writing, and in a climate of growing political uncertainty, resources at higher institutions of learning in South Africa remain severely strained. For academic members of staff the emphasis on research, which provides the institution with additional streams of funding, finally prevailed over their involvement in architectural practice. Inevitably it means that the chasm between the branches of architectural knowledge in practice, on the one side, and education and research, on the other, widens.

6.5.3. Academic intentions (2007-2016)

The strengths and points of interest of the School, cumulatively developed over the latter half of the twentieth century and discussed in the previous chapter, gained depth and traction during the decade under review. One can hardly imagine functioning in singular professional silos almost twenty years after Fisher's curriculum was implemented and on the eve of the Department's seventy-fifth anniversary in 2018. The final report by the visiting validation boards in 2008 already stated:

> The nature and character of the Architecture Department is strongly influenced by its broad spectrum of three integrated disciplines, Architecture, Landscape Architecture and Interior Design. These form a generic core underlying the structure and delivery of curriculum. Ecological and regional concerns are identified for exploration and development in student design projects in a way that is technically thorough and socially and environmentally responsible. (SACAP, CHE, CAA & RIBA 2008:6)

A review of the generic first year of study commenced in 2008 so as to give more prominence to the foundation skills upon which subsequent courses in the three disciplines could build (Botes 2012:125). It ensured an improved horizontal and vertical integration between studio-based projects and theory-based teaching and learning. Interdisciplinarity was further entrenched when, during Joubert's tenure, the generic design syllabus was extended to the middle of the second year of study so as to "[…] continue emphasising the correspondence between the three design disciplines" (UP 2007:69-70).

Bakker, writing to the SACAP visiting board in 2012, summarised the approach to teaching in the Department as having a golden thread that he defined as:

> An encompassing study of the discipline, academic rigour, a non-flag following independence in formulating what architecture – and the role of architecture – could be, an attempt to achieve and maintain dynamic balance in the architectural dualisms of art and science, theory and praxis, past and future, and a striving towards an integrative, traditive, generative design approach that results in a facilitating, contextually relevant architecture that sustains culture and social evolution. (Department of Architecture 2012a:4)

He added:

The Department's approach is eco-systemic and equifinal – rather than being eclectic, there is a directed search for appropriate theory and methodology for diverse problematiques. The Department believes in rounded education rather than training. The tuition in design is problem driven. A tradition of ecological, regional and historic concerns manifest in design explorations that are generative rather than formalistically, stylistically or iconically driven. The Department wants to retain its reputation for expertise in the techne of architecture to, within a broader normative position, underscore and direct the exploration and assessment of design responses, particularly at exit levels. Tectonics, as opposed to facile technical resolution, are encouraged throughout all the years of study. (Department of Architecture 2012a:4)

The Department's position, that it prepares students through an emphasis on a scholarly education, rather than through an exclusively vocational training, was repeated to the same panel (Department of Architecture 2012b:63).

Over the past decade teaching and research in the Department have increasingly been allied to defined research fields. Although it impacts more directly on the postgraduate programmes, it has unavoidably spilt over to the undergraduate courses. The concerns of the three fields of research were outlined as follows in Department of Architecture (2016b:1):

ENVIRONMENTAL POTENTIAL: The balance between human development needs and the environment's potential to serve or provide for these needs. Social consideration, environmental responsibility and economic equitability that results in regenerative design and development approaches, sustainable building methods, recycling and reuse of material, community benefits and environmental restoration.

HERITAGE AND CULTURAL LANDSCAPES: Diachronic and synchronic understanding and analysis of the ecology of the cultural environment with application in the design of the built environment. Solutions focus on appropriate building form and space referenced to the legal heritage frameworks and current best practice. Theory of the relationship between human and landscape and of heritage conservation. Recording, investigation, interpretation, representation and design response within the built environment regarding places, structures and artefacts of cultural significance and heritage value.

HUMAN SETTLEMENTS AND URBANISM: Investigation into the current socio-spatial conditions of our urban environments that are influenced by economic migration, political redress and environmental distress. Design and intervention strategies are aimed at the enablement of emergent social structures and the integration into existing urban and natural processes with potential emotional ownership and reinvestment by the inhabitants. Engagement with communities of interest contributes to a participatory research process underpinning these investigations.

Within this broad framework the academic offering of the Department has been subject to ongoing review, also under the leadership of Du Plessis whose extensive experience in sustainability in the built environment and the development of human settlements as sustainable social-ecological systems is contributing to the School's endeavours in these fields. Important aspects pertaining to the formal curriculum for this period are discussed in the following section.

6.5.4. Curriculum (2007-2016)

During the period under review the curriculum saw some evolutionary changes and refinements, rather than the major revisions of the 1990s – see Chapter 5.9.4. The changes affected institution-wide advances in Computer and Information Literacy through which new courses in Academic Information Management in the first year of study were introduced. A Joint Community-based Project was introduced into all undergraduate academic programmes offered by the Faculty of Engineering, Built Environment and Information Technology at UP with the following objectives:

1. The execution of a community related project aimed at achieving a beneficial impact on a chosen section of society, preferably but not exclusively, by engagement with a section of society which is different from the student's own social background.
2. The development of an awareness of personal, social and cultural values, an attitude to be of service, and an understanding of social issues, for the purpose of being a responsible professional.
3. The development of important multidisciplinary and life skills, such as communication, interpersonal and leadership skills. (UP 2016a:83)
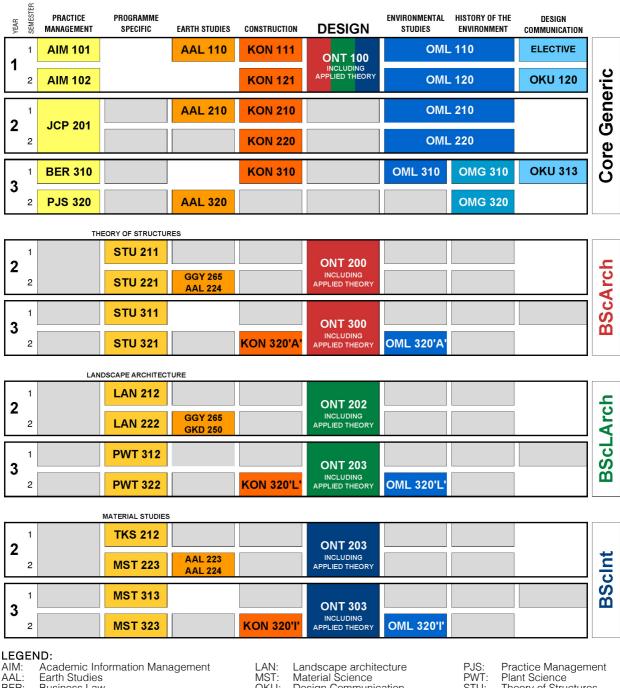
The ongoing research in human settlements by Dr Carin Combrinck (2015), like that of Prof. Amira Osman before her, has opened more opportunities for active engagements with communities such as those living in informal settlements. As a result, at the time of writing, community projects similar to the Joint Community-based Project are being implemented in all years of study, to involve students from the undergraduate and professional postgraduate programmes. It is foreseen that this initiative will, in future, be even more explicitly defined as a component of the curriculum.

Minor structural adjustments were required to accommodate effective resource deployment and to underscore especially horizontal integration between the studio and other modules presented in each year of study. Where Design was previously presented as two semester courses per academic year, it has now been configured for yearlong presentation so as to facilitate more continuity in the studio. The applied components of theory have been reassigned to the studio-coordinators in an effort to improve integration between design explorations and architectural theory. Effectively this has led to the courses in History of the Environment and Environmental Studies to be combined during the first two years of study. Logistical considerations and the balancing of credit values influenced other changes.

From 2009 onwards the requirements for promotion to the second and third years of study were raised and supplementary examinations were reintroduced for some first year courses (excluding Design) so as to assist students with the transition to tertiary learning (UP 2009:11, 13-14). Partly motivated by the prevailing economic climate, supplementary examinations were extended to some second year courses (excluding Design) in 2011 as an incentive to accommodate deserving students (UP 2011d:11-12).

Table 6.1 provides a summary of the core curriculum presented in 2016 with the components of the generic core curriculum indicated with those for the undergraduate programmes in architecture (BScArch), Landscape Architecture (BScLArch) and Interior Architecture (BScInt).

TABLE 6.1: Course diagram of the core curriculum for the undergraduate degrees in 2016 after UP (2016a:14-33)

Core Generic

YEAR	SEM	PRACTICE MANAGEMENT	PROGRAMME SPECIFIC	EARTH STUDIES	CONSTRUCTION	DESIGN	ENVIRONMENTAL STUDIES	HISTORY OF THE ENVIRONMENT	DESIGN COMMUNICATION
1	1	AIM 101		AAL 110	KON 111	ONT 100 INCLUDING APPLIED THEORY	OML 110		ELECTIVE
1	2	AIM 102			KON 121		OML 120		OKU 120
2	1	JCP 201		AAL 210	KON 210		OML 210		
2	2	JCP 201			KON 220		OML 220		
3	1	BER 310			KON 310		OML 310	OMG 310	OKU 313
3	2	PJS 320		AAL 320				OMG 320	

BScArch — THEORY OF STRUCTURES

YEAR	SEM		PROGRAMME SPECIFIC	EARTH STUDIES	CONSTRUCTION	DESIGN	ENVIRONMENTAL STUDIES		
2	1		STU 211			ONT 200 INCLUDING APPLIED THEORY			
2	2		STU 221	GGY 265 AAL 224					
3	1		STU 311			ONT 300 INCLUDING APPLIED THEORY			
3	2		STU 321		KON 320'A'		OML 320'A'		

BSclLArch — LANDSCAPE ARCHITECTURE

YEAR	SEM		PROGRAMME SPECIFIC	EARTH STUDIES	CONSTRUCTION	DESIGN	ENVIRONMENTAL STUDIES		
2	1		LAN 212			ONT 202 INCLUDING APPLIED THEORY			
2	2		LAN 222	GGY 265 GKD 250					
3	1		PWT 312			ONT 203 INCLUDING APPLIED THEORY			
3	2		PWT 322		KON 320'L'		OML 320'L'		

BSclnt — MATERIAL STUDIES

YEAR	SEM		PROGRAMME SPECIFIC	EARTH STUDIES	CONSTRUCTION	DESIGN	ENVIRONMENTAL STUDIES		
2	1		TKS 212			ONT 203 INCLUDING APPLIED THEORY			
2	2		MST 223	AAL 223 AAL 224					
3	1		MST 313			ONT 303 INCLUDING APPLIED THEORY			
3	2		MST 323		KON 320'I'		OML 320'I'		

LEGEND:

AIM:	Academic Information Management	LAN:	Landscape architecture	PJS:	Practice Management
AAL:	Earth Studies	MST:	Material Science	PWT:	Plant Science
BER:	Business Law	OKU:	Design Communication	STU:	Theory of Structures
GGY:	Geomorphology of the Built Environment	OMG:	History of the Environment	TKS:	Textiles
GKD:	General Soil Science	OML:	Environmental Studies		
KON:	Construction	ONT:	Design		

In summary the curricular principles for the core subject courses, other than Design, offered to undergraduate students in 2016 were outlined as follows:

> EARTH STUDIES: We think eco-systemically – that is to think of a system as nested, each as part of a larger system; made up of sub-systems and a part of a supra-system. These sub-systems can develop properties that are emergent properties and are properties of the supra-system. Properties of the subsystems do not predict those of the supra-system nor does that supra-system necessarily directly reflect the properties of their embodied subsystems. All things are natural, as so, subject to natural law. This includes human activities. (Department of Architecture 2017b:8, based on a portion of Fisher & Clarke 2011:20)

CONSTRUCTION: The study of construction theory, materials and methods is seen as an extension of the design process to enable the designer to give built form, tangible expression and realisation to an architectural concept. (Department of Architecture 2017b:18)

HISTORY OF THE ENVIRONMENT: The study of the history of the environment is seen as a process wherein past cultural production can be understood synchronically in context, as well as diachronically in order that such understanding may be utilised in the construction of new culture, and specifically architectural discourse, cultural landscapes, place, settlement and architecture. (Department of Architecture 2017b:36)

ENVIRONMENTAL STUDIES: Architectural theory is seen as the staging post, the provisional place of reflection and a continuous project. It is omnipresent – every designer knowingly or not uses some intersection of theory every time they design, document, discuss or speculate. (Department of Architecture 2017b:50)

The aim of any selection procedure is ultimately align with, and facilitate access to, these principles.

6.5.5. Requirements for admission (2007-2016)

For the 2007 and 2008 academic years the minimum requirements for admission remained unchanged from those of the previous episode, namely a certificate of matriculation exemption with university admission and at least 40% in both Mathematics and Physical Science on the Higher Grade or, alternatively, 50% on the Standard Grade (UP 2007:1). In addition the required Matriculation Score was 20 for Grade 11 and 18 out of a possible 30 for Grade 12. For historically disadvantaged applicants these scores remained two points lower on each count.

These requirements were reviewed from the intake of 2009 onwards as the first applicants who matriculated with a NSC under the Outcomes Based Educational (**OBE**) system completed their schooling in 2008. OBE was the first major policy innovation in basic education by the democratic government and its grading system was adopted as the basis for the new APS that replaced the Matriculation Score as an indicator of overall academic achievement. With this revised system allowance was also made for different levels of higher education outcomes that a matriculant may pursue based on subject choice and academic achievements – see Chapter 4.6.3. The NSC differentiates between admission to studies with higher certificate, diploma and bachelor's degree outcomes; the latter category has been a minimum requirement for admission to the programmes offered by the Department.

The following example illustrates the new rating system and the calculation of the APS:

Points for marks obtained in end-of-year exams are as follows:

MARK OBTAINED	RATING	POINTS
80-100%	Outstanding achievement	7
70-79%	Meritorious achievement	6
60-69%	Substantial achievement	5
50-59%	Adequate achievement	4
40-49%	Moderate achievement	3
30-39%	Elementary achievement	2
0-29%	Not achieved	1

Calculate the APS by adding the points awarded per subject according to the following formula:
Language of University instruction + Other language + Mathematics + Physical Science + two other subjects (excluding Life Orientation)

Example of APS Calculation

PRESCRIBED SUBJECTS	SYMBOL	POINTS
SUBJECT GROUP A		
Home Language	82	7
Language at First Additional Level	65	5
Mathematics	58	4
Life Orientation	72	-
SUBJECT GROUP B		
Physical Science	63	5
OTHER SUBJECTS		
for example Life Sciences	76	6
for example Accounting	55	4
TOTAL APS		**31**

Only six values are used in this formula, which means that the maximum possible APS is 42 for six subjects passed with an Outstanding Achievement rating (above 80%).

Although a minimum rating of 4 (50%) in Life Orientation is required for obtaining a National Senior Certificate with admission for degree purposes, this subject it is not taken into consideration in the calculation of the APS. (Department of Architecture [sa]:2)

The minimum APS required for admission was benchmarked at 27[1] out of a possible 42, while the subject requirements were standardised to a minimum of 50% in both Mathematics and Physical Science as the previous system of Higher and Standard Grade fell away in OBE. A language requirement was added that set the bar at 60% for either of the languages of instruction at UP. This was mostly informed by the traditive view held in the Department that value language skills. In all probability this position stems from Herholdt's (1972:186-187) findings – see Chapter 5.7.9. No distinction is made between the requirements set for an applicant's results for Grade 11 or Grade 12 as was previously the case. These minimum requirements for admission have since been retained.

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1   For the sake of context, an applicant should have an APS of at least 35 to be considered for admission to the programmes of the School for Engineering at UP (UP 2016b:1-2).

The intake was revised for the 2015 and subsequent academic years to align it with the available resources at the time and to address a 'bottleneck' between the previous higher intake for the undergraduate programmes and lower intake for the professional postgraduate programmes (Department of Architecture 2017a:6). Subsequently the number of places allocated to the combined first year has been 100 (as apposed to the previous number of 120), of which half still goes to the programme in architecture and the remainder is equally split between landscape architecture and interior architecture.

6.5.6. Renewed interest in selection specific to the programme in architecture

The academic records of applicants, expressed as a Matriculation Score since 2000, served as benchmark to determine the selection of beginner students in architecture at UP during the previous episode of this case study. Joubert, like her predecessors – Burger, when he commissioned research on selection in the late 1960s, Holm[2] and Le Roux[3] – expressed her concern about using an academic record as the sole basis for selection and appointed the researcher to review the procedure for undergraduate selection in 2005. Her concern was that the prevailing generalist approach to selection overlooked the specific nature of architectural education and therefore she suggested that a more substantial assessment routine was required. At the time the perception among many members of staff was that some students, who were possibly not ideally suited to pursue studies in design, were automatically admitted through the Matriculation Score and that this, in turn, skewed the demographic composition of the student body in favour of white female applicants based on their academic records.

6.5.7. Principal considerations in the redesign of selection procedures

In response to Joubert's request the researcher launched an informal investigation that initially focussed on preliminary (and often intuitive) explorations, logistics and institutional pragmatics, case studies and consultations with students and other members of staff. The discovery process was also informed by data on recent admissions to the Department and the academic progress of registered students (Department of Architecture 2005, 2006) – see Chapter 5.9.9.

The first short-term objective was clearly to redirect the selection project from the prevailing generalist approach to one that was compatible with and appropriate to the ethos and specific academic offering of the School. At the same time it was imperative that selection be transformed to an inclusive process so as to offer all applicants who meet the minimum requirements for admission an equal opportunity to compete for a place in the programme. Over the medium-term the goal was to stabilise student numbers in the Department and to align them to the available resources. This was necessary as the size of the student

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2   As part of a request for funding to investigate selection criteria, Holm writes: ["We are increasingly unsure if matriculation results are satisfactory predictors for university performance."], translated from the original Afrikaans text in Departement Argitektuur (1987): "*Ons is al gaande onseker of die matrikulasie-uitslae 'n bevredigende voorspeller vir Universiteitsprestasie is.*"

3   Le Roux (2005:8): "We will keep record of everything – to assist us in an attempt to work out a system for future selection of first year students. I have already begun with an investigation to determine the possible relationship between the fabled M-Score, the weight of languages in its calculation and proven success in the courses."

body fluctuated somewhat due to unpredictable attrition rates and the intake of an excess number of students in some calendar years in an attempt to compensate for anticipated dwindling numbers – see Chapter 5.9.9. In the long-term it was vital that the demographic representivity of the student body be addressed as the quota system previously had little effect in this regard (Department of Architecture 2005:2).

At the outset the legacy of Apartheid education and its continuing impact became a significant consideration. An applicant's school results often revealed a great deal about the quality of the education that he or she received and the resources available to the school that a learner attends, as was argued by, among others, Jansen (2011). While the Matriculation Score was purportedly to serve as an equal-opportunity formula, in reality it failed to do so. Historical discrimination coupled with unequal opportunities therefore cast serious doubt on the value of a generic score as an absolute decider, at least "[…] until schooling in South Africa is placed on an equal footing and is proved to prepare students adequately for tertiary education" (Van der Merwe & De Beer 2006:558).

Based on a steadily increasing number of applications, all indications were that competition would be fierce and it appeared that there would not be a shortcut that would easily determine the strongest candidates for admission. An in-principle decision was taken to dismiss the singular benchmark for admission as it became clear that an academic record, in isolation, did not show a strong relationship with the core competencies expected of prospective students of architecture. Alternative means were thus required to appropriately assess their capabilities.

The vast majority of beginner students are neophytes to architecture and therefore do not have an adequate understanding of the architectural profession – see Chapter 3.5. This is particularly relevant in our post-Apartheid context and in a developing economy where architects are 'hidden professionals' (Janse van Rensburg 2015:7). It was therefore decided to structure any future selection process in such a way that it allowed applicants to discover the disciplines for themselves and, by doing so, to allow them to benefit from informed opinions based on first-hand experience. In light of SACAP's directive that schools of architecture nurture their own identities and value systems, it was decided that the process, on the whole, should reveal to the applicants the School's specific approach to teaching and learning in order that they be better informed as to their future choices.

The notion of a formulaic ideal applicant profile was rejected outright as this would be contrary to the ecosystemic approach and principles of process-driven generative design to which the Department subscribes and for which its graduates are valued. Adhering to the values of multiple possibilities, as recommended by Le Roux (2006:98), every effort had to be made to identify all-rounders with a broad, enquiring intellectual capacity that could nurture, and sustain, aptitude and interest. Perhaps Teymur (2007:103) best summarised the scope of qualities to strive for:

[…] the most critical for architectural education is curiosity, the willingness to embrace ambiguity, paradox and uncertainty, to develop the balance and the connection between science and art, logic and imagination, the 'whole-brain' thinking, and a recognition of the interconnectedness of all things and phenomena…

It was apparent that limited resources were available for selection and therefore any future strategy had to dovetail with the academic activities of the School and utilise the human capital of the members of staff. In order to avoid unnecessary duplication it was therefore essential that any new procedure should apply to all three undergraduate programmes offered by the Department while allowing for idiosyncratic differentiation between them. In preparation for the intake of 2007 a matrix of cumulative considerations was developed that proposed a procedure informed by the architectural disciplines and the specific nature of their presentation at UP, one that reflected the intrinsically complex nature of spatial design but also embraced the Department's ethos of interdisciplinary and studio-based learning. As selecting beginner students into systems of architectural education acts as the threshold to the discipline and profession, the new procedure was expected to stand in the same relationship to the studio as the studio, in turn, stood to professional practice.

6.5.8. Selection procedure (2007-2016)

A new selection procedure was introduced for the intake of 2007. The approved regulation for admission referred to the assessment tools to be used as "[…] academic conditions, a Departmental admission test (general knowledge, abilities and experience) and an interview" (UP 2007:2). In principle the seven assessment tools used for the selection of beginner students in architecture, interior architecture and landscape architecture at UP since 2007 have remained unchanged. They are deployed over the course of four rounds of elimination, as indicated in Table 6.2.

TABLE 6.2: Sequence of assessment tools used for the selection of beginner students in architecture at UP for 2016

	Academic record	Portfolios	Personal statements	Workplace experience #	Special architecture tests	Written arguments and literacy	Interviews	Generic aptitude tests
ROUND 1: Academic phase	●							○
ROUND 2: Home phase		●	●	●				
ROUND 3: Test phase					●	●		
ROUND 4: Interview phase							●	

KEY: ● indicates an assessment tool considered during selection
○ indicates an assessment tool considered during selection, but only for specific applicants and in specific circumstances – see Chapter 6.5.16

The selection procedure used for the intake of the 2016 academic year was summarised in Department of Architecture (2016a:3) – it states that all applicants who meet the minimum requirements for admission (Round 1) receive assignments to complete at home (Round 2) in preparation of a departmental selection test (Round 3). Based on an assessment of the combined outcomes of Rounds 2 and 3 a shortlist is compiled for the final phase. Applicants whose names make the shortlist are invited to attend selection interviews (Round 4). Additionally, applicants who cannot attend a test or interview on campus are considered through a procedure of alternative assessment.

In the discussion that follows the assessment tools, as indicated in Table 6.2, are ordered in the sequence of their deployment during the annual selection process.

6.5.9. Academic record (2007-2016)

During the 1960s, AERU at the Bartlett School of Architecture found that academic records, weighted for the context of applicants as opposed to being just an arithmetical set of grades, proved to be of significant value during selection – see Chapter 3.6.3. Respondents to the international surveys voiced opposing sentiments about the value of an applicant's academic record for selection into programmes in architecture – see Chapter 3.7.1. Similarly, South African schools of architecture did not agree on the aspects that an academic record brings to light, with some respondents viewing it merely as a procedural matter and the majority observing that it offered limited insight into creative and spatial abilities – see Chapter 4.6.3.

For this case study, apart from the change in the minimum requirements for admission that followed the introduction of the NSC for matriculants who completed their schooling from 2008 onwards, the principles applied for the round where academic records are considered have not changed during the period under review.

Whenever possible, the assessment of an applicant's academic record is based on final matriculation results as they determine the statutory standing of a matriculant in terms of future studies – see Chapter 4.6.3. As a rule the majority of applicants apply during their matric year and before they have completed their studies towards the NSC. For these applicants their end-of-year results for Grade 11 are considered to determine if they meet the minimum requirements for admission as discussed in section 6.5.5 of this chapter. If such an applicant is offered a place in the programme after the last round of selection, the offer is on a conditional basis and it is required that his or her final NSC results still meet the minimum requirements for admission.

Lessons learnt from the previous episode of selection at UP indicate that an academic record, in isolation, is an indicator of certain achievements, but also that it does not offer a conclusive basis for selection for admission to a programme in architecture, and that it is not without bias – see Chapter 5.9.9. The school environment, at least in South Africa at present, requires very different outcomes from those expected of

a student of architecture and an academic record, especially one expressed through a generic formula, fails to measure or recognise latent or even patent three-dimensional capacity, aptitude for or interest in design, social awareness, empathy or creative potential for problem solving. These aspects are, in varying degrees and combinations, essential for prospective architects and cannot be reliably accessed through means of general selection in accordance with the terms as defined by Herholdt (1972:11).

In addition, Spaull (2013:5) contends that:

> Analysis of every South African dataset of educational achievement shows that there are in effect two different public school systems in South Africa. The smaller, better performing system accommodates the wealthiest 20-25 per cent of pupils who achieve much higher scores than the larger system which caters to the poorest 75-80 per cent of pupils. The performance in this latter, larger category can only be described as abysmal. These two education systems can be seen when splitting pupils by wealth, socio-economic status, geographic location and language.

In light of these disparities and the uncertainty generally associated with the reliability and consistency of the national matriculation results as cited by Jansen (2011, 2012, 2017), all applicants who meet the minimum requirements for admission have, since 2007, been invited to participate in the second round of selection. In the context of Spaull's argument quoted above, an applicant from a well-resourced school does not have an obvious advantage over an applicant from a school that lacks in resources. For older or transfer applicants their academic records for tertiary and other possible studies are reviewed so as to contextualise their academic trajectories.

In effect the means that determine the merit of an application has thereby been broadened and no longer relies on one assessment tool. The academic record therefore has become a threshold to studies in architecture at UP. In the assessment cycles that follow, the academic record serves as a contextual informant that is weighted as less significant than other assessment tools that all have a more direct relationship to, and bearing on, architecture. It is therefore regarded as only having some value as an assessment tool, as indeed recorded for the majority of other schools of architecture in South Africa – see Chapter 4.6.3.

6.5.10. Portfolios (2007-2016)

The traditive role of portfolios in architectural education was briefly highlighted in Chapter 3.7.3. In Chapter 4.6.4 it was indicated that a portfolio submission was required by 80% of respondent schools of architecture in South Africa and that, as a rule, its content was prescribed.

At UP applicants who meet the minimum requirements for admission have, since the intake for 2007, been requested to prepare assignments at home where they may have access to references and resources. While, pedagogically speaking, these assignments constitute a portfolio, the term is purposefully avoided in the School's communication to applicants for its possible associations with school subjects such as Visual Art or Engineering Graphics and Design, neither of which are prerequisite

subjects for admission. In addition the terms may not be familiar to all applicants and may inadvertently be easily confused with a requirement for an artful showcase of work. The School's intention is to make the process accessible and not to create the impression that specific school subjects, or indeed the skills associated with these subjects, are required for success in selection or in the study programme (Khan & Botes 2017:4-5).

The first component of the portfolio is a biographical questionnaire that provides information about the applicant that may not be available through other means and includes, but is not limited to:

- Personal details, including the preferred first name of the applicant as the formal application format does not provide for this aspect.
- Details of the school the applicant attended.
- Information on achievements or qualifications, other than those required to matriculate.
- The languages that an applicant is proficient in; although South Africa has eleven official languages, resources are not always available to present schooling in an applicant's home language or language of choice. It could thus be revealing to find that an applicant is fluent in more languages than those he or she may be able to study at school. This may also serve to contextualise marks obtained in language subjects at school as it may negatively affect the applicant's APS.
- Any work experience; as an example, an applicant who, either through choice or circumstance, worked part-time while completing school may have more life experience, but this is not a definitive decider.
- Possible journeys or excursions undertaken by the applicant; this may serve to contextualise the applicant's frame of reference. A selector would frame questions differently to an applicant who has travelled widely when compared to one who once travelled to a destination of interest or a major city.
- Recent books that an applicant has read; this aspect may indicate curiosity or an active interest in reading, depending on the challenge presented by the reading matter and its presumed availability.
- An applicant's leisure-time activities; this may be indicative of interests and idiosyncratic abilities that may not otherwise be known to selectors.

These aspects are not assessed and only serve to contextualise an applicant's circumstances and experiences to the panel of selectors. As in architecture, the context of a design should be explored so as to better understand its nature and in order to respond more appropriately. As discussed in Chapter 5.9.3, the School sets great store by context and as such this approach transcribes designerly values to the process of selection. The biographical information thus provides a lens through which to view an application and additionally gives clues that may help a panel to initiate a conversation during a later interview.

The requirements for the remainder of the portfolio are evidenced as revelatory and with a prescribed content, including the component that requires graphic outputs that are purposefully structured around

universal references that decisively involve processes, such as the preparation of a favourite dish of food. The intention is to provide access to an applicant's ability for strategic decision making and to grasp, and communicate, a process that leads to an outcome, rather than one that is purely focussed on a design or absolute outcome or that is executed for its visual appeal. The format is kept to A4 paper and the medium, when prescribed, is limited to graphite.

A section of the portfolio requires of an applicant to undertake limited research that would allow him or her to investigate aspects related to the spatial design disciplines. A statement that introduces an applicant to specific terminology often introduces this question. It is then required that the meaning of a pertinent word or phrase be investigated to reveal its meaning and application in the architectural or construction fields. For some of these questions applicants are asked to respond with modest drawings supported by motivating statements. This purposefully directs an applicant towards the discipline of architecture and tests a variety of skills, including the way in which they interpret a question and then execute and motivate their actions. As in the previous task, this approach does not require an applicant to produce an architectural design. Rather, it invites applicants to participate and engage with aspects related to the broad spectrum of possibilities within the architectural disciplines and across a spectrum of considerations. This foretells the generative and ecosystemic values entrenched in the Department's teaching while it undermines the notion of binary outcomes.

Experience has shown that the portfolio is a very useful assessment tool when selecting beginner students in architecture, but also that it cannot be assessed in isolation – see Chapter 4.6.4. As it is only indicative of an applicant's abilities, given the time and the resources that may be available, it is argued that they should ideally be supplemented and even compared with what an applicant produces without those resources and within a limited time. To a degree this principle eliminates queries raised about the authorship of portfolios by some respondents in the South African survey on selection – see Chapter 4.6.4. At UP special architecture tests have successfully served as the platform for the comparative production since the inception of the current procedure for the intake of 2007.

The remaining two components of the portfolio, namely a personal statement or essay and an account of workplace experience, are discussed separately in the subsequent sections.

6.5.11. Personal statements (2007-2016)

The significance of a candidate's statement to the Bartlett School of Architecture in the 1960s was discussed in Chapter 3.6.3 and the role of essays in Chapter 3.7.7. The results of the survey of South African schools of architecture indicate that the majority of respondents that used this assessment tool did so in the form of a letter of motivation - see Chapter 4.6.5.

At UP an applicant is required to write a motivation to explain why he or she would like to pursue studies in architecture and submit it as part of the portfolio of home assignments. In addition it is required that

mention is made of what he or she has done to confirm that architecture is an appropriate field of study for him or her to pursue. The content of the essay therefore becomes very particular and personal. The statement is primarily read to confirm the applicant's motives and aspirations, but it could also reveal strengths in reasoning, communication and, in some instances, conceptual abilities. Although the application of language skills is not foremost in the assessment of this question, it is not entirely overlooked and is clustered with other textual outputs that form part of the portfolio and the special tests.

Personal statements are weighted with equal importance to other contextual informants that frame an application. As such it has significant value to allow an individual to present a personal narrative in his or her own words. The insight it provides is most useful when an interview is later conducted and, as was found in Chapter 4.6.5, a personal statement supports an application more than it decides its success.

6.5.12. Workplace experience (2007-2016)

Parts of the research undertaken for this section was presented as a paper at the Architectural Education Symposium at Wits on 24 January 2014 and expanded on in an article published under the title 'Knocking at the practitioner's door: Job shadowing and the threshold to the architectural professions' (Botes 2015). As stated in Chapter 4.6.8, this assessment tool was not mentioned in the international surveys but was included in the survey of South African schools of architecture following the publication of the article by the researcher mentioned above.

In Chapters 2.5.8 and 4.6.8 a general lack of awareness of the design professions in the built environment, even among prospective students of architecture, was highlighted. It has also been argued that this is more pronounced among learners from poor communities who are unlikely to have had any exposure to architecture or its practitioners – see Chapter 3.5. Moreover, Abercrombie et al (1969:17) and Nelson (1974:83) among others, have been quite explicit in stating that teachers and vocational advisors are often not well informed about the architectural profession, with the result that their learners are often not well informed either. This certainly also applies to the South African context as argued by Marschall (1998:117), Oluwa (2017:52) and Lucan in SACAP (2016a:6).

In addition most applicants are unfamiliar with the nature and format of architectural education, especially with regards to the design studio as it differs so much from the standard classroom environment. Data collected by the Department between 2011 and 2016 indicate that more than half (51%) of first year respondents indicated that they were 'very little' (32%) or 'not at all' (19%) aware of the role of the studio as a place of learning before they commenced their studies; only 22.8% of respondents 'more or less' had an idea[4] (Department of Architecture 2016c:7-8).

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4   The following question was posed: "Before you started studying here, were you aware of the role that the studio would play in your training?" Respondents were given the following options to answer: "Not at all; Very little; More or less; Adequately; Completely." (Department of Architecture 2016d:3)

Prospective students who apply for admission to the Department are required to choose one of the three undergraduate fields, or at least rank them in order of preference for consideration during selection. Thus, when redesigning the protocol for selection during 2005 and 2006, a means was sought to facilitate applicants to explore architecture, landscape architecture and interior architecture first-hand and, in so doing, it was hoped that a visit to a practice may assist them in making informed decisions about the outcomes of the programme, rather than focussing on the course itself.

As part of the portfolio submission applicants have, since the intake for 2007, been required to confirm their career choice for themselves by visiting professional practices and then reporting the certainty of their decision to pursue studies in a chosen field. The duration of visits and number of practices that an applicant should visit are not prescribed, but it is strongly advised that, where possible, applicants investigate a variety – for instance large as well as small practices – as the scope of work undertaken differs from practice to practice. Applicants are encouraged to share their primary impressions of the workplace and make drawings of at least one of a practice's projects as a way of formulating an opinion of the work and so to explain their own reading and spatial understanding thereof. Ideally this approach therefore facilitates an introduction to the nature and rituals of professional practice, an opportunity to observe and gain an understanding through personal observation and ultimately to evaluate what they see through a medium that allows for self-expression. In a sense it introduces the applicant to case studies that are essential to architectural education.

For many applicants this is their first (and often only) opportunity to investigate their career prospects in person. Data collected by the Department between 2011 and 2016 indicate that 87.23% of first-year respondents were of the opinion that the requirement for workplace experience had some (31.78%) or indeed a lot of value (68.22%) in confirming their career choice[5] (Department of Architecture 2016c:4). It is especially through the respondents' comments that one gains an understanding of these statistics. The following thematic analysis, quoted from responses[6] to an annual questionnaire, explains students' experiences and observations of the workplace experience assignment:

> We all have different ideas growing up of what life in the workplace is like. [It is] quite easy to stereotype a profession especially that of architecture. High schools also don't do a great job in helping [Grade] 11s and [matriculants] with understanding what different careers entail. I found [the practice visit] to be educational as it allowed me to find out more from actual architects, and they didn't make an effort to glamorize the career but rather show[ed] me the reality of it. (Respondent 04 2016)

> Visiting practising professionals gives a very accurate and real world understanding of the profession and actual day to day activities. You learn about the positives and negatives of the career very easily… (Respondent 40 2014)

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5   The following question was posed: "Was the practice visit of any value to you in confirming your career and study choice?" To answer respondents were given the following options: "Not at all; Little value; More or less; Some value; A lot of value." (Department of Architecture 2016d:2)

6   The following question, referring to the previous one, was posed: "Please briefly motivate your answer above." (Department of Architecture 2016d:2)

What the practice visit did more than anything was to give visual experience and understanding to research I did about the profession. (Respondent 64 2012)

The reality of the profession is often not as glamorous as one imagines. Still wanting to pursue the career after realising this is a positive sign that it is the right profession for you. (Respondent 50 2012)

I understood the profession beforehand as my mother is an architect. The visit was, however, positive as the practice I visited focussed on other types of projects and more often worked in groups. It allowed me to see different approaches to the same profession   diversity. (Respondent 36 2012)

The discipline of architecture is not a very well known one in general. I thought architecture is just about drawing plans […]. (Respondent 1 2016)

It is also clear that the practice visit served to motivate some of the applicants:

I was exposed to a lot of interesting aspects that made me more excited to embark on this journey than I originally was with my limited knowledge. It contributed a lot to my decision making towards my career choice. (Respondent 42 2014)

The practice visit confirmed my choice, because I saw exactly what architects do and [that] they still enjoyed it. It was informative and motivating. I can't see myself enjoying any other field of study as much as I do this one. I feel like we learn so much more than just one thing. (Respondent 19 2013)

During the practice visit I learned that if you're willing to work and want to learn you'll be fine. I thought that I was at a disadvantage because I did not have a lot of knowledge of […] practice before[hand], but afterwards I was much more at ease. (Respondent 50 2016)

Some applicants have also been critical of practices and themselves. These opinions reflect their perceptions and some of the challenges they identified:

The practices are not very helpful when it comes to job shadowing and they often did not reply [to requests for a visit]. I do think it is important to visit as it gives you a feel for the environment [you will work in]. (Respondent 11 2013)

I was only there for a short while, so I didn't take in much. (Respondent 31 2013)

One visit is not enough to gain an adequate understanding. (Respondent 42 2012)

As the number of local schools of architecture that require workplace experience increased – see Chapter 4.6.8 – practitioners have also responded positively, with many now hosting formal open days that allow them to host groups of prospective students together, which they find less disruptive than individual and ad hoc visits. Many practices now take time to explain their role as designers, share aspects of the projects they undertake, show the production side of an office and even take applicants on a tour of construction sites as part of their day-to-day activities. The assignment has also, as was intended, served in developing an understanding of the roles of different professionals who function in the built environment, specifically with regard to the nuances that exist between the architectural disciplines. By the same token a small number of prospective students have withdrawn their applications after the

practice visit, with some indicating that they felt uncomfortable or thought that it would not be wise for them to pursue studies in architecture. This is equally viewed as a positive response.

On the whole it has significance as an assessment tool, but the requirement for workplace experience is decidedly seen as a task completed by applicants for their own benefit, rather than for the benefit or approval of the selectors. It is therefore considered, but not formally weighted, during selection. It also prompts a panel of selectors to pose follow-up questions during interviews, and their points for discussion are triggered where aspects of interest by the applicant, or concerns of the selectors, are flagged.

As is the case with on-campus interviews – see Chapter 3.7.4 – the requirement for workplace experience is criticised in light of it being especially difficult for applicants from rural areas to obtain access to practitioners in order to complete the assignment. Travel distances and the associated cost add to their burden. While there is no instant solution, the Department has been proactive in creating awareness of the professions and the requirements of the practice visit. The requirements for this component of selection have, for some years now, been published in full in the brochures of the Department (Department of Architecture 2016a:5); the intention is that an applicant may be able to better plan if they know about the requirements long in advance.

In addition other opportunities have been created to foster a broad, introductory awareness of the design professions in the built environment. Apart from the standard institutional instruments, such as the annual Open Day at UP, these have, since 2012, included workshops aimed at learners from disadvantaged and marginalised communities. The format is based on the pre-existing 'Be an architect for a day' workshops – see Harber (2013:183) and Marschall (1998:117). Ms Buhle Mathole has managed these on the behalf of the School with keen assistance from lecturers, practitioners and students whose participation is sanctioned for the Joint Community-based Project – see Chapter 6.5.4.

A second opportunity, the annual Profession Session, was introduced in 2014 in an attempt to clarify the role of the design professions in the built environment to applicants who are in the process of completing the requirements for selective admission. During these sessions practitioners in architecture, interior architecture and landscape architecture present their work to a captive audience of applicants (and their families). In order to maximise on the logistical aspects for applicants who travel far distances to attend, the session is presented on the same day that the majority of applicants sit for the third round's selection test.

The intention with the Profession Session has been fourfold: where possible not to replace, but rather augment and clarify the requirement for workplace experience; to accommodate those prospective students who do not have easy access to practices in all three fields of study; to ensure that reliable information on all three fields reach as many applicants as possible; and to share this information with

contenders' parents and siblings, who are often not adequately informed to support the applicants constructively. Based on comments[7] from students, this proved to be an effective strategy:

> It was great for my parents [to] also get some insight on what I'll be doing one day. It set me at ease. (Respondent 9 2015)

> It was of great value to both my parents and I, it helped explain each course (architecture, landscape and interior) and what is expected from each. (Respondent 33 2015)

> The session provided much information on different disciplines and helped me to be sure that I was making the right decision in studying architecture. (Respondent 38 2016)

From the attendance numbers and general feedback,[8] it seems that the applicants' frame of reference and sense of awareness were significantly broadened. The initiative can therefore not be separated from the selection agenda and has become an integral part of selection procedures.

While the requirement for exposure to the places where architects work has disadvantages from a logistical point of view, its value to applicants far outweigh any other consideration.

6.5.13. Special architecture tests (2007-2016)

The way that special architecture tests were conducted in the Beaux-Arts system was discussed in Chapter 3.6.1 and the views of respondents to the international survey were analysed in Chapter 3.7.5. It was found that such tests were also conducted on a national basis in countries like India and Sweden. As assessment tools these tests are intrinsically discipline specific and therefore carry a lot of weight in the selection process of the local institutions that use them – see Chapter 4.6.7.

At UP special architecture tests featured in the first episode of selection between 1971 and 1994 – see Chapters 5.7.10 and 5.8.8. Since the intake for the 2007 academic year, applicants who meet the minimum requirements for admission have been invited to take a special architecture selection test on completion of the assignments for the second round of selection. The test has, since its (re)introduction, been wholly generated and administered by the convenor for selection on behalf of the Department. Where the home assignment phase called for assignments that were completed by applicants at home and with the availability of resources, the selection tests are taken in a controlled environment on the UP campus and with time restrictions imposed – see Figure 6.1.

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7   The question was posed to students who indicated that they attended the Profession Session just before the selection test: "[…] was this session of any value to you?" and "[…] please motivate your answer in [the foregoing question]" (Department of Architecture 2016d:5).

8   Of those who indicated that they attended the Profession Sessions in 2015 and 2016, more than 90% of respondents to the annual first-year questionnaires indicated that they thought the event was of some (47.8%) or a lot of value (52.24%) to them (Department of Architecture 2016c:15).

FIGURE 6.1 Applicants taking the architecture selection test on 15 August 2015 in the Centenary Building on the Hatfield campus of UP. The remaining time for the paper is displayed on the screen

For the duration of the episode under review the number of tests taken per year has settled on two, or for earlier years three, per year; they have normally been taken a week apart, with one on a Saturday and the other during the afternoon of another weekday so as to allow as many applicants as possible to attend. Questions are responsibly refreshed between tests and nuances are tweaked to prevent leaked questions from undermining or influencing the process.

During these tests four papers should be answered over two sessions that, in total, span over three hours. The duration of the papers vary from twenty to ninety minutes. Although the tests are taken under strict test and examination conditions, an attempt is made to provide a comfortable setting with appropriate breaks. Carefully chosen music is played during some papers that have drawing-based outcomes and audio-visual presentations are used to introduce others. A combination of traditional written answers and drawing-based performance assessment assignments are employed with an emphasis on the latter. The former consists of questions on general knowledge and current affairs – usually limited to twenty short questions and the only ones where an answer can be marked as correct or incorrect. In combination with questions that probe an applicant's imagination and social awareness, open-ended statements are posed to elicit responses and opinions on a wide range of subjects, follow-ups on the practice visit or other aspects of their portfolio submissions. This examines abilities in reasoning and linguistic skills and, to some degree, gives insight into the ability to respond intuitively, to formulate opinions and of creative potential.

In addition, cognitive and visual memories, abilities in observation and visual communication, three-dimensional capacity and spatial imagination are progressively assessed in drawing questions where

applicants respond to specific challenges in much the same way as a design project would do in the studio. The important distinction between selection tests and studio projects is that no design outcomes are required during selection; instead questions are structured to relate to some of the many facets that may inform generative design processes. The intention is firstly to assess a candidate's demonstrable aptitude and possible appetite for design from multiple viewpoints and over a broad spectrum of possible determinants; secondly the extent and variety of subjects addressed hopefully convey something of the complexity of spatial design beyond the clichéd perception of 'drawing plans'.

An applicant's test outcomes are assessed in the context of his or her portfolio, which is submitted before the special architecture test sessions commence. These two components are assessed individually, collectively and through comparison. In this way a better understanding of the latent and patent abilities, strong suits and limitations of an applicant can emerge. The special architecture test plays a significant role in the selection procedure of the Department, but it cannot be appreciated in isolation and is therefore equally important to the whole of the portfolio.

Written arguments and an assessment of an applicant's skills in literacy are included in the special architecture test, but it was identified as a separate consideration and assessment tool by Goldschmidt et al (2001:287) and is therefore discussed in the following section of this chapter.

6.5.14. Written arguments and literacy (2007-2016)

The importance of language skills were highlighted by Goldschmidt et al (2001:287) and respondents to their international survey indicated that they hold such skills in high regard – see Chapter 3.7.7. At UP the Department holds a traditive view that values linguistic skills and thus set a minimum requirement for admission with respect to performance in a language subject at school. Similar to the practice followed by other South African schools of architecture – see Chapter 4.6.9 – written arguments and aspects of literacy are embedded in the special architecture tests, but also continuously assessed throughout the selection procedure, including the personal statement component of the portfolio and during interviews.

When assessing written arguments and an applicant's literacy skills, selectors are more interested in finding evidence of an ability to translate intentions, opinions and constructs, whether abstract or concrete, into the format of language as this act has some correlation with the process of generative design. Therefore the ability to construct language in a meaningful and sincere way is weighted more than the absolute application of the rules of grammar. Comprehension and interpretation of, and through, language are viewed with equal importance to the production aspect of communication. In turn the skills in language and literacy underscore and contribute to the whole assessment of an applicant's abilities and should be supportive of critical skills applicable to the programme in architecture, such as a three-dimensional capacity and spatial imagination.

The School's selection procedure adheres to the language policy of UP that, in 2016, read:

On first-year level a student has a choice between Afrikaans and English as language medium. In certain cases, tuition may be presented in English only, for example in electives, where the lecturer may not speak Afrikaans or in cases where it is not economically or practically viable. (UP 2016b:1)

Accordingly, for the period under review, all selection documents have been available in both of these languages[9] and most often in documents that use a side-by-side layout – see Figure 6.2.

UNDERGRADUATE SELECTION • DEPARTMENT OF ARCHITECTURE • UNIVERSITY OF PRETORIA **2016** PART **B** PAGE **1**
VOORGRAADSE KEURING • DEPARTEMENT ARGITEKTUUR • UNIVERSITEIT VAN PRETORIA DEEL BLADSY

PLEASE PRINT CLEARLY	*VOLTOOI ASSEBLIEF IN DUIDELIKE DRUKSKRIF*

Surname
Van

Preferred first name
Noemnaam

Initials
Voorletters

For which programme do you want to be considered? Mark your first choice with a number **1**. If you are considering any of the other programmes as a second and/or third choice, mark those blocks clearly with respectively a number **2** and **3**.

Vir watter studieprogram wil u oorweeg word vir keuring? Merk u eerste keuse met 'n nommer 1. Indien u van die ander programme as 'n tweede en/of derde keuse oorweeg, merk hul duidelik met onderskeidelik 'n nommer 2 en 3.

Bachelor of Science Architecture
Baccalaureus Scientiae Argitektuur **BScArch** ☐

Bachelor of Science Interior Architecture
Baccalaureus Scientiae Binne-Argitektuur **BScInt** ☐

Bachelor of Science Landscape Architecture
Baccalaureus Scientiae Landskapargitektuur **BScLArch** ☐

DO NOT TURN OVER THE PAGE. PLEASE READ THE INSTRUCTIONS BELOW WHILE YOU WAIT.

MOENIE OMBLAAI NIE. LEES ASSEBLIEF DIE AANWYSINGS HIERONDER TERWYL U WAG.

INSTRUCTIONS:

Duration of this test: **90 minutes**

No applicant will be allowed to leave the auditorium before the full time has elapsed.

1. Together with your home assignments and the other tests taken today, applicants are evaluated on their general knowledge and interests, a wide spectrum of skills, their motivation and experience.

2. Please note that members of staff may not answer questions about the questions in this paper.

3. Answer all questions. Plan your time carefully as this paper takes longer to answer than you may anticipate.

4. Please write legibly; to complete written questions:

USE THE FULL LINE FOR YOUR ANSWER. THERE IS NO NEED TO WRITE ONLY ON THE LEFT HAND SIDE IF YOU ANSWER IN ENGLISH

5. Written questions should preferably be answered in ink and drawing questions with a pencil.

6. Erasers and correction fluid may not be used.

7. The use of a cellular phone in the auditorium is not allowed, not even for keeping time.

8. The selection tests are taken under examination conditions. Should you in any way undermine the integrity of your answers, or those of other applicants, your application will be cancelled without further consideration.

AANWYSINGS:

*Tydsduur van hierdie toets: **90 minute***

Geen aansoeker mag die ouditorium verlaat voor die tyd verstreke is nie.

1. *Saam met u tuisopdragte en ander toetse wat vandag afgeneem word, word aansoekers se algemene kennis en belangstellings, 'n breë spektrum vermoëns, hul motivering en ervaring evalueer.*

2. *Let asseblief daarop dat lede van die personeel nie vrae oor die vrae in hierdie vraestel mag beantwoord nie.*

3. *Beantwoord alle vrae. Beplan u tyd sorgvuldig aangesien dit langer sal neem om die vraestel te beantwoord as wat u mag dink.*

4. *Skryf asseblief leesbaar; vir invulvrae:*

GEBRUIK DIE VOLLE LYN OM IN TE ANTWOORD. U HOEF NIE NET AAN DIE REGTERKANT TE ANTWOORD AS U IN AFRIKAANS SKRYF NIE

5. *Skriftelike vrae moet verkieslik in ink beantwoord word en tekenvrae met potlood.*

6. *Uitveërs en korrigeervloeistof word glad nie toegelaat nie.*

7. *Geen selfone mag in die ouditorium gebruik word nie, selfs nie om tyd te hou nie.*

8. *Die keurtoetse word onder eksamenomstandighede afgeneem. Indien u enigsins die integriteit van u of ander kandidate se antwoorde ondermyn, sal u aansoek summier gekanselleer word.*

STATEMENT:
• I fully understand the instructions above and their implications.

• The information in this selection document is correct and the work submitted is my own.

• I acknowledge that the decision of the Selection Committee is final and that no discussion or correspondence will be entered into.

VERKLARING:
• *Ek begryp die aanwysings hierbo, en die implikasies daarvan, ten volle.*

• *Die inligting in hierdie keurdokument vervat is korrek en die werk aangebied is my eie.*

• *Ek aanvaar dat die beslissing van die Keurkomitee finaal sal wees en dat geen bespreking of korrespondensie daaroor gevoer sal word nie.*

SIGNATURE OF PROSPECTIVE STUDENT
HANDTEKENING VAN VOORNEMENDE STUDENT

FIGURE 6.2   A typical cover sheet to a departmental selection test for the intake of 2016 that indicates the side-by-side layout in two languages (Department of Architecture 2015a:1 of Part B)

9   The language policy of UP has been under review since 2015 and at the time of writing in 2017 all indications are that a single language policy, with English as the only language of instruction, will be implemented as of the 2019 academic year.

This policy clearly puts applicants for whom neither of the two languages of instruction is their home language at a disadvantage. In a multilingual country with a history of strong opinions and protests about the privilege and partiality of language policies, selectors are very sensitive to the subject of language and therefore make allowances whenever it is required and justified. A concerted effort has also been made to foster an appreciation for language per se, multilingualism and its impact on architectural vocabulary. An example from the portfolio questions for the 2016 intake illustrates such an attempt:

> Subject terminology is used to define ideas and concepts in a specific context; it can therefore reveal a lot about a discipline and the world with which it engages. Please research the origin and meaning[10] of the following ten terms: archetype;[11] *brise soleil*;[12] cantilever;[13] Flemish bond;[14] ha-ha wall;[15] *impluvium*;[16] *isivivane*;[17] *lekgotla*;[18] *stoep*;[19] wetland.[20] Do not submit anything, but questions relating to these terms may follow later.[21] (Department of Architecture 2015a:3 of Part A)

This type of guided research is obviously also relevant to, and predictive of, the course content presented to students during the first year of study, not only in Design, but also in Construction, Earth Studies and History of the Environment. They purposefully refer, for the most part, to tangible aspects so as to avoid confusion and to enable various formats of follow-up questions. The selection of terminology has also been influenced by an aspiration to inform, and hopefully enthuse, applicants.

10   For the sake of clarity and accessibility these terms are briefly explained in the footnotes that follow. It should be noted that the type of question subsequently posed to applicants during a test or an interview depends on the nature and context of the application of a specific term. A quick diagram, drawn with the free hand, is more appropriate to illustrate some terms and can therefore also test the comprehension, cognitive memory or pattern recognition skills of an applicant, while others lend themselves well to a brief written or spoken answer. The etymology aspect is mostly included for curious minds.

11   **Archetype** originates from the Greek *arkhetupos* (meaning first moulded) and was adapted to the Latin *archetypum* (meaning an original) and refers to "A perfect or typical specimen" where the combining form 'arch-' or 'archi-' refers to a principal or the highest rank. (Collins English Dictionary 2007:82)

12   *Brise soleil* is a French phrase that refers to a sun-break or means to control the amount of direct sunlight that is allowed to enter a building and is "[…] now frequently an arrangement of horizontal or vertical fins, used in hot climates to shade the window openings" according to Fleming, Honour and Pevsner (1980:163). It was made popular in Pretoria during the mid-twentieth century as one of the borrowed elements of Brazilian modernism and can be seen on the north façade of the Boukunde Building that houses the Department of Architecture on the Hatfield Campus of UP.

13   **Cantilever** refers to a horizontal projection of "a beam, girder, or structural framework that is fixed at one end and is free at the other" (Collins English Dictionary 2007:250). "It is without external bracing and thus appears to be self-supporting." (Fleming, Honour & Pevsner 1980:66)

14   **Flemish bond** refers to "a bond used in brickwork that has alternating stretchers and headers in each course, each header being placed centrally over a stretcher" according to Collins English Dictionary (2007:621). This term is better tested with a drawing question.

15   **Ha-ha wall** refers to the construction component that acts as a '[…] boundary marker that is set in a ditch so as not to interrupt the landscape" (Collins English Dictionary 2007:734). The origin is eighteenth century French and is probably based on an exclamation of surprise. This term is better tested with a drawing question.

16   *Impluvium* is a Latin word that refers to "The basin or water cistern, usually rectangular, in the centre of an atrium of a Roman house to receive the rain-water from the surrounding roofs." (Fleming, Honour & Pevsner 1980:163)

17   *Isivivane* is a Nguni word from the east of Southern Africa that means a heap or cairn of stones. A prominent *isivivane* was constructed at Freedom Park in Pretoria in the early 2000s. Landscape architect Graham Young, one of the designers of the project, writes: "The *Isivivane* is a sanctuary – a 'final resting place for all the people who fell in the fight for freedom in the eight conflict events, which eventually shaped South Africa'." (Young 2007:49)

18   *Lekgotla* is Sotho and Tswana word from South Africa that refers to "a meeting place for village assemblies, court cases, and meetings of village leaders" (Collins English Dictionary 2007:930). In South African English it refers to a meeting or conference and in architectural terms therefore denotes the place where these are held.

19   *Stoep* refers to "a raised and roofed area outside the door of or around a house" (English Dictionary for South African Schools 2015). It is an Afrikaans word, probably from Dutch origin, that is ubiquitously used to refer to a veranda in South Africa (Collins English Dictionary 2007:1587).

20   **Wetland** refers to "an area of swampy or marshy land" (Collins English Dictionary 2007:1825) that is part of a distinct ecosystem. A wetland can act as a filtration system and can occur naturally or be constructed.

21   Despite their specificity and seemingly complex explanations, these terms are all easily found through an online search. 'Ha-ha wall' was therefore used instead of 'ha-ha' as searches for the latter only show results for associations with sounds of laughter.

6.5.15. Interviews (2007-2016)

Interviews drew mixed responses from respondents in the international survey – see Chapter 3.7.4 – while the AERU at the Bartlett School of Architecture considered interviews useful as a means to acquaint applicants with the school. In this sense their advantages outweighed the fact that they were time consuming – see Chapter 3.6.3. In the survey of South African schools of architecture only four respondents indicated that they use interviews, but all were unanimous that the assessment tool contributed significantly to the selection procedure and outcomes – see Chapter 4.6.7. During the first episode of selection at UP between 1971 and 1994, formal interviews were used as the final stage of selection with the aim to consider the applicant's motivation and confirm an active interest – see Chapter 5.7.11 and 5.8.9. During the second episode, interviews were used as an informal supplementary form of selection to fill any available places just before the academic year commenced – see Chapter 5.9.8.

During selection for the 2007 cohort of beginner students, all applicants who sat for the special selection test were interviewed in the afternoon following their tests. This became unnecessarily cumbersome and prolonged the interview process over months, which undermined the consistency of their assessment. A logistical decision was thus made for the intake of 2008 to launch a process of elimination that would limit interviews to those candidates who realistically stood a good chance to be admitted. Accordingly a pre-interview assessment cycle was introduced in order to compile a shortlist of applicants who would be interviewed. While this was initially intended only to identify applicants with apparent spatial skills, it has evolved into a comprehensive appraisal summarised in a rubric format. The number of applications received by UP required that, during the period under review, only the strongest all-rounder applicants be invited to an interview. When an applicant applies for admission the programme in architecture at UP they have a chance of less than 10% to be successful; this improves to 50% if they are shortlisted for an interview as the number of applicants who is granted one is around double the number of the maximum intake for the next academic year.

The interviews are annually taken on campus during the weeklong recess at the end of September or the beginning of October. Although the objections against interviews raised by respondents in the survey by Goldschmidt et al (2001:288) – specifically those related to travel distances, cost to applicants and the demand on staff time – hold true, the Department considers a personal interview to be a vital summative assessment tool as it provides the opportunity to engage personally with applicants in a discursive format that captures the nuances of a future discussion in the studio. It has been pointed out that, although interviews are time consuming, many researchers viewed it as a constructive assessment tool that served to reveal aspects that other assessment tools may fail to test and that it serves purposes other than predicting academic potential – see Chapter 3.7.4. Moreover, the advantage of having applicants on campus and in the Department – as mentioned by Abercrombie et al (1972:86) in Chapter 3.6.3 and Olweny (2008:4) in Chapter 3.7.4 – cannot be disputed, especially when one considers the general lack of information about architectural education, even among those who apply for admission to study in this field. As a last resort the Department has made alternative means of assessment available to those

applicants who are unable to attend on campus interviews – refer to the section in Chapter 6.5.17 that follows.

A panel of at least three, but often more, lecturers – especially, but not exclusively, those involved in the first year studio who will take responsibility for the student's academic progress during the subsequent year – conduct an interview with the applicant as the final stage of selection. Naturally it is expected that applicants are nervous and therefore, after introductions, an effort is made to start the interview with a question that relates to an aspect that is familiar to the applicant and of personal or particular interest. It follows the format of a formal conversation, rather than a question and answer session, and is guided by the applicant's total submission up to that point, including his or her portfolio with the personal statement, evidence of workplace experience, all the work submitted for the special test sessions and a summary of the previous assessment in rubric format. In the absence of a predeterminate student profile, consideration is given to an individual's character, background, interests and strengths as explained in the discussion of the biographical questionnaire component of the portfolio earlier in this chapter – see 6.5.10. The opinions of applicants are surveyed, discussion is encouraged when aspects prove to be of interest or for the sake of clarity and applicants are given the opportunity to reflect on their previous submissions.

Sound recordings of the interviews are kept for record purposes and in order to shed light on aspects that may later be questioned or prove blurred.

As the summative means of assessment the interview has significant value for the Department as it is structured to review the outputs from all the previous rounds and provides selectors with an opportunity to put a face to the paper trail and to get to know and, hopefully, understand a little about each applicant as an individual. It is also true that the interview format allows members of staff to gain insight into the new cohort and they are therefore able to calibrate their expectations for the intake and plan accordingly for the next academic year. It has also served to motivate educators – selectors have often commented how much they look forward to working with the new students when the interviews have been concluded.

6.5.16. Generic aptitude tests (2007-2016)

While generic aptitude tests were the second most popular assessment tool in the international surveys – see Chapter 3.7.2 – it was only used by only three out of the ten respondents in the South African survey. Two of these respondents used the results of the NBT to augment other indicators of academic capacity.

Although many entities at UP require of applicants to take the NBT, the Department does not, but advises applicants to do so as the NBT results may be required by other departments or institutions that applicants may also wish to apply to. The Department follows the directive of the office of student administration in the Faculty of Engineering, Built Environment and Information Technology which states that, in certain cases, such as when an applicant's final Grade 12 marks are disputed, the NBT results

may be considered as an additional indication of academic abilities (Department of Architecture 2016a:4). There have only been two instances when this option was used; in each case the applicant was awarded a final mark of 49% for a requisite school subject, but obtained results considered to be proficient in the appropriate section of the NBT. This arrangement is decidedly an exception to the rule and is seldom used.

6.5.17. Alternative means of assessment (2007-2016)

As a rule more than half of the applications the Department annually receives are from the Gauteng province where UP is situated, but all the other provinces are always represented, as are most countries in the Southern African Development Community. In the spirit of inclusivity that guides selection at the School, those candidates who are unable to attend a selection test on campus may apply for a process of correspondence that has become known as postal selection. A limited number of applicants are accommodated through this process and they usually amount to less than five per cent of those who participate in the second round of selection. For postal selection preference is given to those applicants who live very far from campus or who are abroad during the selection tests. It requires all of the home assignments in addition to specific questions that were formulated to be completed in own time and with resources. A separate assessment rubric is used for these applications.

In addition an interview by telephone or videoconference may be granted to applicants whose names have made the shortlist. This mode of interview is often approved for the applicants who submitted round two through postal selection, but many of them travel to Pretoria if they make the interview shortlist. Similarly, some applicants who sat for on-campus selection tests may request the alternative means if their circumstances do not allow them to attend an interview in person.

Although not ideal as it limits the construct and context of performance assessment demands, the limited number of postal applications processed annually, and the quality of students it has presented in the past, justify the additional administration.

6.5.18. Assessment (2007-2016)

Since the pre-interview assessment was introduced for the intake of 2008, a total of three assessment cycles have been employed over the course of the selection of beginner students at the Department. In the cumulative selection process each cycle acts as a round of elimination.

The first cycle is an administrative process that only verifies that the academic record of an applicant meets the minimum requirements for admission to the programme, or could meet such at the time of registration early in the new academic year should the applicant still be in the process of studying towards the NSC – see Chapters 6.5.5 and 6.5.9. All applications are assessed in the first cycle, but only around half, or just less, usually qualify for further consideration – see Table 6.3.

TABLE 6.3: The sequence of assessment cycles and over the course of the assessment tools for the 2016 intake

	Percentage of all applications assessed in specific cycles for the intake of 2016	Academic record	Portfolios	Personal statements	Workplace experience #	Special architecture tests	Written arguments and literacy	Interviews
ROUNDS 1 – 4	-	●	●	●	●	●	●	●
ASSESSMENT CYCLE ONE	100%	ONE						
ASSESSMENT CYCLE TWO	≈ 45%	TWO						
SUMMATIVE ASSESSMENT CYCLE	≈ 15%	THREE						

The total submissions of the remaining applicants are assessed in a second assessment cycle after applicants sat for the special architecture tests. This assessment considers the portfolio prepared at home with the personal statement and evidence of workplace experience, as well as the papers for the special test that includes written arguments and a series of drawings undertaken in a controlled environment. For the period under review a day outside of the School's lecture timetable has annually been set aside for members of staff to join forces for this task.

To participate as an assessor it is required that a person should have experience as a lecturer in Design in the School's studios for the undergraduate programmes. This ensures that the expectation of assessors is credible and based on experience. The format – around a communal table – allows for the sharing of opinions, answers to questions being read aloud or shown around if an assessor is in doubt about its merits, as well as cross referencing between assessors – see Figure 6.3. The rubric for this cycle of assessment provides for a second opinion for borderline cases or for ambiguous answers. Assessors often refer applications, or parts thereof, to other members around the table for verification.

Assessors aim to access pertinent information about the applicant informed by, among others, the biographical questionnaire that introduces the portfolio. In total twenty-five aspects are rated on a five-point scale that is expressed qualitatively; an example of this gradation would be that an answer may range from 'clumsy and vague' at the lower end to 'convincing' or 'wholly convincing and innovative' at the top end.

FIGURE 6.3 Members of staff assessing applications in cycle two in September 2016

As the process favours applicants who are all-rounders above those with only one or two strong suits, applicants with a good overall ability and the highest ratings, especially for components with a higher difficulty level, are shortlisted for the round of interviews. The number of interviews that can be accommodated in a week determines the total number of applicants on the shortlist; this has never exceeded double the maximum intake for the next academic year.

The interview round is used as the final cycle of summative assessment and therefore all components of an applicant's submission are considered separately and as a whole. For the sake of continuity experienced members of the interview panel are tasked to pose follow-up questions on aspects such as the personal statement, while additional aspects are the first responsibility of other interviewers. Parts of the portfolio are swapped between interviewers and notes or comments made by assessors in the second cycle often lead the panel to follow up on items that may require clarity or are opportune to discuss. An applicant is engaged in an exchange of ideas and not interrogated.

At the conclusion of each interview all members of the panel score the application on a ten-point scale[22] that is recorded. Averages are later tallied to determine a ranking that decides which applicants will be offered the available places in the programme, with a waiting list for a limited number of applicants who were rated highly but could not be accommodated.

22 The ten-point scale replaced a five-point scale from the intake for 2014 onwards in an effort to better differentiate between the final assessments of applications. It is also thought to be more assessable to assessors as it easier translates to a percentage mark, which is the standard format in which a student's work is assessed at schools of architecture in South Africa.

It should be clearly stated that, while assessors have differing opinions about certain aspects of an application, vast discrepancies seldom manifest in the scores that interviewers allocate during the summative assessment cycle. This is viewed as a positive indicator of a procedure that has developed a degree of maturity and consistency. In this sense the summative assessment of an application correlates with the prevailing approach that guides a formal portfolio review in Design or an oral examination in another subject at the School. If these values were incompatible it would have resulted in a degree of separation between the process of selection and the programmes for which students are selected, that would, in turn, undermine the specificity of the procedure and the validity of its outcomes.

6.5.19. Ongoing reviews and opportunities for feedback

The Department follows a multipronged approach for the engagement with the student body on an ongoing basis. This is done formally through surveys and students' assessment of courses and their presenters, group and panel discussions – see Figure 6.4 – or through informal conversations.

FIGURE 6.4   Prof. Chrisna du Plessis (third from the left) with participants in a panel discussion on the cost structure of in-house services during the plenary session of the Department's annual vertical studio on 22 July 2016; students from the first year of study up to the professional master's studio joined in this session

Through these means it has been possible to engage students on matters of importance and routine, including their perceptions and expectations of the procedures for selection and subsequent studio experience. While it has offered the opportunity for ongoing review and refinement of selection practices, these modes of feedback obviously has the limitation that it only engages with those who were successful in being admitted to the Department. It has nonetheless provided valuable opinions and recommendations.

This includes suggestions for questions, formats and logistical arrangements, some of which have been successfully implemented during the period under review. One such proposal from a student has seen the introduction of social media as a means of supporting applicants through the selection procedure. During the selection season in 2014 a group was created on Facebook in preparation for the intake of 2015. All applicants were invited to join the group, of which the description read:

> Boukunde (literally translated: 'Building Sciences') is the name of the building that houses the Department of Architecture on the University of Pretoria Main Campus in Hatfield, Pretoria, South Africa. The Boukunde BSc 2015 group is specifically aimed at providing information and support during the test and interview phases of selection for the undergraduate programmes in Architecture, Interior Architecture and Landscape Architecture for the 2015 academic year. (Boukunde BSc 2015 2014)

The medium has since been used as an additional resource for the intake of every subsequent year. From the Department's point of view it has been useful as a means to disseminate information to applicants beyond the official guide that is issued annually. The opinions of students have also been instrumental as to how this forum has evolved and their feedback[23] has been most encouraging.

> I could find information and be notified extremely quickly and easily through Facebook even though I do not use Facebook often. Great medium to access information in my own time. (Respondent 1 2015)

> Other people's questions were often similar to my own queries and therefore I could gain valuable information. (Respondent 12 2015)

> The FB [Facebook] page is an amazing interactive platform where I was able to get immediate help or answers to questions during the application process. Especially when you are very stressed about the process, getting quick feedback and updates was reassuring. (Respondent 29 2016)

Students have also regularly been prompted to reflect on their experience and express their general views of the selection process. Data collected by the Department from first year students between 2011 and 2016 indicate that the vast majority (95.8%) of students were of the opinion that the selection procedure was adequately reasonable and fair,[24] with 70.4% answering 'definitely' and 25.4% answering that it was 'adequate' (Department of Architecture 2016c:2-2). The following examples represent the opinions of students on the selection process and illustrate a range of perceptions on items of interest to this thesis:

> The selection process does not necessarily deal with your ability to draw, but more your ability to perceive a world that is not yet realised. (Respondent 47 2014)

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23 Students were asked if they joined, followed or in any way participated in the Facebook group for selection during the previous year. The follow up question prompted those who answered positively for a brief motivation if they thought it was of any value to them (Department of Architecture 2016d:5).

24 The question posed to students read: "On the whole, do you think that the selection process that the Department uses is reasonable and fair?" Respondents were given the following options to answer: "Not at all; Inadequate; More or less; Adequate; Definitely" (Department of Architecture 2016d:1). In a follow up question students were asked to briefly motivate their opinions.

I feel that, when considering the range of students that were selected, a wide variety of people was admitted on individual merits. Also, it appears as if the people that were selected have the necessary skills, while bringing various other qualities to the table. (Respondent 40 2015)

The selection process gave good insight of what was to be expected from the course. It helped us to begin thinking creatively and without the limits given at school. (Respondent 56 2016)

The selection is based on a very broad variety of aspects. It is a good system because it makes it really difficult for applicants to be dishonest in terms of their drawing portfolios. It allows for the department to get to know each individual and understand their strengths and weaknesses as a whole and so nobody is disadvantaged by selection being based solely on drawing ability or school results. (Respondent 36 2015)

There is not one specific model student that is being [sought] out but rather the ones that seem the most determined & passionate and this brings together a very diverse group of people. (Respondent 64 2014)

I really enjoyed the variety of challenges put forth. I also like to see how much I know on a more general scale, and even if I had not been successful in being accepted, I [would have] walked away with an amazing experience that taught me a lot about myself and the university. (Respondent 44, 2016)

It was challenging because you need to use your initiative on things that you are uncertain about. It was an adventure because each question was different. (Respondent 17 2014)

These reviews have been augmented by observations and feedback by members of staff, both from the academic and administrative sides of the Institution, and have been considered on an ongoing basis. It has resulted in several discreet innovations and inventions that have proven their worth over time.

6.5.20. Formal review

Early in 2015 some concerns were raised about the equity of the Department's recent selection practices and the particular approach it introduced. Of particular concern to the Institution was how dependable and defendable the procedure was as no comparable precedent existed at UP. It was therefore recommended and agreed that the selection system would be subjected to a formal review.

Accordingly an invited panel reviewed the School's selection procedures for the admission of beginner students over the course of April and May 2015. The review format was structured on the model of a validation or accreditation visit, as is customary for schools of architecture. In this instance the review panel was made up of a professional architect with no affiliation to UP, a professor of law and jurisprudence, a professor of education with extensive experience in evaluation and assessment, and a senior student administrator and manager – see Appendix 4 for details.

The terms of reference for the review required of the panel to determine whether the selection procedures for beginner students in the programmes offered by the School were:

EQUITABLE – That each applicant is equally considered and has an even-handed chance for gaining entry into their programme of choice based on the criteria for scrutiny and selection;

TRANSPARENT – That the system of consideration, exclusion and selection can be explained and elucidated on enquiry;

DEPENDABLE – That should the same process be followed again it will deliver the same results;

DEFENDABLE – That the deliberations and decisions reached in the process of exclusion and selection are able to be defended if subject to litigation. (Department of Architecture 2015b:1)

The documents presented for perusal by the panel included a report from the researcher that outlined the selection procedure, the rationale for each step and the procedures and protocols followed during the process. It was supported by the following documentation[25] (Department of Architecture 2015b:2):

- The selection files of prospective students who applied for the 2015 academic year, namely:
    - applicants who were selected for the 2015 cohort (all three programmes);
    - applicants who were not selected but who were shortlisted for interviews (all three programmes);
    - applicants who were not shortlisted for interviews and thus not selected (all three programmes);
    - postal selection applicants (all three programmes);
- The annual first year questionnaires on selection from 2012, 2013 and 2014;
- A statistical analysis of the responses to the first year questionnaires for 2012, 2013 and 2014;
- A printed record of the Facebook support page for applicants from 2014 (in support of selection procedures for the 2015 intake);
- Digital sound recordings of all the selection interviews for the 2015 cohort;
- Two typical complaints and the convenor's written response.

The findings of the panel were summarised in the general recommendations at the conclusion of the process and stated the following:

The panel's findings unanimously support the selection procedures used by the Department of Architecture for admission to the undergraduate programmes. The panel found them to be equitable, transparent, dependable and defendable, as set out in the terms of reference.

In her report Prof [Sarah] Howie concluded that the 'philosophy, design and processes adopted by the Department of Architecture for its selection process is valid and reliable in addition to being fair. The process is comprehensive, transparent and supportive to applicants. It combines a variety of appropriate assessment strategies which are relevant to the field and appropriately challenging to the applicants.'

Members of the panel additionally commented that they were satisfied as to the 'adequacy [and] appropriateness' ([Mr Marcus] Holmes), that the procedures are 'in line with our constitutional values' ([Prof Duard] Kleyn) and that it is a process with 'quite some innovation and appropriate thinking for the 21st century' (Howie). (Department of Architecture 2015b:2-3)

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25 In this quotation the numbering of the list of supporting documents was replaced by symbols for ease of reading and to avoid confusion. The content has not been altered otherwise. The original document is appended in Appendix 4.

The Institution consequently accepted the panel's findings and the Department has since continued with its selection practices as explained earlier in this chapter. The formal review established formal mechanisms of external scrutiny for the verification of selection procedures and is considered to be one of the pivotal achievements of the research and its realisation.

6.5.21. Outcomes (2007-2016)

For the period under review, on average, between 8% and 9.5% of applications could be accommodated in the combined first year of study as the number of applications received for admission to the undergraduate programmes of the Department steadily increased from the previous episode. The total number of applications received has tallied to between 1 000 and 1 500 since the 2007 academic year, with the majority of these being for the programme in architecture (Department of Architecture 2011, 2017c).

When measured against some of the typical indicators, it is clear that some success has been achieved with selection during the period under review. The rate of attrition of the cohorts during their first year of study in the programme in architecture has declined from often double-digit figures during the previous episode – see Chapter 5.9.9 – to an average of 3.4% for the period between 2011 and 2015 (UP 2017a:A1-9). This equates to less than a fifth of the average rate of attrition for all cohorts in their first year of studying towards all three-year qualifications at UP[26] for the same period (UP 2017b:B1-5). In the School's undergraduate programme in architecture the cumulative rate of attrition for the first three years of study for these cohorts average out at 12.25%, while the average cumulative rate for all cohorts studying towards three-year qualifications at UP for the same period was about two-and-half times more (UP 2017a).

In terms of the rate of graduation, between 2003 and 2006 – the last years under the previous selection regime – fewer students in the architecture programme graduated after three years than all other cohorts studying towards all three-year qualifications at UP for this period. This rate improved by more than 10% for the first cohort admitted through the new selection dispensation in 2007 (UP 2011a:4-44). The cohorts who started their studies in architecture at the School between 2011 and 2014 on average outperformed the graduation rates of all others studying towards three-year qualifications for the same period at UP by 47.75% (UP 2017a).

During the period under review is has also become clear that most of the students who terminate their studies at the School do so for reasons other than their levels of competence, interest or skill. In many cases this is due to a lack of the financial means to continue with their studies.

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26 As no statistics from other schools of architecture in South Africa were available for comparison, those of the School have been compared to their official equivalents for other three year study programmes presented at UP.

Since the 2008 academic year a pass rate above 92% has been comfortably achieved in the first year Design major (UP 2011a, 2017a) and first year students enrolled in the programme in architecture have achieved a GPA, weighted by the number of credits allocated to all subjects, above 65% between 2011 and 2016 (UP 2017b). In all of these respects the outcomes have far exceeded any expectation.

The principal considerations for the redesign of selection procedures at the School were discussed earlier in this chapter – see section 6.5.7. Following from the discussion and motivations presented in this chapter it can now be argued that the first of these considerations was achieved as the selection project has been redirected from a generalist procedure to one that is compatible with the nature of architectural education and specifically aligned to the pedagogic approach followed by the School.

Similarly it is argued that the selection procedure has become more inclusive than it was before as all applicants who meet the published minimum requirements for admission have, for the period under review, been offered an opportunity to compete for admission from the first round of selection.

The medium-term goal of steadying student numbers in the programme in architecture has been achieved as there has been far less fluctuation compared to the previous episode when the rate of attrition was much higher and the size of the student body more unpredictable. With the stabilised student numbers retention has markedly increased across the board. This has accordingly eased some of management's tasks in allocating and optimising the available resources.

The long-term goal of addressing the demographic representivity of the student body has not been fully achieved, although some progress has been made. Historically disadvantaged or black students (defined as those of African, Indian and mixed race descent) comprised 14.7% of the cohort in 2007 and 22.9% in 2010 (UP 2011c:1). For the 2015[27] academic year this number rose to 46.5% (Department of Architecture 2015c:1) but the increase has not been steady and still fluctuates annually. The demographic distribution of students in the Department is therefore not yet aligned with the demographic realities of South Africa.

The gender of students has been almost equally represented in the architecture programme since 2007 and as the process of selection does not favour a particular group above another, it is therefore no longer a concern.

Despite these successes, some challenges remain unresolved. A lack of available resources, the timing of the release of the final selection results towards the end of the academic year and the total number of applications annually received make it impossible to provide unsuccessful applicants with individual feedback. This has caused some frustration for those applicants who expected a detailed report and personal advice; such feedback would be time-consuming to be of meaningful value and a satisfactory

27 According to the Department of Institutional Planning quoted in UP (2016c) the total number of contact students at UP in 2015 numbered 49 152, of whom 52.2% were black and 55% were women.

and effective means to deal with this expectation has not been found. One could also, with little exaggeration, argue that it is wholly counterproductive to tick generic boxes on a checklist or to coach applicants through a process that is intended to allow for self-discovery and personal growth. Unfortunately these positions remain at opposite poles.

6.6. DISCUSSION: EPISODE 3 (2007-2016)

In the context of increasing numbers of applications from prospective students and pressure to address parity in the selection procedures for their admission to studies in architecture, the relevance and efficacy of the generic Matriculation Score became questionable. It was considered prudent to align new selection practices with the specific requirements and curricular objectives of the academic programme for which students would be selected and therefore a revised procedure was introduced for the intake of 2007 that saw a comprehensive set of assessment tools being deployed over four rounds of elimination and, subsequently, over three rounds of assessment.

For the period under review applicants have been engaged across a spectrum of considerations, by various means, in several formats and with different media. This is in keeping with the variety of challenges that facilitates a student's growth in a studio environment where generative design processes are engaged. It is believed that applicants are offered equal opportunities to reveal latent talents that would probably not be discovered through a process less intensive or one that did not value individuals for their own strengths and potential. The procedures have come to allow for self-expression by the applicant and a discovery of the discipline, the School and, to a degree, the Institution. These aspects are crucially important in light of the lack of exposure most applicants have had to these aspects. The procedure is also cognisant and mindful of local contextual imperatives and the selection practices of the School for the admission of beginner students in architecture have been refined through ongoing evaluation and were subjected to formal review procedures in 2015.

Although the selection project has, since 2007, required more input and dedication from members of staff when compared to the previous episode, this implicit cost-of-production component is returned and rewarded during their subsequent teaching of the successful applicants.

The typical academic indicators show marked improvement in the rates of attrition and retention, not only during the first year of study but also for the undergraduate programme as a whole. The rates of graduation have noticeably improved when they are compared to those of the previous episode of selection in the School and measured against the same outputs for all other three year qualifications offered at UP. These successes are also evident in the pass rate and GPA of first year students for the period under review and collectively point towards the success of the approach and the practices for selection.

6.7. SUMMARY

While few of the assessment tools introduced in 2007 were intrinsically new to an education in architecture, their individual and collective application and assessment have become the hallmark of the selection of beginner students in architecture at the School. This has realigned the endeavour of screening students for admission with some of the core values of an education in architecture, but synchronously extended the range of opportunities and possibilities offered by interdisciplinary learning and its tenets entrenched in the Department's specific approach to teaching and learning.

6.8. CONCLUSION

The fourth subproblem was to critically examine the trajectory of selection practices for the admission of beginner students in architecture at UP from 2007 until 2016.

The supposition to subproblem four was that the selection practices for the admission of beginner students in architecture at UP between 2007 and 2016 were specific to, and had a positive interrelationship with, teaching and learning in the programme for which students were selected. From the summary above and the foregoing analysis of the episode presented in this chapter it is evident that the supposition is supported.