

APPENDICES

APPENDIX A: QUESTIONNAIRE DOCUMENT

Official use only V1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1-4
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Questionnaire for Architectural Education
PART I

The following are questions relating to your personal information.
Please indicate the institution(s) at which you studied for your architecture qualification.

University of Pretoria	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
University of Witwatersrand	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pretoria Technikon	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Witwatersrand Technikon	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Specify if others	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Highest Qualification i.e. B Arch, M Arch etc.	<input type="text"/>			
Year of graduation	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Number of years you have worked since your graduation	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Age	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Sex: Female	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Male	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CAD Experience in Years	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Official use only		
V2	<input type="text"/>	<input type="text"/> 5-6
V3	<input type="text"/>	<input type="text"/> 7-8
V4	<input type="text"/>	9-12
V5	<input type="text"/>	13-14
V8	<input type="text"/>	15-16
V7	<input type="text"/>	17
V8	<input type="text"/>	<input type="text"/> 18-19

PART II

Please indicate, your answer by marking the appropriate box with an X, how well you were taught the topic/courses listed below during your period of study.

	No training	Poor	Adequate	Excellent	Official use only
1 Brief Preparation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	V9 <input type="checkbox"/> 20

2	Schematic design				
3	History of Architecture				
3	Building Technology				
5	Construction Drawings				
6	Structural / Mechanical design				

V10	<input type="checkbox"/>	21
V11	<input type="checkbox"/>	22
V12	<input type="checkbox"/>	23
V13	<input type="checkbox"/>	24
V14	<input type="checkbox"/>	25

		No training	Poor	Adequate	Excellent
7	Specifications and Codes				
8	Urban Design/Planning				
9	Computer-Aided Design				
10	Computerization				
11	Written Communication				
12	Graphic Communication				
13	Oral Communication/Presentation				
14	Client relations				
15	Office Management				
16	Budget Management				
17	Marketing				
18	Sociology and Human Behaviour				
19	Accounting				
20	Management				
21	Project Management				
22	Facility Management				
23	Interior Design				
24	Real Estate Development				
25	Housing				
26	Landscape Design				
27	Production				
28	Research				
29	Multi-Cultural awareness				
30	Environmental awareness				

Official use only		
V15	<input type="checkbox"/>	26
V16	<input type="checkbox"/>	27
V17	<input type="checkbox"/>	28
V18	<input type="checkbox"/>	29
V19	<input type="checkbox"/>	30
V20	<input type="checkbox"/>	31
V21	<input type="checkbox"/>	32
V22	<input type="checkbox"/>	33
V23	<input type="checkbox"/>	34
V24	<input type="checkbox"/>	35
V25	<input type="checkbox"/>	36
V26	<input type="checkbox"/>	37
V27	<input type="checkbox"/>	38
V28	<input type="checkbox"/>	39
V29	<input type="checkbox"/>	40
V30	<input type="checkbox"/>	41
V31	<input type="checkbox"/>	42
V32	<input type="checkbox"/>	43
V33	<input type="checkbox"/>	44
V34	<input type="checkbox"/>	45
V35	<input type="checkbox"/>	46
V36	<input type="checkbox"/>	47
V37	<input type="checkbox"/>	48
V38	<input type="checkbox"/>	49

PART III

The following are questions regarding your views on architectural education.

Please state whether you agree or disagree with the statements given below. Indicate your answer by marking **X** in the appropriate box.

		Strongly Disagree	Disagree	Don't Know	Agree	Strongly Agree	Official use only	
31	The school(s) I attended did a good job preparing me for the realities of business and practice.	1	2	3	4	5	V39	50
32	The architecture school(s) I attended did a good job providing me with a well-rounded liberal education.	1	2	3	4	5	V40	51
33	The Crit system of evaluating design work in schools of architecture is abusive, undermines teamwork, and should be reconsidered.	1	2	3	4	5	V41	52
34	In my school of architecture interaction between lecturers and students in the studio was characterized by lecturer domination of the students.	1	2	3	4	5	V42	53
35	More time should be spent on other subjects, such as technical and business aspects of the profession than the design studio.	1	2	3	4	5	V43	54
36	To encourage schools to place greater emphasis on practical and technical knowledge, students should be permitted to take at least part of their Professional Exams immediately after graduation.	1	2	3	4	5	V44	55
37	Schools of architecture are overemphasizing Computer- Aided Design at the expense of drawing skills.	1	2	3	4	5	V45	56
38	Schools of architecture should make gender diversity a top priority in their faculties.	1	2	3	4	5	V46	57
39	Schools of architecture should make racial diversity a top priority in their faculties.	1	2	3	4	5	V47	58
40	Architectural education teaches students to value design on drawing boards more than communication with the rest of the world.	1	2	3	4	5	V48	59
41	My architectural education taught me how to adapt and apply knowledge and skills to issues of my local context.	1	2	3	4	5	V49	60
42	All staff at accredited schools of architecture should be registered architects.	1	2	3	4	5	V50	61
43	What is taught in architecture school differs from what takes place in architectural practice.	1	2	3	4	5	V51	62
44	My school of architecture prepared me well for the interdisciplinary nature of practice.	1	2	3	4	5	V52	63

45	Design projects in my architecture school were client-specific rather than subject or need -specific criteria that reflect a holistic approach to design.	1	2	3	4	5	V53	64
46	As a student of architecture I was taught to do my own thing- that originality is a prerequisite for good architecture.	1	2	3	4	5	V54	65

		Strongly Disagree	Disagree	Don't Know	Agree	Strongly Agree	Official only	use
47	The split between formal lecture courses and the conceptual skills of the studio is responsible for the lack of understanding of design.	1	2	3	4	5	V55	V66
48	Studio component of architectural training must be given less emphasis and consequently have a reduced loading in the program.	1	2	3	4	5	V56	67
49	Students need to have more time for research in the architecture programme.	1	2	3	4	5	V57	68
50	My architectural education enabled me to apply knowledge and skills to issues of global context.	1	2	3	4	5	V58	69
51	Teamwork should be emphasized in architecture schools in recognition of the complexity of relations of those involved in the design process.	1	2	3	4	5	V59	70
52	The lecturers in my architecture school emphasized the importance of teamwork in the design process.	1	2	3	4	5	V60	71
53	Architecture students should understand the economic context in which they exist before they learn architectural design.	1	2	3	4	5	V61	72
54	My architectural education helped me understand the economic context in which I existed.						V62	73
55	Students should understand the cultural context in which they exist before they learn architectural design.	1	2	3	4	5	V63	74
56	My architectural education helped be understand the multicultural context in which I existed.	1	2	3	4	5	V64	75
57	Students should understand the political context in which they exist before they learn architectural design.	1	2	3	4	5	V65	76
58	My architectural education helped me understand the political context in which I existed.	1	2	3	4	5	V66	77
59	All lecturers in schools of architecture should be proficient in CAD.	1	2	3	4	5	V67	78
60	The coursework in my school of architecture emphasized the human	1	2	3	4	5	V68	79

		Strongly Disagree	Disagree	Don't Know	Agree	Strongly Agree	Official only	use
76	The program in my school allowed for attainment of outcomes at different points in time.	1	2	3	4	5	V83	94
77	The programme in my school allowed for multiple ways of representing knowledge and skills.	1	2	3	4	5	V84	95
78	The programme in my school allowed me to develop self-assessment as part of the overall assessment process.	1	2	3	4	5	V85	96
80	The architecture programmes in schools adequately prepares students for architectural practice in a global world.	1	2	3	4	5	V86	97
81	Theories of design described by studio lecturers differed from how the lecturers conducted themselves in the design studio.	1	2	3	4	5	V87	98
82	Learning of design was productive only to the extent that the students understood and accepted what the studio masters taught.	1	2	3	4	5	V88	99
83	Lecturers and students rarely questioned the assumptions and values underlying their theories in use in the studio.	1	2	3	4	5	V89	100
84	Lectures rarely helped students recognize the ideas and theories embedded in their studio work.	1	2	3	4	5	V90	101
85	Professionals aim to improve society's quality of life but they are ill prepared in their education to deal with the problems of the low-income majority.	1	2	3	4	5	V91	102
86	Contemporary architecture is an interdisciplinary practice.	1	2	3	4	5	V92	103
87	Architects can no longer rely only on their design skill to get work.	1	2	3	4	5	V93	104
88	Much of the theory acquired in my architecture school has been discarded early on in my professional life.	1	2	3	4	5	V94	105
89	Architects face competition from other professionals regarding delivery of projects on time and within budget.	1	2	3	4	5	V95	106
90	Architects should be taught project management skills.	1	2	3	4	5	V96	107

Strongly Disagree	Disagree	Don't Know	Agree	Strongly Agree	Official only	use
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91	To consolidate their position architects need to broaden the core areas of knowledge and understanding of the built environment.	1	2	3	4	5	V97	108
92	The problems of low-income majority are outside the architecture profession and disciplinary responsibilities.	1	2	3	4	5	V98	109
93	Contemporary practice requires that the architect be part of a group of professionals working in consultation with each other.	1	2	3	4	5	V99	110
94	Architects should acquire new knowledge to help deal with the problems of a diverse society of South Africa.	1	2	3	4	5	V100	111
95	Most practicing architects seldom recognize the multicultural aspects of society.	1	2	3	4	5	V101	112
96	Architectural practice in South Africa reflects the changes the global context.	1	2	3	4	5	V102	113
97	The architecture profession in South Africa reflects the needs of the market rather than society.	1	2	3	4	5	V103	114
98	Practicing architects and firms need to be committed to supporting schools of architecture through volunteer efforts and mentoring.	1	2	3	4	5	V104	115
99	Practicing architects disassociate themselves from the economic issues of South Africa.	1	2	3	4	5	V105	116
100	Practicing architects disassociate themselves from the political issues of South Africa.	1	2	3	4	5	V106	117
101	Practicing architects disassociate themselves from the social issues of South Africa.	1	2	3	4	5	V107	118
102	Architectural practice must respond to the complex urban and global issues by acknowledging contributions of other cultures and perspectives.	1	2	3	4	5	V108	119
103	Architectural practice becoming a global practice.	1	2	3	4	5	V109	120

Part IV

The following statements are about your experience and your beliefs with computer use in architecture school and practice. Please indicate by marking your answer with an **X** whether you agree or disagree with the statements given below.

104 I received computer training in my architecture school.

Yes No

105	The computer training I received in my architecture school was adequate.
106	The reasons why computers were introduced in my practice are because clients, facilities managers and building owners require CAD drawings of our designs.
107	The CAD operators in our office are all qualified architects.
108	Sharing of files with other members of the building team results in fewer errors and better-worked out details.
109	The scope of work for the architect has expanded as a result of using computers.
110	Keeping track of time taken for a project done using computers, is a difficult process in the practice office.
111	Because of computers the traditional relationship between the principal architect and the junior, to check the evolution of design, is no longer possible as the screens are normally filled with detail.
112	I received adequate Computer Aided Design (CAD) training in my architecture school.
113	Architectural firms now only hire new staff familiar with CAD.
114	Computers will change the way design is taught in schools of architecture.

Strongly Disagree	Disagree	Don't Know	Agree	Strongly Agree
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5

Official use only	V110	<input type="checkbox"/>	121
	V111	<input type="checkbox"/>	122
	V112	<input type="checkbox"/>	123
	V113	<input type="checkbox"/>	124
	V114	<input type="checkbox"/>	125
	V115	<input type="checkbox"/>	126
	V116	<input type="checkbox"/>	127
	V117	<input type="checkbox"/>	128
	V118	<input type="checkbox"/>	129
	V119	<input type="checkbox"/>	130
	V120	<input type="checkbox"/>	131

Thank you for your time spent answering this questionnaire. Kindly write your e-mail address in the space given if you would like to receive a copy of the results of our study:

APPENDIX B: LETTER TO ARCHITECTS

Finzi Saidi,
Department of Architecture,
University of Pretoria,
0002.

Friday, November 23, 2001

Dear Architect,

Architectural practice has been experiencing rapid change in response to the changes in the South African society, since the early 1990s. The response of curricula for schools of architecture to these changes in the practice of architecture has not been ascertained. The Department of Architecture at the University of Pretoria recognizes the need to gauge the performance and relevance of the existing architecture curricula. It seeks to understand new areas of knowledge which may influence existing curricula in order to enhance the quality of education it offers. To do this we are requesting for your assistance.

Change has also been taking place within the University. Since last year, the Architecture, Landscape Architecture and Interior Design programmes have been merged into one department- resulting in highly integrated curricula. All programmes now have a five-year duration for professional qualification.

We feel that these changes will be incomplete without considering the experience of practicing architects. As practicing architects that graduated at time when change in society was most paramount you have had valuable experience in dealing with the practical changes- from which we hope to learn. It is our belief that these issues have tested your knowledge in many ways. We would especially like to know your candid, honest opinion of how well your training in architecture prepared you for the changing practice environment, by answering our questionnaire that will take not more than fifteen minutes of your time. We believe your response will be making a great contribution to the teaching of architecture and shaping of curriculum for the future. We would like to offer you the results of our study if you so wish. Please note that the questionnaire should be printed in Landscape orientation if need be.

Kindly e-mail your response to saidi@postino.up.ac.za

Your willingness to assist us in this regard is greatly appreciated.

Very sincerely yours,

Finzi Saidi

APPENDIX C INTERVIEW WITH PROFESSOR LINDSAY BREMNER

Monday September 08, 2003

What makes the Wits School of Architecture different from other Schools of Architecture in South Africa?

This school has developed programme of architecture that is very strong in the teaching of architecture theory. It is a course that teaches its students critical and intellectual tools necessary for critical analysis of the environment. This school has its strength in that. This school is not good at teaching and developing the student's technical abilities and skills.

What is the mission of this school and how does it tie with the mission of the university.

Part of the mission of the University is community service. This department is one of the foremost supporters of Wits University's Community Service Scheme Unit. We have designed in our second and third year programme, a Design-Build course, quarter-modules in which the students are involved in design and actual production of furniture for crèches and refurbishment of building. Through these courses we expose our students to society's problems and it is hoped that through this method of students can see the relevance of architecture in society.

Are you involved in collaboration and rationalization with any institutions in region.

Yes, we had an agreement with Wits Technikon to teach our first year programme and also for them to take over the teaching of the technical courses of our undergraduate programme. We had intended for then to take over the teaching of the whole of the first year degree programme. Wits University approved this but because of the impending merger of Wits Technikon and RAU all this has been put on hold.

I would appear that Prof. Bremner supports strategic alliances with Technikons rationalizing the programmes.

Do you think indigenous knowledge is important for architecture in South Africa?

Yes our programmes are well attuned for producing graduates who can work very well as international practitioners and perhaps not for the local South African culture. We need to research as to how indigenous knowledge can used to create contemporary African architecture.

What we have in terms of IK at Wits Architecture School is that IK is included in the history course. We cannot say that IK is integrated in the design course where it would be more meaningful because it can be then applied to the students design problems. IK is not used to challenge the dominant Eurocentric values of architecture

(Henderson calls its Inclusive or perspective approach which acknowledges multicultural realities of the minorities but does not challenge the dominant culture [in McLoughlin and Oliver:2000:4]).

How do you think the architecture schools should be changing in terms of curriculum?

I think the way we are teaching architecture now is not rational. There are 13 programmes all producing the same product (architecture graduate). I think at Wits what I would like to see is we should only be teaching at post graduate level- at highly critical, theoretical and intellectual level that attempts to seek answers, in part about what African architecture is and should become.

Any other thoughts about architectural education?

I think the architecture schools in South Africa do a good job producing students for the first World environments which is why many of its' graduates are able to work in the Europe and America with little adjustments. But, architectural Education fails to produce architects that seriously address and question the issues of African environment with respect to architecture and the cities. There is little engagement with what the problems of the African cities etc. That is what I think architecture schools in universities should be teaching.

APPENDIX D INTERVIEW WITH PROFESSOR ORA JOUBERT

Interview with Professor Ora Joubert – HOD Architecture at University of the Free State. **Wednesday 6th August 2003**

The Discussion was based on a number of questions regarding architectural education in South Africa. The discussion was less structured but meant to establish the general trend and philosophy of the architecture department at Free State University

Question

What makes this department different from the others in South Africa.

Answer

Its location in region that characterized by small towns (doorpies) and farms sets the stage for low key architecture, much less in scale than the problems of the heavily populated urban centres of Gauteng and Western Cape. Therefore its architecture seeks create an architecture that has small town or rural architecture as it specialty.

Question.

What kind of curriculum should driven architecture in South Africa?

Answer.

First I believe that there are universal principles of design which every architect ought to master. These principles are mainly those that have been developed well in the Western civilization. These generally teach one how to design. They also have been well documented through the written records. However I believe that it is important for students of architecture to learn African History to be more aware of the continent in which they operate and further to study how pre-colonial and colonial history has shaped South Africa as a country. These describe the context in which architecture is practiced and informs one what is possible.

Question.

How does the changing students' demographics affect your department?

Answer.

We want more students of colour- the black students. At the moment we can't get black students not because of people's perception of this University being a formerly white only Afrikaans speaking university, but rather because of stiff competition from better placed professions like engineering, accountancy, medicine. Potential students of architecture in with the minimum requirements of science and mathematics opt to study these other programs because they are better paying and also these professions are well established. There is not a shortage of role models with regard to medicine, engineering and accountancy within their communities while there are

still very few architects of colour to have the same attraction to the architecture profession as there is for the medicine, engineering and accountancy.

APPENDIX E: LETTER TO SCHOOLS REQUESTING FOR CURRICULUM INFORMATION

C/o Professor S le Roux
Department of Architecture, Landscape and Interior Design
University of Pretoria
0002 Pretoria.
School of Architecture
University of Natal

Dear HOD

RE: REQUEST FOR CURRICULUM INFORMATION.

I am currently conducting a doctoral research at the University of Pretoria. My area of study is architectural education and how it is evolving in changing South Africa.

Part of my research requires that I examine the current curriculum content of professional architectural programs. I am kindly requesting that you forward to me, at your earliest convenience the following details:

- a) The objectives of your professional degree program(s).
The curriculum content and structure used to achieve the above objectives, giving the course descriptions and duration.
Your most recent document(s) submitted to accreditation board i.e. C.A.A
The recommendations from accreditation board following point (c).

If there is any other information which you may deem important for my study, kindly do forward it to me with the requested information.

Thanking you for your help.

Yours faithfully,

APPENDIX F: CLASSIFICATIONS OF QUESTIONS IN THE QUESTIONNAIRE

PART II

These questions address the body of knowledge that constitute architectural education. However because of differences in every school's philosophy of education some subjects may be emphasized more than others and some not be offered at all. The respondents answers thus can be used to judge the orientation of a particular architecture school may have been at a given point depending on the subjects the taught.

Questions V9 to V38	4 is the preferred answer
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Part III

What Question hopes to measure	Official number	Preferred answer
Preparedness for business and practice	V39	1 Strongly disagree
Architecture school's philosophy regarding liberal education	V40	5
How much architects value the importance of Crit as a method of teaching and evaluating design	V 41	1
Lecturers' influence and domination of their students	V 42, V88, V89, V90	1
Time spent on studio versus others subjects	V43	1
Measure whether architecture schools should teach more practical subjects than theoretical subjects	V44	1
Whether school were emphasizing computer skill than usual drawing skills	V45	1
Gender issues should emphasized	V46	5
Racial issues should be emphasized	V47	5
Whether students place more importance on their drawings than other aspects of design	V48	1
Measure whether knowledge gained was applied to local environment.	V 49-5, V91-1	****
The necessity of teachers of architecture to	V50	1

be able to practice		
The difference between architecture school and practice is extensive.	V51	1
Architecture was part of an interdisciplinary team in design.	V52, V 59 ,V60, V92	5

Projects in school did not reflect a holistic approach to addressing the needs of the world.	V53	1
Emphasis in architecture school was on individual thought to produce good design	V54	5
Design and other course are not well integrated.	V55	1
Whether architects feel the studio time should be reduced.	V56	1
Whether there is adequate research time for architecture students	V57	1
Architecture educational skills received were applicable in the global world- Global relevance	V58, V86, V 109	5
What architects feel about teamwork and what architecture school should do about it.	V52, V59, V 60,	5
Whether architecture education made students aware of their economic environment	V61, V62	5
Architecture education made architects aware of their cultural context.	V63, V64	5
Awareness of political context before architecture school	V65	5
Architecture school made architects understand their political context.	V66	5
Necessity for CAD proficiency for lecturers.	V67	1

The following questions were used to indicate whether the architectural educational system enabled democratic ideals to be realized by its students. This realization is essential for the establishment and maintenance of culturally responsive teaching in architecture schools.

1. Establish Inclusion What do we need to do to feel respected and connected to one another?	V68-5, V69-5, V70-5, V71-1, V 72-5, V 73-5, V 74-5	*****
2. Developing Attitude How can we use relevance and choice to create a favorable disposition toward learning?	V 75, V76, V77, V78	5

3. Enhancing Meaning What are active ways to increase the complexity of what we are learning so that it matters to us and contributes to a pluralistic democracy?	V79, V 80, V 81	5
4. Engendering Competence How can we create an understanding that we are becoming effective in learning?	V 82, V 83, V 84, V 85	5

Whether conduct in studio differed to the theories espoused in lectures	V87	1
Measure changes in the profession	V93-5, V94-1, V95-5, V96-5, V97-5, V99-5	5*****
Architects perception of the kind problems they could to be involved with in their profession.	V98, V100, V101, V103, V 105 , V106, V107, 108	
Relationship between schools of architecture and the profession	V104	5

Part IV

These are questions relating to computer training in school and their use in practice.

Received computer training at architecture school	V110	1
Whether architects received training and whether it was adequate	V111	5
Reasons for establishing CAD in practice office	V112	5
CAD operators' qualifications	V 113, V119,	5
Whether CAD improves work efficiency	V114, V116	5
Whether CAD is changing and creating new relationships in the office?	V 117	5
Whether CAD has generated new work for architects	V115	5
Architects received adequate CAD training in architecture school	V 118	5
Computers and its impact on architecture teaching	V 120	1