

certificate in architecture of the University of the Witwatersrand which thereby made the holders thereof eligible for permission to practise in that country. This was a fitting tribute to 20 years of work and achievement on the part of Professor G E Pearse and to the work and achievements of his remarkable assistants, A S Furner and R D Martienssen, in raising the standard of architectural education at Wits to a level comparable with that of one of the leading countries of the world in the field of architecture. The University acknowledged this tribute by appointing Professor Pearse as a member of its governing body, the Council, on which he served during two of the most crucial years of the Second World War, namely, 1942 and 1943. In doing so he became the first member of the architectural profession to serve on the Council of the University of the Witwatersrand and, indeed, up till now, he is the only one to have done so.

As a result of the outbreak of the Second World War in 1939 student enrolment declined during the war years, but in accordance with the Government's war policy, university students were encouraged to complete their professional education and training before enlisting for service. For this purpose Wits established its own University Training Corps as a part-time unit of the South African Defence Force, the Training Corps being made up of engineering, artillery and infantry units which provided part-time training for members of staff as well as its student members. Most of the teaching staff in the School of Architecture and Quantity Surveying joined the Engineering Section. But Martienssen and his wife opted for and received their training in the Air Force Section, he as an officer in that Section and she as the Officer Commanding the Womens' Auxiliary Unit. It was in 1942 whilst he was attending a course at the Military College, Voortrekkerhoogte, near Pretoria, as a member of the University Training Corps, that he suffered a fatal heart attack. He was only 37 years of age at the time and his untimely death was a great loss not only to the University of the Witwatersrand but to architecture and more particularly to the cause of modern architecture which he pioneered in South Africa and, indeed, also in the international field, both as a brilliant exponent thereof and as an extraordinarily effective teacher.

From the academic standpoint, the war period was for Wits a period of marking time. The real effect of the 1939-1945 war made itself felt only at the beginning of the 1946 academic year when some 2200 returned soldiers enrolled for courses in all the Faculties of the University, thereby increasing the total number of students from some 3150 in 1945 to some 5260 in the following year. This imposed a great strain especially upon the

professional Faculties in which the teachers were hard put to cope with the sudden increase in student numbers and at the same time to maintain academic standards. Extra temporary staff had to be employed and additional accommodation provided in the form of 13 temporary hutments in the middle of the campus. The Faculty of Architecture did not escape the inconvenience of the disruption caused to academic routine during the immediate post-war years. And, indeed, so great were the needs for accommodation due to the increase in the numbers of students after the peak period immediately following the end of the Second World War that some twenty five years were to elapse before the last of the hutments were demolished and removed from the campus.

Notable amongst the extra temporary staff who were employed to cope with the extraordinary increase in student numbers due to ex-service men enrolling for courses in the Faculty of Architecture as in every other Faculty at Wits in the year following the end of the Second World War, were the late R L Niebuhr, who served as a part-time Lecturer in Architecture from 1945 to 1947; H N Joubert, who was a full-time Lecturer in Architecture in 1946; the late A G Stewart, who served in that capacity from 1946 to 1948 and shortly thereafter became one of the very few members of the architectural profession who left it to enter the building industry as a building contractor; the late D E Pilcher, who was a part-time lecturer in Architecture from 1947 to 1949; and E M (Betty) Spence and her husband C Pinfold, who became temporary full-time Lecturers in Architecture in 1945 and 1948 respectively and served in this capacity until 1958. Of these temporary members of staff all except C Pinfold were Wits architectural graduates, D E Pilcher being awarded the M Arch degree at Wits posthumously in 1950.

In 1944 W A McKechnie of the firm Farrow Laing & McKechnie, Quantity Surveyors in Johannesburg, succeeded Professor Bell-John as a part-time lecturer in the sub-department of Quantity Surveying in the Faculty of Architecture and as the director of education and training in that sub-department, and he served as such until the end of 1946, having been assisted in that year by J W S Castleton who was employed at Wits at the time as a temporary full-time Senior Lecturer in Quantity Surveying.

In anticipation of the expansion of the national economy in the post-war period which, as it turned out, happened at a rate unequalled by that in any other western country excepting the United States of America and Canada and, in anticipation particularly of the need for developing new towns as well as expanding existing urban centres throughout South Africa,

the Faculty of Architecture introduced in 1945 a postgraduate Diploma in Town Planning, for architects, civil engineers and land surveyors. The course for this Diploma was one of two years' duration, but in 1949 it was extended to three years and was made available also to holders of BA and B Sc degrees with Honours in Geography and to holders of MA and M Sc degrees whose dissertations for these degrees dealt with some branch of geography related to Town and Regional Planning. As such, this Diploma received recognition by the Royal Town Planning Institute of Great Britain, which meant that holders of the Wits Diploma were exempt from that Institute's final examinations. Wits thus initiated the first town planning education and training in South Africa.

At the same time and in response to the growing demand for courses in the History and Appreciation of Arts, the Department of Architecture having already for many years provided courses leading to the degree of Bachelor of Arts with Honours in Fine Arts for students outside the Department, the Department of Fine Arts was established as an autonomous department in the Faculty of Arts, but under the aegis and control of the Department of Architecture. This development was to have a significant influence on the courses in design and on the work of the School of Architecture in these courses particularly in that, until the middle Sixties, due emphasis was given to visual education and training in the principles of basic design and to the study of architectural history, both of which have since then largely been ousted by education and training of a strictly technological nature in most if not all of the Schools of Architecture in this country. The Wits School has nevertheless played a leading role in preparing its architectural students visually and artistically as well as technologically for the practice and production of architecture. Indeed, with the exception of the years in the middle and late Sixties and the following five years, the educational policy of the School, particularly since Professor A d'A M Guedes was appointed to the Chair of Architecture and became its Head in 1975, has been and happily continues to be such that it enables the golden mean to be achieved and maintained between technological education and training on the one hand and visual and artistic education and training on the other. This is of fundamental importance to the architectural profession, for without a proper and adequate artistic and visual education and training and a close understanding of the fine arts it cannot but fail to satisfy the society it serves or purports to serve and in doing so it will not only cease to justify its existence but will also eventually cease to exist as such. In any case there is no room today for the old but still persistent prejudice that art and technology are different and incompatible interests. For although we, including also the rising generation of architects,

quantity surveyors, building technologists and town and regional planners, are divided by schooling and experience and we differ, though we differ rather less in our aptitudes, we nevertheless share an underlying basis of common ability which must be explored and exploited as far as possible if we are to succeed in developing and shaping our world for human purposes in accordance with human rights and values and aims rather than for lesser ends. It is true that as architects and town and regional planners, our interest, for example, in mathematics, has usually been killed by unimaginative teaching just as the visual and artistic interest of many if not most quantity surveyors and building technologists has been killed by the lack of intellectual and emotional pleasures of art in their education and training. So the sooner we learn to appreciate the complementary relationship of art and technology and the forces thereof, the better able we shall be to unite in a common sensibility and understanding in order to determine how we can best help to broaden and liberate our culture for all to participate and obtain fulfilment in it.

In 1947 the teaching staff of the Department of Architecture was augmented by the appointment as a Lecturer in Architecture of a Wits graduate, G Herbert, who two years later was to become an Associate Editor of the South African Architectural Record and served as such for 11 years and who in 1957 was to win the Sir Herbert Baker Scholarship and later became Professor of Architecture and Dean of the Faculty of Architecture and Town Planning at the Technion-Israel Institute of Technology in Haifa, Israel.

At the same time also in 1947 J W S Castleton succeeded W A McKechnie as a part-time lecturer in the sub-department of Quantity Surveying in the Faculty of Architecture and as the director of education and training in that sub-department. During that year, N R Law, also of the firm of Farrow Laing and McKechnie, acted in J W S Castleton's place to enable the latter to visit the United Kingdom. And in 1948 the staff of the sub-department was augmented by the appointment as a part-time Lecturer in Quantity Surveying of R B Milford of the firm Venn and Milford, Quantity Surveyors, in Johannesburg.

In 1947, too, Professor Pearse retired from the Chair of Architecture and in 1948 was succeeded in this office and as Head of the School of Architecture and Quantity Surveying by his protégé Professor J Fassler. For some twenty-seven years Professor Pearse had directed and built up the School from its small beginnings into one of the leading Schools of Architecture in the British Commonwealth, of which South Africa was a foundation member. His retirement marked the end of an era in architectural education and training at Wits and,

indeed, also in this country. But in anticipating the post-war period of expansion especially in the environmental field, by supporting and actively participating in the establishment of the Department of Fine Arts and in the setting up of a postgraduate diploma course in Town Planning at Wits in the last two years before he relinquished his office in the service of the University, he enabled the Faculty of Architecture to enter a new era equipped and prepared as fully as possible at that time to meet whatever demands and challenges the new era would bring.

In 1949 W G McIntosh was awarded the Wits Diploma in Town Planning and so became the first university trained architect and quantity surveyor in South Africa to qualify also as a town planner so trained. In 1949, too, after two years of study at the Courtauld Institute of Art in London, Heather Martienssen obtained the Ph D degree of the University of London for a thesis on the Georgian architect Sir William Chambers (1726 - 96) and two years later she was appointed Senior Lecturer in the Department of Fine Arts in recognition of its growing importance in the University and also in recognition of her exceptional capabilities in directing and developing it especially during the critical war years. As a lecturer both in the Department of Architecture and in the Department of Fine Arts since 1941 she taught the Theory and Practice of Art, the History of Painting, Sculpture and Architecture and also Art Criticism and in 1954 she became the Head of the Department of Fine Arts. But this Department developed so quickly and effectively under her leadership that in 1957 a Chair of Fine Arts was established to which she was immediately appointed and with this appointment she won the distinction of being the first woman to become a professor at the University of the Witwatersrand.

Meanwhile the teaching capacity of the Department of Architecture had been markedly increased by the appointment in 1950 of a Wits graduate, J Morgenstern, as a lecturer who in partnership with his wife, also a Wits architectural graduate, was later to practise with distinction as an architect and town planner in Johannesburg and, in 1957, by the appointment of an additional Lecturer in Architecture in the person of E W N Mallows who eight years later was to become the first Professor of Town and Regional Planning at Wits and indeed, at the same time also, the first such professor in South Africa. In 1959 W D Howie was appointed an Associate Professor in recognition of his service to the University which then covered a period of 22 years, and in that year, too, J Beinart, an architectural graduate of the University of Cape Town, joined the teaching staff as a lecturer in the Department of Architecture where he served as such for six years, winning the Sir Herbert Baker

Scholarship in 1961 and then serving as the Professor of Urban and Regional Planning at the University of Cape Town from 1965 to 1970 since when he has been Professor of Architecture in the School of Architecture and Planning of the Massachusetts Institute of Technology, Boston, USA. At the end of 1958 J W S Castleton retired as a part-time lecturer and as the director of education and training in the sub-department of Quantity Surveying in the Faculty of Architecture and in 1960 he was succeeded in the latter capacity by R B Milford, his post as a part-time Lecturer in Quantity Surveying having been filled in 1958 by the appointment of C Walker who, twelve years later, was to become the first Professor of Quantity Surveying at Wits. This appointment was followed in 1961 by the appointment of E M Pincus and M D Lennard as Lecturers in the Faculty's Department of Architecture.

In 1959 the Faculty of Architecture and the Department of Fine Arts had moved to a home of their own on the campus, a new building designed by Professor J Fassler in association with W D Howie, G Herbert, J Morgenstern, J Shunn and U Tomaselli, all of whom at the time were members of the staff of the Department of Architecture. This was the first of the buildings to be completed in the University's post-war building programme and it was named and is known as the John Moffat Building, in tribute to Mr John Abram Moffat, a Johannesburg architect who died in 1941, having bequeathed some £ 100,000 which was to be paid to the University fifteen years after his death on condition that the fund be used for some such purpose as a building. At the same time the main lecture theatre in this building was named the Dorothy Susskind Auditorium in appreciation of Mrs Susskind's work as Chairperson of the University Towns Festival held on the campus in 1955, in raising some £93,000 for the University. The building was a notable addition to the University's facilities for teaching and study, comparable environmentally as well as architecturally to buildings of a similar nature and purpose at universities elsewhere throughout the western world, a feature of the facilities being the divisional library serving not only the Faculty of Architecture and the Department of Fine Arts but also the University as a whole.

During the Fifties, town planning as a discipline in the Department of Architecture had made such progress that this was duly recognised when, in 1960, the Royal Institute of British Architects' Award for Distinction in Town Planning was made to the Head of the School of Architecture, Professor J Fassler, for his services to town planning education and training in South Africa. And by 1961 this discipline had developed to the extent that in that year a division or sub-department of Town and Regional Planning was established,

which in 1965 was granted full departmental status and a Chair of its own, to which Professor E W N Mallows was then appointed. This resulted in the postgraduate diploma course being augmented by a new undergraduate course of four years' duration leading to the degree of Bachelor of Science in Town and Regional Planning. Nine students enrolled for this degree course when it commenced and when the Department of Town and Regional Planning became an autonomous and constituent department of the Faculty of Architecture in 1968, there were 24 undergraduate students taking this course and a staff of two full-time teachers in town and regional planning to educate and train them.

Furthermore, as the result of pressure from the building and allied industries of this country as a corporate body, namely, the Building Industries Federation (South Africa) and with a generous subvention from the Federation's National Development Fund for the Building Industry in South Africa, a four-year degree course leading to the degree of Bachelor of Science in Building, was instituted in the Department of Architecture also in 1965, with the object of supplying the need for men educated and trained to fill technical, executive and managerial roles in the building and allied industries. The Fund's subvention was on an annual basis and enabled a Chair of Building Science to be established, to which Dr D M Calderwood, a triple graduate of the University of the Witwatersrand who, in 1953, gained the distinction of becoming the first Doctor of Architecture in South Africa, was appointed in 1966, having previously served as a research officer in the National Building Research Institute of the Council for Scientific and Industrial Research in Pretoria. Only 10 students enrolled for this degree course when it commenced, the staff consisting of one full-time and one part-time teacher. But five years later, when the division of Building Science became an autonomous and constituent department of the Faculty of Architecture in 1970, there were 106 students pursuing this course and a staff of five full-time and three part-time teachers to conduct it.

At the end of 1965 R B Milford, who had served the sub-department of Quantity Surveying as a part-time Lecturer in Quantity Surveying for eighteen consecutive years and as the director of education and training in that sub-department for the last six of those years, retired and was succeeded in the latter capacity by C Walker. At the same time, too, M D Lennard retired as a Lecturer in Architecture and joined in partnership with H N Joubert and C C Irvine-Smith as practising architects in Johannesburg.

In 1967, that is, ten years ago, when T J Olivier was appointed as a lecturer in the

Department of Building Science, the total enrolment of students in the Faculty of Architecture was 255, consisting of 235 European, 18 Asiatic, 2 Coloured, but no Black students, of which 239 were male and 16 female. It was in this year that Professor J Fassler resigned in order to devote himself to the design and erection of the new Senate House in his capacity as the University's architect for this major building project.

This was at a time when the University was experiencing great difficulty in obtaining sufficient teaching staff for its School of Architecture. But, as always, the difficulty was overcome with the aid of its own alumni who during the late Sixties volunteered their services to the School as part-time teachers and assisted the architectural students in their design courses. Notable amongst these alumni was P L Schwellnus, an exceptionally brilliant and creative young architect who, besides practising his profession, particularly at the time in collaboration with the present writer on the Johannesburg Civic Centre project, devoted much time and energy to teaching his students at Wits, until his untimely death in 1971 at the age of 32. To the present writer it appeared as a foregone conclusion that Paul Ludwig Schwellnus would have developed as one of the great architects of his time.

In 1968 Professor G E Pearse died and, with his passing, the last remaining link with the beginnings of architectural education and training on a formal and also on a university basis in South Africa was severed. And in 1969 another of his protégés, Professor W D Howie, was appointed as Head of the Department of Architecture, Quantity Surveying, Building Science and Town and Regional Planning, in succession to Professor J Fassler.

From the educational standpoint, what was remarkable at this time was that the Faculty had by now reached a position which was unique in English-speaking universities particularly in that it had come to embrace the four related disciplines concerned with the production of the human environment. It could offer a wide variety of courses which ranged not only from large-scale planning such as town and regional planning to the design of buildings and building complexes but also from costing and accounting to the execution of buildings and the realisation of building projects. Indeed, in this respect it had entered a new era. For with the increasing demand for specialisation in the building and construction industries as in all other industries with a growing scientific and technological base and content, its main task thenceforth would be to prepare future members of the professional components of the building and construction industries for specialisation

in their respective fields of work.

At the same time, however, it would have to ensure that in preparing students for the professional ranks of those industries, they would become architects, quantity surveyors, building executives and managers and town and regional planners who would understand and appreciate one another's problems, outlooks, aims and approaches and would be able to communicate and collaborate with one another in a manner which is essential for those industries to function efficiently and effectively in supplying the national building and construction requirements. One of the most important advantages to be gained from the diversity and greater variety of the disciplines embraced by the Faculty and from the growing inter-disciplinary links with the Faculty of Engineering, the Urban and Regional Research Unit, the Educational Technology Unit and the "service" departments, is that henceforth their courses could be co-ordinated and made to serve so that the special needs of each discipline would be duly fulfilled and a broader more integrated education would be achieved. Certainly the greater intellectual stimulus and cross-fertilisation of ideas that are engendered by such education was bound to create mutual understanding, respect and appreciation between the professional components of the building and construction industries which could only benefit therefrom.

Professor Howie lost no time in directing the educational policy and aims of the Faculty of Architecture towards these ends. He immediately went overseas to study courses then being offered in Great Britain and in Europe especially in the architectural field and thereafter succeeded in transforming the Faculty's outlook, image and morale in a way which augured well for its future development and indeed also for the future development of education in architecture, building and planning in this country.

In 1969 Professor Mallows retired, by which time the Faculty had played such an important part in the field of town and regional planning education and training that for the most part the present generation of practising planners in this country had been trained at Wits or had received their training from holders of the Wits Diploma in Town Planning and, furthermore, that every other university town or regional planning course in South Africa had either been derived from the Faculty's Department of Town and Regional Planning, as in the case of the Universities of Natal and Pretoria, or had been actively influenced by that Department or its diploma holders, as in the case of the Universities of Cape Town, Stellenbosch and Potchefstroom.

During 1969 there was a further development in the structure of the Faculty of Architecture in that full departmental status was granted to building science under Professor D M Calderwood and again, during 1970, in that such status was granted also to quantity surveying under G W John, a Wits diplomate in quantity surveying who was appointed an Associate Professor in the Department of Quantity Surveying and as the Head of that Department in 1971. There were 65 quantity surveying students at the time and a staff of two full-time and four part-time teachers in the Department of Quantity Surveying.

At the same time the Department of Building Science had played an active part together with the Building Industries Federation (South Africa) in creating the South African Institute of Building which was established in 1970 to fulfill the need of the building industry in this country for a professional body of its own, with the main object of promoting the art, science, technology and practice of building and education in these fields and also of encouraging research. This body, whose membership consists, inter alia, of graduates, students and professors and lecturers in Building and Building Science at a South African university, enables a direct link to be maintained between the Department of Building Science and the building industry as a corporate body.

Another important development at this time in relation to the Faculty of Architecture and particularly in relation to its Department of Town and Regional Planning was the creation by the University of a Chair of Urban and Regional Studies to which Professor T J D Fair, Professor of Geography at the University of Southern Illinois, USA was appointed. This Chair was the first of its kind in South Africa and was established at Wits for the purpose of conducting research into urban and regional problems of the Witwatersrand and nearby areas.

In 1970, too, the teaching staff in the Department of Architecture was strengthened by the appointment as a Senior Lecturer in Architecture of H M J Prins, a Wits architectural graduate with many years of professional experience and a fine record of achievement particularly as a member of the firm of Hanson Tomkin and Harris of Johannesburg and Durban until he retired therefrom in order to devote himself to teaching architecture.

But undoubtedly the most significant event of the year 1970 not only as far as the Faculty of Architecture but also as far as the University itself was concerned was the conferment of the B Arch degree on Abdool-Aziz Ahmed Tayob who thus became the first Indian to

graduate with a degree in architecture in South Africa.

In 1971 J M Shunn, a member of the teaching staff in the Department of Architecture, was appointed an Associate Professor in recognition of the 25 years of service which he had by then rendered in that Department and in the Faculty of Architecture and in that year, too, the University acknowledged the service of U R Tomaselli, a teacher in the School of Architecture for the same period at that time. 1971, however, was also the year of Professor J Fassler's untimely death which was a severe blow to the University, the effects of which were mitigated only by the fact that he had already completed his design of the Senate House, and also by the fact that because the Wits School of Architecture still urgently needed teaching staff, the Urban Action Teaching Group offered its services as a teaching group to the University and these services were gratefully accepted. This Group was an offshoot of the Urban Action Group which had been formed some four years previously by a few past students of the Wits School of Architecture, notably G J Gallagher, W O Meyer and I Schlapobersky, with the object of encouraging the sound development of cities in South Africa both in their growth and in their renewal; of conferring with the Institute of South African Architects and also with the central and provincial governments and local authorities in this country on matters of urban development and renewal; of conserving buildings and landscapes of aesthetic and historical significance and of gathering and disseminating information by means of lectures, seminars and papers etc., in support of these objects. In 1971 and 1972 the Urban Action Teaching Group conducted the third-year courses in Design and the History of Architecture and the students greatly benefited thereby. The teaching by the members of the Group was voluntary and the salaries which accrued to it for this service were set aside as a fund, part of which was used to finance the visit in 1970 of Robert Venturi and his wife Denise Scott-Brown of the USA as visiting lecturers in the Department of Architecture. This teaching service to the University by the Urban Action Teaching Group was invaluable to the Wits School of Architecture, the more so because it was most needed at that time and it is undoubtedly the most important contribution the Urban Action Group has made since it was formed some ten years ago. Notable amongst its members are B J Britz, S J Buffler, C D Burde, B S Cooke, C J Cooke, H O Frang, G J Gallagher, D Jack, P Jones, A N Lange, R Levitan, C MA Liber, W O Meyer, F H Pienaar, P M Poplak, I C Prinsloo, S Rathouse, R V Rippon, H J Schirmacher, I Schlapobersky, B Spooner, C Stretton, B Vloothuis and D Waldman. As most of them are in the 35 - 45 years of age group, it is hoped that the Urban Action Group will fulfil the promise it has shown in endeavouring to contribute to architecture

and town planning and to architectural and town planning education and training in this country and particularly in the Transvaal where most of its members are located.

After the retirement of Professor Mallows the Department of Town and Regional Planning was directed by Acting Heads, J P Lea during 1970 - 1971 and J G Muller during 1971 - 1972. Upon the latter's resignation a committee consisting of Professors Mallows and Fair and Drs Patricios and Lea was set up to manage the Department. Dr Patricios was appointed Chairman of the Governing Committee and Acting Head of the Department for 1973 with Dr Lea alternating in this capacity for portion of 1974. In April 1974 Dr Patricios was appointed to the Chair of Town and Regional Planning and became Head of the Department.

At the end of 1973 Professor Howie retired due to failing health. He died in 1974, at the age of 61, at a time when architectural education in South Africa, as indeed elsewhere throughout the world, had come to be rigorously investigated and reviewed. The work of the Commission of Inquiry to investigate the Education and Training of Architects in South Africa under the chairmanship of Dr T L Webb, appointed by the State President on 26 July 1974, is a notable case in point. The findings and recommendations of the Commission have still to be reported and made public and it is no exaggeration to say that Professor W D Howie would have made a major contribution to them not only because of his great knowledge and experience as an educator but also because of the depth of his perception, the soundness of his judgement, the breadth of his vision, and, not least, the practicality which he brought to bear on whatever problems he tackled. His untimely death was a great loss to architectural education in South Africa.

More than two years elapsed after his retirement before he was succeeded in the Chair of Architecture and as Head of the Department of Architecture. His successor was Professor A d' A M Guedes who for 25 years had practised with distinction as an architect in Lourenç Marques, Mocambique, and, like his predecessors Professors J Fassler and W D Howie, had graduated at Wits as a product of its School of Architecture.

In 1973, too, Associate Professor John retired and was succeeded as Head of the Department of Quantity Surveying by Professor C Walker who was also appointed to the Chair of Quantity Surveying which had been created in 1972. With this appointment Professor Walker, who for many years had practised with distinction as a quantity surveyor in