

and planning professions themselves. The fact is that as in the case of other universities in this country, many graduates in the fields of education with which the Faculty of Architecture is concerned, go overseas for their postgraduate education and training and, what is more, often do not return to practise in South Africa. In the past two years or so the Department of Town and Regional Planning has made considerable progress in dealing with the growing specialism in the Faculty of Architecture by instituting the Master's degree both in the specific field of Urban Design and in the specific field of Environmental Planning and also by instituting the Higher Diploma in Planning for Developing Areas, it being the aim of the Department to cater for Landscape Planning and other specialist courses in the future, particularly in view of the fact that this year as many as 12 students registered for the course leading to the Master's degree in Urban Design and 7 for the other postgraduate courses in the Department. But so far the University has been unable to cope with the growing specialism in the three other disciplines in the Faculty of Architecture. The main obstacle which has prevented the creation of a graduate School in the Faculty is a financial one and it is hoped that the members of the building industry and its allied industries on the Witwatersrand, including the professional wing, that is, the architectural, quantity surveying, building and town and regional planning professions in particular, will enable such a School to be established at Wits as soon as possible so that by means of the necessary postgraduate academic training and research these professions can contribute to national and also to international thought and action to the full extent of their capacities to do so. It would certainly appear that courses for postgraduate studies in architecture and environmental design could be offered and sustained without overtaxing too seriously the resources of the undergraduate School, especially if design, including architectural, urban, regional and landscape design, is the core of these studies and a wide variety of these studies is offered for selection. And even if the resources of the undergraduate School have to be supplemented to some extent to enable a graduate School to be established and maintained, the benefits to be derived from the setting up of the latter would be far greater in proportion to the expenditure which may be involved. From the rather limited number of postgraduate degrees which have so far been conferred by the University in all four disciplines of the Faculty of Architecture, as has been previously noted, it is evident that far more postgraduate students are needed from now on to enable the Faculty to fulfil its function and purpose in establishing and maintaining the highest possible standards of education and training so that the community will be properly and fully served and so that its ever changing requirements now and in the future will be adequately met.

#### Achievements of Wits Graduates

Of the achievements of teachers and graduates of the University of the Witwatersrand which redound to the credit of the Faculty of Architecture, the record is not an inconsiderable one especially in view of the fact that the Faculty, which is now 38 years old, is the third youngest of the ten Faculties in the University and that its predecessor, the School of Architecture and Quantity Surveying, in the Faculty of Engineering, was only 19 years old when it was accorded the status of a Faculty in its own right.

Notable amongst these achievements in the field of scholarship are Professor G E Pearse's "Eighteenth Century Architecture in South Africa" published in 1933 by B T Batsford, London and his "Eighteenth Century Furniture in South Africa" published in 1960 by J L van Schaik Ltd Pretoria, both of which are today rare items of Africana and his "A Social History of the Cape of Good Hope, 1652 - 1833, an account of its buildings and the life of its people", published in 1956 also by J L van Schaik Ltd Pretoria; Donald E Pilcher's "The Regency Style" published in 1948 by B T Batsford, London, for which he was post-humously awarded the M Arch degree at Wits in 1950; Professor D M Calderwood's "Native Housing in South Africa" published by the South African Council for Scientific and Industrial Research in 1955 and his "Principles of Mass Housing" published by the same publisher in 1964; Dr Rex Martienssen's "The Idea of Space in Greek Architecture" published in 1956 by the Witwatersrand University Press, Johannesburg; Professor Gilbert Herbert's "The Synthetic Vision of Walter Gropius" published in 1959 by the Witwatersrand University Press and his "Martienssen and the International Style: the modern movement in South African architecture" published in 1975 by A A Balkema, Cape Town; Professor Heather Martienssen's "Knowledge and the Fine Arts" published in 1960 by the Witwatersrand University Press, Johannesburg and her "The Shapes of Structure" published in 1976 by the Oxford University Press, London; Professor E W N Mallows's "Teaching a Technology" published by the Witwatersrand University Press in 1965; Professor Roy Kantorowich's "Durban 1985: a plan for central Durban in its urban setting", of which Lord Holford was the joint author and which was published by the City Council of Durban in 1968; Dr Doreen Greig's "Herbert Baker in South Africa" published in 1970 by Purnell, Cape Town; and Dr J Evenwel's "Modern Building Methods" published by the South African Council for Scientific and Industrial Research in 1971.

#### Scholarship Awards

Wits graduates and diplomates produced by its School of Architecture have competed

successfully for the major scholarships in South Africa, a notable case in point being that of the Herbert Baker Scholarship which was created by the late Sir Herbert Baker RA FRIBA in 1912, in appreciation of the patronage he received as a promising young South African architect from Cecil John Rhodes, but for which South African architects became ineligible when, in 1961, South Africa ceased to be a member of the British Commonwealth of Nations. No less than half of the total of 8 Baker Scholarships which were awarded in South Africa between 1912 and 1962 were won by graduates and diplomates of the University of the Witwatersrand, namely, N M Eaton, R A Bruce, D Lyall Watson and G Herbert. Another case in point is that of the Rhodes Scholarships of which the first to be awarded to an architectural student since their establishment by Mr Rhodes' Will in 1899 was won by the present writer in his final year of the B Arch degree course at the Wits School of Architecture in 1934.

#### Teachers produced by the Faculty of Architecture

In the academic field the record of the University of the Witwatersrand in producing teachers in all the disciplines for which its Faculty of Architecture is responsible, is without equal in this country and, indeed, there are few universities of similar development and size in the world which could claim such a record. Of these teachers at least 23 are in the category of professors of whom 13 became members of the teaching staff in the Wits Faculty of Architecture, namely, J Fassler, H M Martienssen, W D Howie, D M Calderwood, T J Olivier, G W John, C Walker, J Shunn, N N Patricios, A d' A M Guedes, I Schlapobersky, G P Quail & L J Cohen, 5 became teachers in other Universities in this country, namely, P Connell (University of Natal), G Quine Lay and his successor L Roodt (University of the OFS), I Prinsloo (University of Cape Town) and C T Welch (University of Port Elizabeth), and at least 5 became teachers in overseas universities. Notable examples of the latter are Professor R H Kantorowich who, after a distinguished career both as a practising architect and as a practising town planner in South Africa, became Professor of Town and Country Planning at the University of Manchester in 1961; Professor N L Hanson who, likewise, after a distinguished career as a practising architect and as an outstanding leader of the architectural profession in this country, became Professor of Architecture also at the University of Manchester in 1963 and served there as such until his retirement in 1971; Professor G Herbert who, after an illustrious academic career at Wits and at the University of Adelaide became Professor of Architecture at the Technion-Israel Institute of Technology in 1972; Professor P O Coltman, who having taught architecture and town planning as a lecturer at the University of Kansas, USA,

became Professor of Community and Regional Planning in the University of Texas, USA; and Professor R Levy, who in 1969, as previously noted, was the first M Sc in Building at Wits and who became a Professor in the Department of Environmental Studies in the University of Quebec, Canada.

#### Honorary Degrees

As one of the youngest Faculties of the University of the Witwatersrand the Faculty of Architecture is not without the status derived from the conferment of honorary degrees on those whom the University considers worthy of such recognition. For with the exception of the case of Sir Herbert Baker on whom the University conferred the honorary degree of Doctor of Laws in 1934, there have so far been five recipients of the honorary degree of Doctor of Architecture, namely, G E Gordon Leith in 1946, Professor G E Pearse in 1954, Professor Lord Holford in 1967, W Gordon McIntosh in 1972 and the present writer in 1977, and one recipient of the honorary degree of Doctor of Science in Quantity Surveying, namely, Professor T H Louw, also in 1977, the latter two instances being on the occasion of the Golden Jubilee of the Institute of South African Architects and the Association (until 1970 the Chapter) of South African Quantity Surveyors.

#### Gold Medal Awards and Other Honours

Such status is enhanced by the fact that of the 13 recipients to date of the Gold Medal of Honour of the Institute of South African Architects which was instituted in 1958 as an award to those members of the Institute and the Chapter of South African Quantity Surveyors who have rendered outstanding services in the practice of architecture or quantity surveying, no less than 8 are from the School of Architecture of the University of the Witwatersrand, namely, D S Haddon and Professor N L Hanson 1959, C Erik Todd MC OBE and S N Tomkin 1965, Professor G E Pearse 1966, N M Eaton 1967, Dr W G McIntosh 1968 and C M Sinclair 1970. In this connection it is gratifying to note that in 1960, 1964 and 1970 respectively, N M Eaton, Professor G E Pearse and Dr W G McIntosh were also awarded the Erepenning vir Argitektuur (Medal of Honour for Architecture) of the Suid Afrikaanse Akademie vir Wetenskap en Kuns for their contribution to South African architecture, and that S N Tomkin was not only a recipient in 1966 of civic honours from the City of Durban for his contribution especially to its town and regional planning developments over a period of nearly 40 consecutive years but was also elected, in 1970, an Honorary Fellow of the University of Natal in recognition of his outstanding services to education and training in the fields of architecture, quantity surveying,

building science and town and regional planning in this country and particularly in Natal. However, undoubtedly one of the greatest tributes to a past student and product of the Wits School of Architecture was that paid to Professor N L Hanson by the Building Industries Federation (South Africa), by the South African Council for Scientific and Industrial Research, by the Institute of South African Architects and by the Association of South African Quantity Surveyors when, in 1964, they jointly sponsored and have since maintained a major bursary in his name to commemorate his services to the building and allied industries in South Africa and his massive contribution to the national housing requirements particularly in his capacity as a member of the National Housing Commission for some fifteen years following the end of the Second World War, the Norman Hanson Visiting Fellowship, as the bursary is now known, being the largest bursary of its kind and also the one which has come to have the highest prestige in the building and allied industries of this country and in the professional wing of these industries. Other notable honours received by past students and products of the Wits School of Architecture were the election in 1972 of Professor D M Calderwood as a Fellow of the Royal Society of Arts in the United Kingdom in recognition of his massive contribution to the advance of knowledge and to education particularly in the fields of architecture, building and building science, and the election also in that year of the present writer as a Special Member of the South African Institute of Building for services to the building industry in South Africa.

#### Architectural Competitions

Wits architectural graduates have also competed successfully in a number of architectural competitions in this country, a notable instance being the international competition for the Johannesburg Civic Centre in 1962 which was won by a team of seven architects, all of them graduates of the University of the Witwatersrand.

#### The University's Building Requirements

In the challenging task of fulfilling its own building requirements the University has endeavoured to do so by employing its own graduates as a matter of policy for the purpose of carrying out this task. Indeed, during the last four decades there is not a building on the University's campus and on its properties in Parktown, where the Oppenheimer Hall of Residence for male students, the Graduate School of Business Administration and the new Medical School are located and in the area of Johannesburg adjoining Hillbrow, where the old Medical School and Library are located, which has not been designed by architects

who were educated and trained at the Wits School of Architecture or who were members of the School's teaching staff. As has already been mentioned, the building named and known as the John Moffat Building, in which the Faculty of Architecture has been housed since 1959, was designed as a home of its own by members of the teaching staff in the Faculty of Architecture and such members were also responsible for the design and construction of the University's Swimming Bath, the Great Hall and the other additions to the Central Block, the Bernard Price Institute of Geophysical Research Building, Douglas Smit House, the first and second Dental Hospitals, extensions to the existing Medical School, the Hillman Block, the Women's Residence and the layout of the central open space between the Central Block and the amphitheatre of the swimming bath, this space being the heart of the campus. Indeed, the design and all the other architectural services required for the largest and most recent addition to the University's buildings on its campus, namely, the Senate House, which was officially opened by Dr P Koornhof, Minister of National Education, on 10 August this year, was entrusted to Professor J Fessler. And it is gratifying to note that in 1973 the University commissioned H M J Prins, a senior member of the teaching staff in the Faculty of Architecture and M D Lennard, an ex-member thereof and the latter's partners Messrs C Irvine-Smith and H Joubert, all of them graduates of Wits, for its proposed new Performing Arts Centre which is to be located on the open area at the south end of the campus between the Senate House and the roadway which provides access to the campus from Jorissen Street. Indeed, another ex-member of the Faculty's teaching staff, Professor I Schlapobersky, has also been commissioned together with his partners for one of the University's future buildings on its campus, namely, the Environmental Sciences Building already referred to on page 26.

#### Economic Surveys

Not the least of the University's services is that which it rendered to the Institute of South African Architects and, through the Institute, to the South African Government in the form of reports on the periodical economic surveys which the Institute carried out in the Sixties under the sponsorship of the National Development Fund for the Building Industry in South Africa. The earliest of these reports and, in particular, those on the investigation into the economic state of the architectural profession in South Africa which were published in the April and May 1964 issues of the South African Architectural Record, were the work of Professor J E Kerrich, Head of the Department of Statistics in the Faculty of Science who retired in 1971 and whom Wits architectural graduates of the Thirties remember with esteem and affection as their teacher and mentor in mathematics.

#### The Faculty's External Examiners

Ever since the establishment of the Institute of South African Architects, which this year celebrated its Golden Jubilee, there has been the fullest possible co-operation and the most cordial relationship between the University of the Witwatersrand and the architectural and quantity surveying professions as corporate bodies. In pursuance of the statutory powers which were vested in the Central Council of these bodies "to direct and co-ordinate architectural and quantity surveying education" in South Africa the Central Council set up the Standing Committee on Education and Examinations in 1929 to deal with all matters pertaining to professional education, training and examinations. As an early instance of the co-operation between the Wits Faculty of Architecture and this Committee, the latter had occasion in 1941 to request the South African Universities with a School of Architecture and Quantity Surveying that, inter alia, non-University representatives be appointed to the Board of the Faculty by University Councils and that such members be appointed after consultation with the Central Council; also, that candidates in the professional subjects of the architectural and quantity surveying courses be examined by one internal and at least one external professional examiner and that the Institute of South African Architects be consulted in the appointment of such examiners; and, furthermore, that professional representation be provided on any committee or sub-committee appointed by the Universities for the purpose of selecting a candidate for a senior appointment in the Department of Architecture or Quantity Surveying. In response to the first two of these requests the Wits Faculty of Architecture agreed to submit the names of non-University members of its Board and of its external examiners to the Standing Committee on Education and Examinations for that Committee's information. And as far as the third of these requests was concerned, it was readily acceded to, because in any case it was the practice of Wits to invite representatives of the professions affected to serve on a committee for the selection of a candidate for any professional Chair.

In 1942 the name of the Standing Committee on Education and Examinations was changed to the Board of Education. And until 1970, in which year the structure, rights, powers, privileges and duties of the architectural and quantity surveying professions as corporate bodies in South Africa were changed by the Architects' Act No. 35 and the Quantity Surveyors' Act No. 36 respectively and the Board of Education and its functions thereby became defunct and were superseded by the Education Advisory Committee and that Committee's functions under the South African Council for Architects and under the South African Council for Quantity Surveyors, it was through the medium of the Board as a forum

for these professions and the Universities that the ideas and aspirations to maintain and improve standards of architectural and quantity surveying education and training were given effect.

From 1948, when the Board of Education, through its Inspection Committee, first inspected the Schools of Architecture and Quantity Surveying, it inspected them regularly every four years, that is, at three-yearly intervals until its demise in 1970. The Inspection Committee, which was representative of the architectural and quantity surveying professions as a whole and was augmented in the various University centres by local members of these professions, examined the students' work, examination papers and scripts, theses and so on, inspected the premises and facilities and interviewed the teachers and the students. It was thus able to compare the work and standards of the various Universities involved and to make recommendations to these Universities in the light of its findings with the view to improving their establishments particularly in respect of the teaching staffs, libraries, workshops and equipment required.

Since 1970 the architectural and quantity surveying professions as separate and independent corporate bodies, although lacking the power previously vested in them under the Architects' and Quantity Surveyors' Private Act No. 18 of 1927 "to direct... architectural and quantity surveying education" in South Africa, have co-ordinated such education through their respective Education Advisory Committees which for this purpose and, indeed, primarily for the purpose of determining whether the professional examinations conducted by the Universities are of a sufficient standard to be recognised by the architectural and quantity surveying professions as qualifying candidates for entry into these professions, have also in various ways inspected all the Universities with Departments of Architecture and Quantity Surveying, as did the predecessor of these Committees, namely, the Board of Education.

The Departments of Architecture and Quantity Surveying in the Wits Faculty of Architecture have undoubtedly greatly benefited from all these inspections and their close co-operation and cordial relations over the years with the architectural and quantity surveying professions as corporate bodies, especially in endeavouring to uphold and to raise the standards of education, training and examination for these professions, have enabled them to succeed handsomely in this regard.

As far as the building profession is concerned, it has since 1974 directed as well as co-ordinated the education and training required for entry into this relatively new but fast growing profession in South Africa by means of the Education Committee of the South African Institute of Building which consists of representatives of that Institute and the Heads of the Departments of Building, Building Science and Building Management in the various Universities and meets at least once a year to deal with all matters and problems pertaining to education and training for and in this profession. In the course of his duties the President of the South African Institute of Building visits each and all of the Universities annually, for the purpose, inter alia, of conveying to their Vice-Chancellors any educational problems which require attention and recommendations as to how these problems could be overcome. And, indeed, so determined is the building profession of this country to uphold and to raise its standards of education and training that each and every course has to be approved by the Education Committee of the South African Institute of Building before it is initiated by the Universities.

The town and regional planning profession as a corporate body has also been active in supervising town and regional planning education, training and examinations in South Africa. This it has done since the late Sixties also by means of an Education Committee which consists of the President, Vice-President and Past President of the South African Institute of Town and Regional Planning and the Heads of the Departments of Town and Regional Planning in the various Universities and which meets annually to take measures for maintaining and improving the standards of town and regional planning education, training and examinations in this country. To enable it to do so effectively, a Visiting Board periodically inspects the Departments of Town and Regional Planning in the Universities and reports on its findings to the Education Committee which in turn enables the South African Institute of Town and Regional Planning to determine whether the professional courses and examinations for entry into the town and regional planning profession in South Africa are acceptable. The first cycle of the Visiting Board's inspections was completed at the end of the Sixties and the second was commenced in 1974 and is not yet completed. On both occasions the standard of education, training and examinations required by the South African Institute of Town and Regional Planning was found to have been attained by the Wits Department of Town and Regional Planning, with the result that its courses and examinations for the Bachelor degree continue to be recognised for the purposes of membership in the Institute.

However, it is, above all, in the use of its own external examiners that the Faculty of Architecture has so far succeeded in upholding and raising its standards of education, training and examination and also its standards of the ideal of improving the quality of life in this country for all who live here. Notable amongst those whom the Wits School of Architecture and Quantity Surveying and subsequently the Wits Faculty of Architecture have selected to serve as external examiners and who are not in the category of having been or of being members of the Wits academic staff, are the following in alphabetical order, the courses in connection with which they have acted as external examiners being given in brackets :-

#### In the field of architecture

##### During the Twenties and Thirties

G S	Burt Andrews	(Theory of Structures)
Professor	F W Armstrong	(History of the Fine Arts)
N T	Cowin	(Specifications, Estimates and Quantities)
S C	Dowsett	(Sanitation and Hygiene)
F L H	Fleming	(Professional Practice)
A S	Furner	(Architectural Design; Freehand Drawing)
J	Lockwood Hall	(Building Construction; Nature & Properties of Building Materials)
Dr E J	Hamlin	(Sanitation & Hygiene)
Robert	Howden	(Professional Practice)
G E	Gordon Leith	(Architectural Design; Decoration & Furniture)
Professor	O J P Oxley	(History of the Fine Arts)
H	Porter	(Town Planning)
H W	Spicer	(Building Construction)
E H	Waugh	(Building Construction)
Professor	J Wheatley	(All final year subjects)
F	Williamson	(Architectural Design; History of Architecture)

##### During the Forties and Fifties

P R	Anderson	(Town Planning Theory & Practice)
P S	Aneck-Hahn	(Building Materials)
B S	Cooke	(Architectural Design)
A S	Furner	(Architectural Design; Building Construction; Town Planning)
D S	Haddon	(Professional Practice)
N L	Hanson	(Architectural Design)
R	Kantorowich	(Town Planning & Landscape Design)
Professor	G Quine Lay	(Civic & Landscape Design)
Dr W G	McIntosh	(Architectural Design; Building Construction; Town Planning)
H G	Summerley	(Building Construction)

During the Sixties and Seventies

Professor	B Bierman	(History of Architecture)
M L	Bryer	(History of Architecture; Dissertations)
S J	Buffler	(Theory & Practice of Architecture)
C D	Burde	(Dissertations)
Professor	A Burger	(Dissertations)
B S	Cooke	(Architectural Design; Dissertations)
J N	Cowin	(Professional Practice)
Professor	L Croft	(Professional Practice & Procedure; Dissertations)
E M	Dall	(Electrical & Water Supply of Buildings)
A	Dick	(Theory of Structures)
E N	Finsen	(Building Construction)
G J	Gallagher	(Architectural Design; Dissertations)
Ms F	Harmsen	(History of Art and Architecture)
R A	Heydenrych	(Theory of Structures)
A N	Lange	(History of Architecture; Architectural Design)
R H	Leigh	(Mechanical Equipment of Buildings)
M D	Lennard	(Theory & Practice of Architecture)
Dr W G	McIntosh	(Dissertations; Architectural Design; Building Construction)
W O	Meyer	(Architectural Design; Dissertations)
Professor	I Prinsloo	(Dissertations)
S J	Richards	(Dissertations)
M D	Ringrose	(Specifications)
J	Ritchie	(History of Art & Architecture)
G de Vries	Robbé	(Professional Practice & Building Legislation)
Professor	L Roodt	(Dissertations)
Professor	I Schlapobersky	(Theory & Practice of Architecture; Dissertations)
J S B	Taylor	(Architectural Design)
E	Tollman	(Dissertations)
J	van Straaten	(Architectural Technology)
Professor	C Tod Welch	(Dissertations)

In the field of quantity surveying

During the Twenties and Thirties

Professor	H Bell-John	(Specifications, Estimates & Quantities)
T	Moore	(Professional Practice)
Colonel	W E Puntis	(Quantity Surveying; Architectural Drawing; Elementary Quantities)

During the Forties and Fifties

E F	Allen	(Building Finance, Valuations and Estimates)
S C	Dowsett	(Quantity Surveying)
E B	Farrow	(Quantity Surveying)
N R	Law	(Estimates & Quantities)
W A	McKechnie	(Quantity Surveying)
R J C	Prentice	(Quantity Surveying)

J O	Quail	(Field Notes for Working Drawings)
P M	Roos	(Quantity Surveying)

During the Sixties and Seventies

R F	Bell	(Quantity Surveying)
C P	de Leeuw	(Property Economics)
Dr T J	de Vos	(Quantities)
G R	Dyus	(Professional Practice, Building & Survey Legislation)
S E	Hall	(Analysis of Prices & Building Costs)
D J	Rause	(Quantities)
J	Seaton-Hodge	(Estimates & Quantities)
D	Shaw	(Analysis of Prices & Quantities)
G J	Strickland-Cholmley	(Quantities)
I Y S	Whytock	(Survey Engineering & Quantities)

In the field of building and building science

During the Sixties and Seventies

G de C	Malherbe	(Commercial Procedures including relevant legislation)
Dr T W	Miners	(Production Planning & Design)
A	Moir	(Advanced Building Science)
P C T	Stirling	(Production Planning & Design)
M	Vasarhelyi	(Industrial Organisation & Management)
L H	West	(Industrial Organisation & Management)

In the field of town and regional planning

During the Sixties and Seventies

P R	Anderson	(Town & Regional Planning Theory & Practice; Dissertations)
L A	Barac	(Town Planning Practice)
K	Beavon	(Economic Geography & Economics in relation to Planning)
Professor	J F Beekman	(Professional Practice & Public Administration)
Professor	J Beinart	(Dissertations)
D C	Biggs	(Civil Engineering in relation to Planning; Urban Infrastructure)
B L	Carlson	(Town Planning Theory & Practice)
R	Davies	(Town & Regional Planning Theory)
W R P	de Swardt	(Town Planning Practice)
R L	Faccio	(Planning Theory & Techniques; Dissertations)
Professor	Z S Gurzynski	(Land Economics)
E J	Hall	(Civil Engineering in relation to Planning)
D	Jack	(Dissertations)
M	Kirchofer	(Town Planning Theory)
A B	Nichol	(Town Planning Theory & Practice)
M	Lowe	(Urban Design Theory & History)
H M	Marsh	(Town Planning Theory)
W	Mason	(Social Aspects of Planning)