

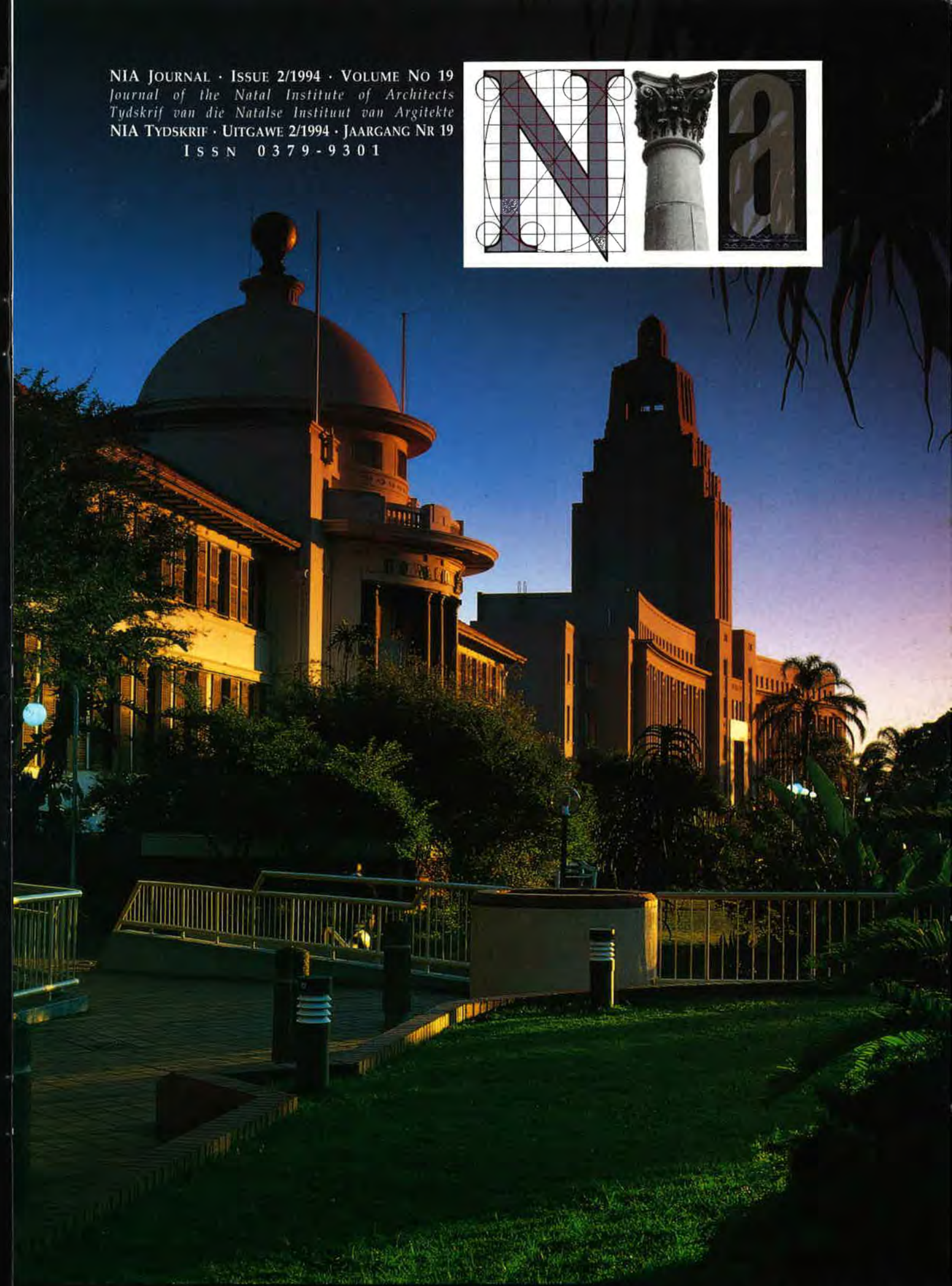
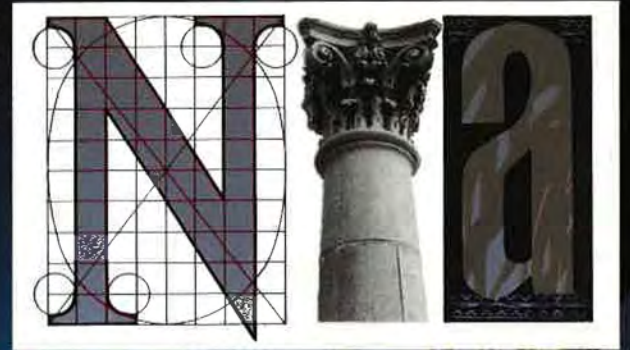
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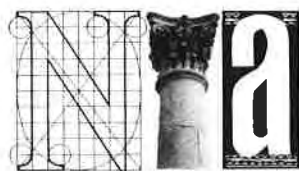
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University of Natal - Faculty of Architecture & Allied Disciplines



NIA JOURNAL · ISSUE 2/1994 · VOLUME 19 · ISSN 0379-9301

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Faculty of Architecture & Allied Disciplines

From the President...

UNLIKE many, the Department of Architecture of the University of Natal is located in a Faculty of cognate disciplines. It is important that the professional teams that ultimately realise the built environments already become interconnected during their periods of tertiary education.

The Faculty of Architecture & Allied Disciplines on the Durban campus became operational in 1975, almost two decades ago, when Emeritus Professor Leslie Croft successfully motivated for a separate Faculty. Then the Departments of Architecture & Quantity Surveying, a single entity housed since 1949 in the Faculty of Engineering, were joined by the new Department of Town & Regional

Planning, originally in the Department of Land Surveying; and the new Department of Building Management.

With the inauguration of Denis Shepstone Building in 1973, 21 years ago, the Departments which constitute the Faculty were given a single home, with studios right alongside the Faculty Library, since named the Barrie Biermann Architectural Library.

To mark the "coming of age" of the working together to address the challenges facing KwaZulu-Natal, the NIA is proud to feature the workings of the various Departments and the resources that enable quality teaching. Also, manifestations of synergy: BESG

and UNAHTU, the interdisciplinary Housing programme and the new School for Development Studies.

This issue of *NIA Journal* is presented to inform practitioners of the academic standing and milieu of architectural education at the University of Natal. It is hoped that the contents will be of relevance in fielding questions from prospective students of the built environment. The profession's goodwill and support is vital to the continuance of the Faculty's reputation in academic excellence. Any lowering of standards in the quality of graduates ultimately reflects on the profession.

Rodney Harber, President of the Natal Institute of Architects

COVER: The Durban campus of the University of Natal prides itself with two declared National Monuments: Howard College (left) by W Hirst, 1931; and Memorial Tower Building (right) by Powers and Powers, 1947. Interestingly, the Department of Architecture and Quantity Surveying was initially accommodated in MTB.

Except where otherwise credited, all photographs in this issue are by Craig Hudson.

This issue was compiled and edited by Derek Wang and Walter Peters.

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The NIA and the Department of Architecture

The relationships between the Natal Institute of Architecture and the Department of Architecture of University of Natal are both close and amicable.

Over the years the part-time assistance of numerous practitioners have made an invaluable input to the Department. Currently some 32 members of the profession are contributing to the Department in honorary, external examiner or part-time capacities. In the Simulated Office Programme alone, 9 practising architects act as clients to student "practices". Bill O'Beirne is Honorary Professional Consultant, a role assumed after Sonny Tomkin served a formal term of some two decades and a longer one unofficially.

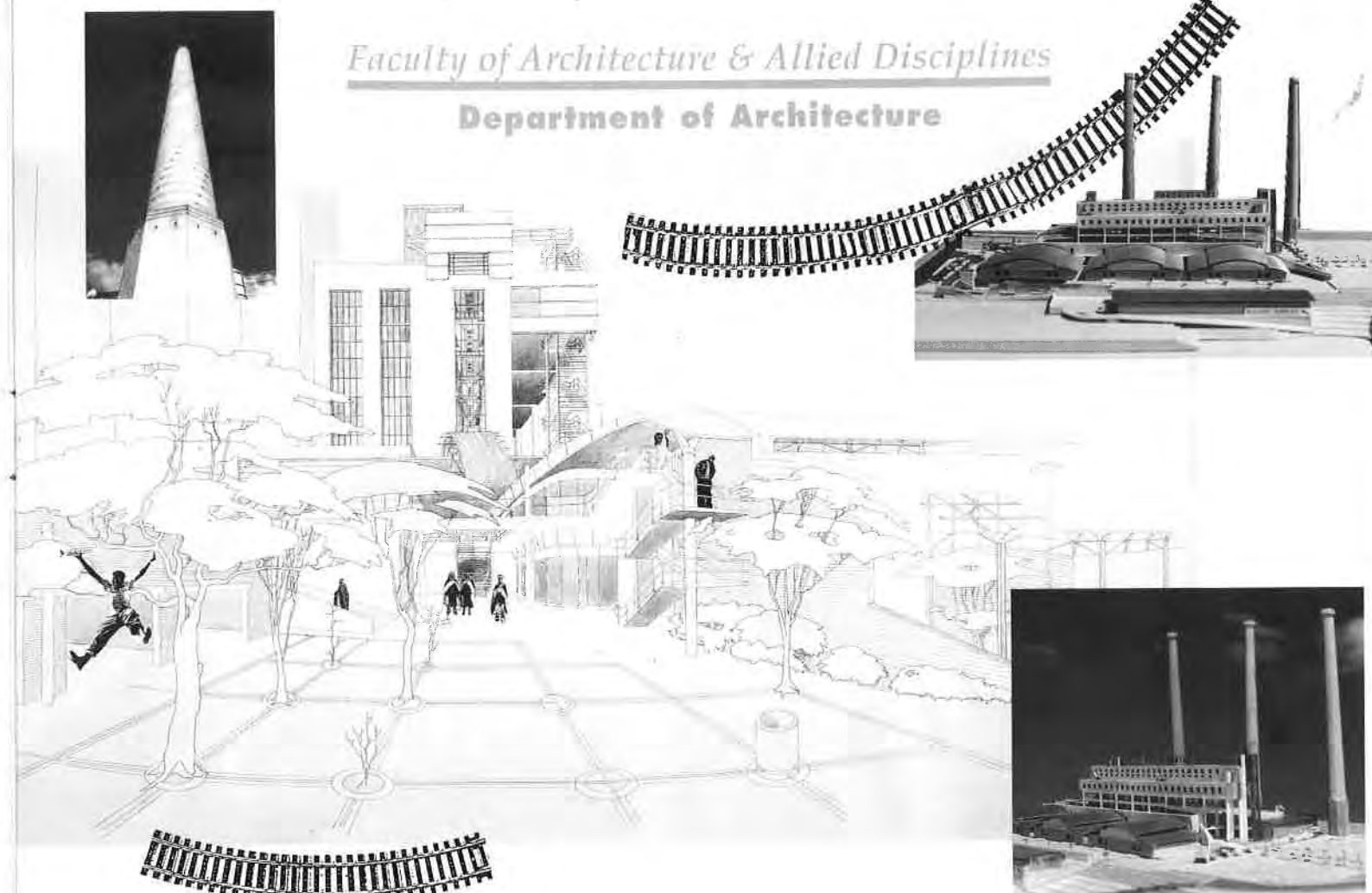
The NIA Foundation Fund makes a generous annual donation to the Barrie Biermann Architectural Library, and, in turn, members of the NIA have the privilege of using the library resources, both technical and academic as well as the archives of old drawings.

Staff of the Department participate in the running of the Institute. Staff serve on the various committees, and the Department has provided the NIA President on two occasions: Ted Tollman served 1982-4; and Rodney Harber is the current incumbent.

Currently the Department has some 200 registered students including higher degree candidates, (Quantity Surveying has 107 students; Building 44; Town Planning 38 and Housing 17). Many students have bursaries and scholarships, some are financially supported by architectural practices.

Twenty-five years ago, the NIA : Department of Architectural Liason Committee was established.

This committee is charged with facilitating contact between staff, students and the profession by arranging on a regular basis educational, social and sporting events.



Education in architecture is at least as undecided an issue as is the field of architecture itself. At the University of Natal we seek to acquaint students with the skills demanded of the professional designer without neglecting the debates surrounding the meaning and practice of architecture.

When the University of Natal was instituted in 1949, the Department of Architecture and Quantity Surveying was established, and a 6-year Bachelor of Architecture degree course was offered.

In 1990, a new qualifying structure was established. In this, the distinction is drawn between general education in the discipline of architecture and the specialist professional education which leads to registration as an architect. After four years, the former culminates in the award of a B Arch degree, which enables graduates to extend their studies by research or into the fields of Town Planning, Housing, Building Economics or Development Studies. Selected graduates may study for one year towards the Postgraduate Diploma in Architecture which is recognised by the South African Institute of Archi-

tect as leading to eligibility for professional practice as an architect.

As of 1995 the nomenclature of the qualifications is to be changed to B Sc (Architecture) and B Arch respectively to bring the final qualification into line with that offered at other South African universities.

Studying Architecture at Natal

The Natal Department of Architecture is strategically located at the interface of both the first and third worlds, in a society in transition, which throws the problems facing modern culture into stark relief.

Design, whether it be the design of a teacup or an airport is a synthesis of function, culture, materials, production, marketing and aesthetics; it is the art and act of making. Design is problem-solving, it is invention and innovation, the essence of creative fulfillment.

Architects are the designers and therefore the creators of the built environment and the courses offered are directly related to the basics of learning about this environment: architectural theory and design; the history of architecture and of the built environment; building construction and ser-

vices; the theories of structures and building science. As students progress, their education is extended from simple to complex and integrated building design. Elective courses are offered in senior years to allow students to tailor their curricula to their interests.

The course is demanding yet varied in content and individual performance is monitored by the critical and continual assessment of creative work; the submission and marking of essays and tutorials; and the writing and marking of formal examinations.

Peter Stewart, Acting Head

CURRICULUM

B Sc (ARCHITECTURE) DEGREE [Bachelor of Architecture]

The following courses extend through the 4 years of undergraduate study:

Architectural Design: Process or rarefied magic?

Designing in the built environment is the domain of the generalist; one who searches for a holistic, interdisciplinary understanding of the problems at hand. The studio is the environment for design learning and teaching. This system evolved from the tradition of apprenticeship under a master, and whilst still main-

Faculty of Architecture & Allied Disciplines

Department of Architecture

taining a high staff: student ratio, the contemporary studio is more properly seen as a process of peer-supported inculturation into the discipline. Thus, the role of the studio staff has been transformed from one of transferring data or design technique to that of facilitating and cultivating a studio ethos of enquiry, experimentation, and problem-centered group-learning. Any theoretical position espoused by a studio staff member is subject to scrutiny and evaluation since there is currently no safe doctrine from which to operate. Paradoxically, this generates a more mature level of integration on the part of the student.

Douw van Zyl

Theory of Architecture: The Routing of doctrine

In this subject we aim to equip students with a theoretical competence in respect of the ideological positions occurring in the contemporary architectural milieu, and their concomitant societal dynamics.

Theory is not only based on practice, it is constructed in practice, by the way of reflective action. Inherited truths are questioned, and urban environments are explored as much for their ecological qualities as the individual buildings which they support.

Readers may be tempted to consider such projects as "just exercise in high art". It could be countered that we have a surfeit of low art in much of what has been built this century.

Douw van Zyl

Building Technology: Nuts & bolts

This course comprises a twofold emphasis on building construction and services and progresses from simple to complex buildings, their structures, components, services, materials and finishes.

After a basic course in principles of construction, building materials and their combinations, the student is expected to extend and integrate that knowledge in the design studio.

As complexity increases, students are made conversant with documenting systems and production drawings, the various facets of the building industry in which they will be operating, the chemistry and weathering of materials and possible remedial action.

Peter Stewart

History of Architecture [Visual Arts Studies]: Vitruvius, Palladio & all that

The Department was fortunate in attracting two architectural historians of calibre into its ranks virtually at its inception. The infusion into the Department of Ronald Lewcock and the late Barrie Biermann was decisive in establishing the particular character of the Natal BArch course wherein the teaching of the History of Architecture occurs within a theoretical approach and with a critical involvement.

These founding historians eschewed Euro-centrism and wrote what became standard works on South African historical architecture. Following Biermann, an interest in indigenous and local architecture has been extended by Brian Kearney and maintained by the present staff.

The Visual Arts Studies curriculum was based on a typology relating to scale in parallel with studio programmes. More recently a chronological approach

is evolving in which the emphasis is on the understanding of the ethos of different time periods.

Walter Peters

The other courses: Leavening the product

Whilst the above courses extend throughout the curriculum, the Building Science and Theory of Structures courses extend for 2 and 3 years respectively.

In the Building Science courses we aim to arouse a sensitivity toward those environmental elements which have significant bearing on the architectural aims of comfort and energy efficiency.

In the third and fourth years of study, students are encouraged to emphasise their strengths and interests by constructing a part of their own curriculum from a number of elective courses. These are each of a semester's duration and students choose five of those offered by the Department or from other courses in the University, subject to the approval of the Head of the Department. Courses offered departmentally include: Acoustics; Architectural Conservation; Ecosystemic Design; History of Technology; Housing in Development; Landscape Architecture; Post-Modernity and Architecture; 3-D Computer Rendering; and Special Studies, which may be on the student's selected and approved topic, or a course offered by a visiting lecturer. The electives offered vary from time to time according to staff availability and student interest.

Derek Wang

B Arch DEGREE

[Postgraduate Diploma in Architecture]

The one year B Arch degree is intended for graduates of the B Sc (Architecture) (Natal) degree or equivalent from another university, who wish to pursue a professional career in architecture including membership of the Institute of South African Architects and registration with the South African Council for Architects.

The first semester is centered on the Simulated Office Programme, a design, construction detailing and documentation studio project carried out by groups of students in partnerships. Practising architects act as clients and, to stimulate co-operation between the disciplines, students from other Departments participate. The objectives of the subjects Professional Practice and Law for Architects are integrated in the programme.

The second semester is reserved for the Design Dissertation, in which individual students research an approved subject and prove their proficiency in its design and technical development. The oral examination is conducted by a panel of jurors both internal and external to the Department.

Peter Stewart

POSTGRADUATE STUDIES

In the past, higher degrees in Architecture (M Arch and Ph D) have been offered by the Faculty by research only, with the exception of the Senior Doctorate (D Arch) which is based on a record of work.

It is the intention of the Department to establish a Southern African architectural history and conservation research unit and thereby formalise an established expertise of the University of Natal. Besides

attracting researchers and higher degree candidates, it is the intention to foster undergraduate interaction, to accept commissioned research, and to promote the ethic of research through publication. It is also the intention to simultaneously introduce an M Arch (Conservation) degree. This degree would be geared to the reality of the country and be structured for distance learning. Candidates with a 4-year degree from various disciplines would be eligible, lectures would be held in blocks, and project or tutorial work could be by correspondence. The degree would be over two years, with coursework offered in modules and a dissertation requirement in the second year. Architects and other interested parties could attend modules to acquire specialist career skills. Interested persons should contact the undermentioned authors on (031) 260-2699.

Dennis Radford, Walter Peters

STUDENT SELECTION FOR ARCHITECTURE

Two decades ago the Department realised the need for a test geared especially to selecting students for architecture. Empirical tests cannot measure creativity and three-dimensional perception and the Department adopted a system of tests and personal interviews. For example, candidates were asked to describe their bedrooms to a blind person or to draw the then ubiquitous Volkswagen beetle from above. With the increase in numbers of applicants, these tests became cumbersome. Today matriculation performance is scored on the Swedish Formula whereby applicants with a score of 35 or more are eligible. An additional indicator is provided by the home language mark, and not mathematics, since syntax, vocabulary and expression are the elements of architectural design. Besides that, commitment and architectural awareness are probed by way of a brief portfolio of work including a self-portrait; a drawing of a favourite building; and any other creative work.

The results of these tests are then tempered by commitments to the geographic region of KwaZulu-Natal and to candidates educationally disadvantaged. It may be of interest to note that the Faculty of Architecture has the highest percentage of foreign students on campus, mostly from surrounding States.

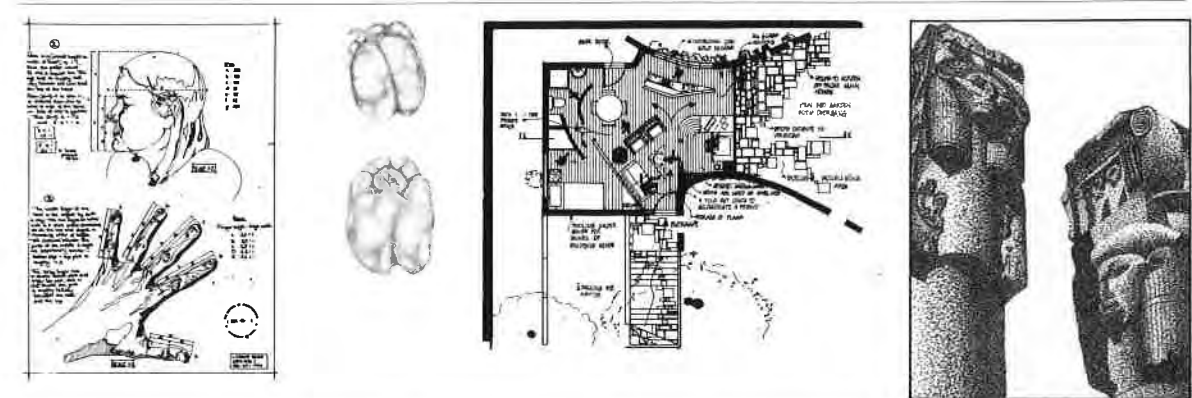
Rodney Harber

Faculty of Architecture & Allied Disciplines

B Sc (Architecture) Degree [Bachelor of Architecture]

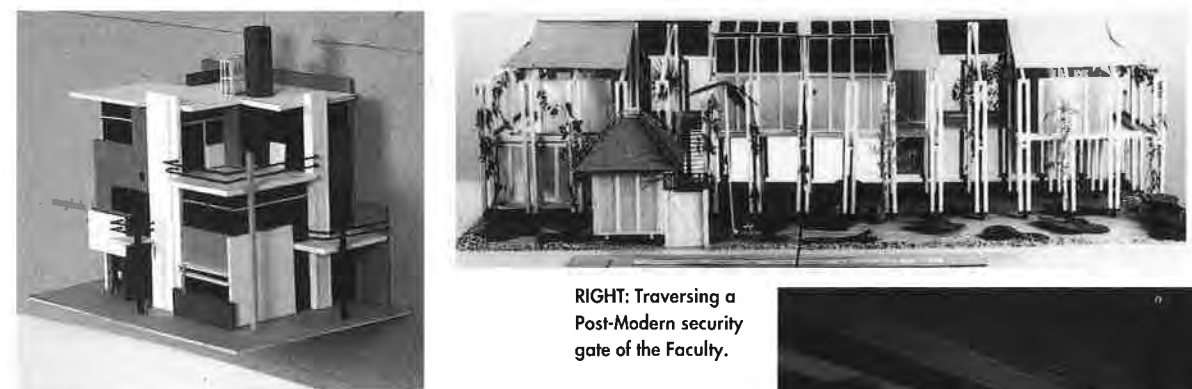
1st Year

LEFT TO RIGHT:
Anthropometric Studies, Lindsay Bush, 1994;
Analysis of Natural Form, Emma Gallacher, 1994;
Plan: Accommodation for an Independent Young Adult, Barbara Beier, 1993; Egyptian architecture: Temple of Hatshepsut, Visual Arts Studies 1 tutorial, Lindy Osborne, 1990.



2nd Year

Addition of a guest suite to Rietveld's Schroeder House (1924) two years after completion, Visual Arts Studies 2 project, Craig Baudin and Gray Jordan, 1993; Model of a House for a Permaculture Protagonist, Gavin Houldin, 1994.



RIGHT: Traversing a Post-Modern security gate of the Faculty.

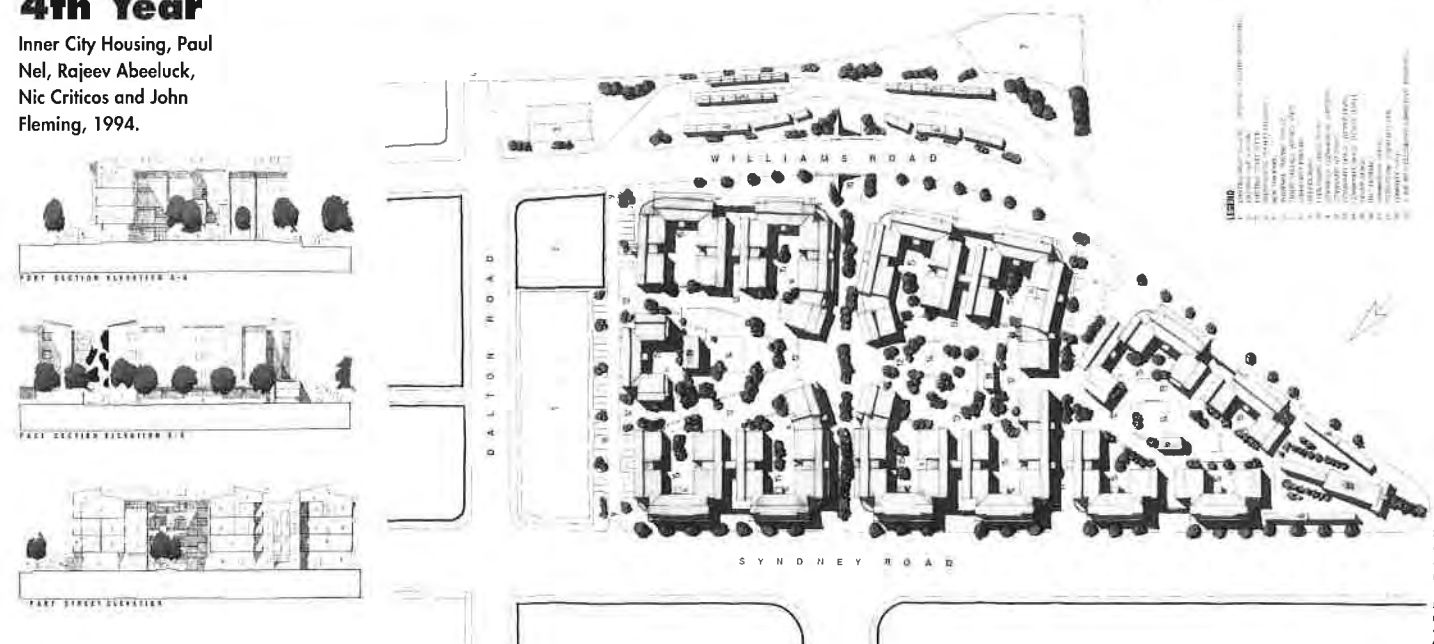
3rd Year

Volumetric model of S. Giorgio Maggiore church, Visual Arts Studies 3 project, Lindy Osborne, Paul Nel and Lucinda Hart, 1993; Headquarters for Durban Publicity Centre, Don Albert, 1993.



4th Year

Inner City Housing, Paul Nel, Rajeev Abeeluck, Nic Criticos and John Fleming, 1994.



Faculty of Architecture & Allied Disciplines

Department of Property Development & Construction Economics

In 1992, the Departments of Quantity Surveying and Building Management were amalgamated to form the single Department of Property Development and Construction Management, while continuing to offer the two degrees of Quantity Surveying and Construction Management.

Construction, in keeping with most other areas of scientific and creative endeavour, has now become much more complex than in any previous period. This complexity has expressed itself in the increasing sophistication of construction products, their means of production, and in the range of diverse activities in which the construction industry is involved. Whilst, on the one hand, the large construction firms compete to deliver multi-storey office buildings or new commercial or industrial facilities, on the other hand the industry also has many smaller firms that produce single housing units, clinics and schools. On one side of town, a construction professional is required to deal with the latest high-rise technology to erect a large building in the centre of a busy city. On the other, he or she may be grappling with the organisational complexity of delivering 8000 serviced sites to an informal community using local skills and labour.

The modern construction industry has an essential contribution to make to the economic and material well-being of mankind. The products of the industry are necessary for the provision of shelter, the creation of services infrastructure and for the productive and recreational endeavours of the community. The macro-economic contribution of the industry is considerable. The labour-intensive nature of construction places it in a central role as a creator of job opportunity in labour surplus economies.

The industry today needs professionally trained people who can understand and apply modern management methods in differing environments. It requires managers who can direct the activities of professional staff, interact constructively with client communities, offer advice on construction problems, and manage the people, materials and machinery which comprise the construction process.

People will always need homes, places of work and places of recreation. The population of South Africa is growing rapidly. The implications of this for the industry are staggering. More, better and increasingly adaptable management is vital. Graduates in Construction Management and Quantity Surveying will be called upon to provide this in the years ahead.

DEGREES OFFERED BY THE DEPT

The aim of the Department of Property Development and Construction Economics is to produce graduates who are capable of managing the processes of development in the developed as well as the developing sectors of South African society. The undergraduate specialisations of the Department, in the disciplines of Construction Management and Quantity Surveying, are structured to equip graduates to fulfil adequately the respective roles of managers of projects and financial specialists in diverse construction environments.

In order to respond to this diversity of opportunity, the curricula of the B.Sc.(Construction Management) and B.Sc.(Quantity Surveying) degrees (which typically take four years to complete) require candidates to become proficient in a wide variety of subjects including Construction Technology, Information Technology, Statistics, Management, Development Studies, Economics, Law & Property Appraisal. The programmes are substantially semesterised to offer maximum flexibility in the duration of study towards each degree. Semesterisation also accommodates the possibility of interspersing study with periods of employment in industry or in the profession, affording students the opportunity to gain valuable experience and funding for further studies.

Lecture programmes are supplemented with regular site visits and simulation exercises. Site visits are of particular importance in the instruction of technology, and encompass the reviewing of building works in the Durban environment, major civil engineering works (eg. the Lesotho Highlands Water Project), housing developments and informal settlement upgrade programmes. Students are encouraged to participate with staff in community service activities so as to foster an understanding of the broader community in deprived urban and rural settings.

The Department makes every attempt to remain at the forefront of developments in information technology. Considerable attention is directed towards developing a familiarity with computers. Students enjoy the use of several computer laboratories and a specialist laboratory which is dedicated to applications specific to the two disciplines. Students are encouraged to become computer literate during the first year of study and to develop their skills in computing during the following years of study.

POSTGRADUATE STUDIES

The Department offers a Masters degree by coursework in the field of Building Economics, arranged in two specialisations, one focusing on the specifics of developing areas and the other focusing on developed environments. The programmes are both of two years duration, and their modular structure allows them to be taken on either a full-time or a part-time basis. The division of the curricula into groups of compulsory core modules and electives allows students to shape their curricula to their interests. Both programmes are project driven, being intended to afford practitioners the opportunity to advance their knowledge and refine their skills in their chosen area of specialisation.

Robert Taylor, Head of Department

Faculty of Architecture & Allied Disciplines

Department of Town & Regional Planning

It is widely agreed that South Africa faces a number of critical development challenges in the coming decade: demands for housing, infrastructure, and services in both urban and rural areas; the need to restructure cities and regions and to address inequalities and inefficiencies; to manage processes of urbanisation; and to initiate sustainable development processes. The Master's degree in Town & Regional Planning aims to educate generalist planners and is orientated to providing an appropriate conceptual and practical basis which will enable future professionals to meet these challenges, as well as to fulfil the more traditional planning roles.

Whilst Town & Regional Planning is generally concerned with the development of policies, plans, programmes and projects which have a distinct spatial or geographical component to them, the work which planners undertake, and the fields of planning which have developed over the past few decades, have gone far beyond the purely spatial or physical. Current planning practice is deeply involved in the social, economic and political aspects of urban and regional development.

Even where planning is more narrowly defined, it is an extremely complex process, the outcome of which virtually always has political and economic implications, as well as spatial results. Inevitably these implications are seldom neutral in nature, so that, while planners traditionally attempt to uphold the "public interest" and particularly the "long term public interest", their intervention is usually to the advantage or disadvantage of one or other section of society. Particularly in a society which has historically discriminated on the grounds of race, class and gender, we believe that planners need to recognise the importance of their plans in contributing to redressing of historical inequalities.

The Department is committed to the development and promotion of both policies and processes which incorporate the views and needs of the people who will be affected by them, particularly people who have been historically disadvantaged.

COURSE OUTLINE

The MTRP curriculum was modified in 1991 in the light of international thinking about the context in which planning takes place, as well as the experience and perceptions of planners practising in the KwaZulu-Natal region. The curriculum is thus new and at this stage unique (at least in South Africa), though it reflects international trends.

It is designed to develop students' understanding of the linkages and interactions between the social, economic and political aspects of urban society on one

hand, and the physical or environmental framework within which these take place on the other. This is central to the ability to understand and predict the social, economic and political consequences of planning action in the physical environment. Without this understanding the chances of achieving desired goals are small and the chances of producing unintended negative consequences are large. The development of this understanding, which we believe can be effectively achieved only in the academic environment, forms the core of the first year of study. The second year of the programme offers students the opportunity to explore in depth some of the concepts and fields of planning considered in the first year.

CURRICULUM

First Year

The first year programme aims to provide a broad overview of planning, focusing on the linkages and interactions between society, urban and regional development, and planning thought over time. It also covers a range of techniques in planning, and planning practice at a variety of scales.

The Planning Theory & Practice component includes history of cities, approaches to city form and design; urban, social, development and planning theory; and processes of urban, regional and rural development in the Third World. Planning Techniques cover land use planning, quantitative methods, property development, planning law, community participation and professional practice. Project Work is arranged in four parts: Residential Area Analysis; Structure Planning; Metropolitan Planning; and Regional Planning.

Second Year

In the second year of study, students must complete four courses, of which two are compulsory. Dissertation Methodology involves selection of a topic for dissertation, initial reading around the topic, design of appropriate research methodology, and preparation of a detailed study proposal. After completion of this module, students can proceed to the Dissertation. The format of the dissertation may vary, from purely academic work on planning theory to a very practical exercise; it must, however, contain a significant element of research and be presented in an acceptable academic format.

In addition to these courses, students must choose a further two specialised areas to explore in some depth, from a range offered by the Department. The options offered reflect the research, teaching and consulting interests of the staff of the Department, and are orientated towards the critical issues currently facing planners in the region. It is intended that practising planners will also be admitted to study individual modules as mid-career training exercises in order to increase the relevance of the modules and introduce a higher level of experience into student interactions. In 1994, the following options were available: Metropolitan Planning & Development; Regional Planning & Development; Community-based Planning; Layout & Subdivision; Project Management; and Advanced Housing Policy.

Peter Robinson, Head of Department

Faculty of Architecture & Allied Disciplines

Housing Masters Programme

South Africa faces an enormous housing challenge with an estimated housing backlog of about 1 million units. Moreover, some 7 million people in South African urban areas live in housing that does not conform to acceptable standards, due to lack of access to basic inputs such as land, building materials, finance and jobs. The Urban Foundation estimates that in order to eliminate the backlog and also accommodate lower occupancy rates, South Africa will have to provide some 200 000 units per annum. The current rate of supply by both the public and private sectors is about 35 000 units per annum. A huge increase in housing supply is clearly needed.

Apart from the South African situation, housing is an issue of significance in the Southern African region and indeed the whole of sub-Saharan Africa and other developing countries. The United Nations Centre for Human Settlements (Habitat) estimates that approximately 60 per cent of the African population inhabit shanty towns, slums and uncontrolled settlements. It is also estimated that almost 14 million people live under conditions that can best be described as 'homelessness'. Africa's annual shelter requirement is around 10 million dwellings per annum (UNCHS, 1991).

The growth in demand for people with skill in the housing field, as well as the immense complexity of the housing challenge, necessitates the training of housing professionals who will be able to provide the leadership and the skills to make a meaningful impact.

A postgraduate housing programme at Natal University is certain to make a contribution to the training of housing specialists, not only from South Africa, but from other countries as well. It is noteworthy that no other South African university offers an undergraduate or postgraduate degree in housing. Indeed, few universities in Africa offer a degree course in this field.

COURSE OUTLINE

Housing Theory & Practice

The purpose of this course is to introduce students to the field of Housing Studies. The primary focus is on exposing students to different approaches including: neo-classical economic perspectives, neo-marxist conceptions, culturalist approaches, feminist theories, sustainable development approaches and post-modern perspectives. The course also introduces students to the evolution of housing theory and practice both in South Africa and internationally.

Advanced Housing Policy & Management

The purpose of the course is to equip students with an understanding of housing policy issues and debates at an advanced level. Moreover the course is geared to equip students with the technological capacity to al-

low them to actively participate in housing policy formulation. The course deals with, inter alia: comparative analyses of housing policies in first, second and third world countries; the evolution of housing policy in South Africa; Housing finance; Housing delivery systems; Land Policy; Housing Policy in relation to broader urban planning and development objectives; Housing and the macro-economy and community participation. The housing delivery system in South Africa is examined in detail and students are required to develop skills in formulating policies on a variety of issues.

Layout and Sub-Division

The course involves both lectures and projects. Students will be exposed to the concepts and principles of layout and sub-division in such a manner that they build up a vocabulary of the dominant ideas both in use and being researched. The course entails an exposure to the mechanics of sub-division, urban design, the interaction with infrastructure provision, the interdependence with development delivery systems, and regulation/ guidance systems.

Project Management

The purpose of this course is to create an awareness of project management techniques and the appropriateness of their application to development projects. The course focuses primary attention on projects which are of the site-and-service or in-site upgrading type.

Special Planning Studies A & B

These are courses allocated in the University Calendar to enable the Department to offer other courses as may be appropriate from year to year. Courses currently under consideration are those on Planning and Property Development, The Use of Computers in Planning, and Urban Design.

Research Methodology

This study block involves two components. Firstly, students will be advised on the parameters within which a topic should be selected and given assistance in the selection of the topic. A fully detailed proposal for the Dissertation constitutes the main element in the assessment of this course.

Secondly, the course includes detailed studies on research methodology, including the selection of appropriate research methods and their implementation.

Dissertation

The purpose of the dissertation is to allow students to show that they (a) have a firm grasp of the basic principles of a particular part of the general field of housing; (b) understand how these principles are related to those of other parts of the field; (c) are able to select and analyse a specific theme from within the part chosen; and (d) are able to present and develop an argument in accordance with the accepted principles of academic discipline and scholarship. The dissertation must contain a significant element of research and be presented in an acceptable academic format.

Ambrose Adebayo

BACKGROUND:
Aerial photograph of the Durban Campus of the University of Natal. The

Faculty of Architecture is accommodated in Denis Shepstone Building, middle left.

Faculty of Architecture & Allied Disciplines

School of Development Studies

A new South Africa inherits from the apartheid era an array of inequalities and imbalances which need to be redressed in a variety of ways by the state, the private sector and the non-governmental organisations.

Many of these problems of imbalance and inequality have roots in issues of inadequate economic growth, maldistribution of resources, and institutional failure. Correcting them requires the formulation of appropriate social and economic policies to address the provision of development. These are the problems and solutions that are considered by academics and researchers in the interdisciplinary field of development studies. This is an area of academic and practical endeavour which has flourished internationally since the 1960's.

Unfortunately, little systematic and institutional attention in South African universities was allocated to studying development problems, and to developing alternative policies. Policies to ensure economic growth, reconstruction and redistribution have become a major focus of attention in national debates. Despite this, development studies have not been given priority in any South African university. They occur in departments such as economics, town and regional planning, geography, sociology, and politics.

A key problem in shifting towards a development studies focus is escaping the tyranny of academic disciplines. International experience shows that studying development problems, and devising appropriate policies to overcome them, requires marshalling knowledge across disciplines and creating an interdisciplinary approach and ethos.

The University of Natal is currently engaged in a process of re-orienting and restructuring itself to the development needs of Africa. An advantage for the University of Natal is that it is located in a province which is a microcosm of the reconstruction and development problems facing South Africa and hence in an ideal position for researching national development policy.

In order to achieve these aims the University set up a School of Development Studies in 1994. It is as an institution operating across current Departments and Faculties. The School offers interdisciplinary courses at the undergraduate and postgraduate level, as well as short courses aimed at practitioners in the field. The programme is committed to examining the realities of the Southern African political economy as well as to solving its problems. The ultimate aim of the School is to produce students who are able to debate, interrogate and evaluate alternative development policies rather than simply be knowledgeable about alternative development theories. It is intended that the School will play a major role in training academics and practitioners in development studies from South Africa and other developing countries.

The School offers a postgraduate program leading to Masters and Doctoral degrees, starting in 1995. The coursework Masters program, over a two year period, consists of compulsory general courses as well as options which allow students to specialise in particular streams. Core courses provide students with a solid grounding in the theories and practice of development and encourage an ability to examine key problems and solutions of development from a comparative perspective. The students may specialise in one of the following streams:

- Economic Development
- Urban Development
- Gender and Development
- Development and Social Policy
- Regional Economic Development
- Rural Development

Admission to the coursework Masters degree is on the basis of the first degree. The first year will be the equivalent of an Honours degree. Applicants with a suitable Honours degree may be admitted to the second year of study at the discretion of the Director.

The School also offers an undergraduate major in Development Studies to students in their second year, starting in 1996.

Graduates of the Development Studies programme can expect to find employment in the following sectors: government departments, NGO's, development agencies and banks, parastatals, private development consultancies and business.

The programme will be presented by staff drawn from existing Departments in the University.

Mike Morris and Nick Amin

Faculty of Architecture & Allied Disciplines

Resources

Students have access to the main University (E G Malherbe) Library; the Barrie Biermann Architectural Library; Faculty and University computing equipment and services, photographic darkrooms and services; and the Architectural wood and metal workshops.

BARRIE BIERMANN ARCHITECTURAL LIBRARY

The Faculty branch library named in honour of the late Barrie Biermann in 1993 was established in 1969. Headed for 22 years by Mrs Hazel Bond, the new incumbent, Mrs Anitha Shah, is assisted by 3 full-time staff members and a technical reference librarian, Mrs Michelle Jacobs. Strategically located, it can rightfully be termed the focal point of the Faculty.

The library subscribes to some 137 journals and, with a book-holding of some 20 000, is probably the best equipped architectural library in Africa. Prize collections include the EA Collection of early architecture books; the much appreciated Miscellaneous Index; the Trade Literature and Quantarc computer reference system; the Old Drawings Collection; original drawings by pioneer or important Natal architectural practices; measured drawings by students; and the slide collection (below).



FACULTY EDUCATIONAL DEVELOPMENT PROGRAMME

In 1992, a Faculty Education Development Officer (FEDO) was appointed to assist with staff and curriculum development.

The FEDO, in consultation with the Faculty Education Development Committee (FEDC), developed the following brief: to investigate needs relating to the three inter-related areas of staff, student, and curriculum development within each department in the Faculty; and to decide with departments how these needs might be addressed through all their pro-grammes.

The FEDC has the following role in the Faculty:

- to formulate policy on educational development for consideration by the Faculty Board;
- to prioritise educational development activities in the Faculty (including research); and
- to regularly review progress of educational development in each of the various departments of the Faculty before the end of each year in preparation for the following year.

The Faculty Educational Development Programme (FEDP) was established as part of a University-wide programme committed to addressing the learning and language needs of all students from within the disciplines in which they are studying. The FEDP provides opportunity for greater interaction between staff and students around teaching and learning in order to ensure a quality education for all students registered in the Faculty.

Megan Seneque, Faculty Education Development Officer



Faculty of Architecture & Allied Disciplines

"Outreach"

There are two Faculty "outreach" programmes serving several purposes. The Built Environment Support Group (BESG) and the University Alternative Housing Technology Unit (UNAHTU), play recognised roles as non governmental organisations operating in the fields of housing and the built environment.

BUILT ENVIRONMENT SUPPORT GROUP

The Built Environment Support Group was set up in 1983 by staff of the Faculty of Architecture and Allied Disciplines. It operated as a voluntary association and assisted grassroots organisations who were unable to obtain or afford architectural, planning and other related services on a normal fee-paying basis. Also supported were initiatives which contributed to the elimination of apartheid and the improvement of the living conditions of the poor.

During the late 1980s, BESG began to develop its own identity, and through the appointment of full-time staff, increased its capacity to support grassroots initiatives. We were able to improve the depth and range of services offered and adopt a more proactive approach to our work.

BESG's current activities have been made possible by the political changes since February 1990. We now have the capacity to undertake large-scale housing projects, and have developed considerable expertise in the design and implementation of community-based initiatives and policy advocacy.

Our overall goal continues to be "to develop, demonstrate and gain widespread acceptance of, and support for, approaches that empower the urban poor whilst simultaneously addressing their housing needs". The three key strategies which inform our activities are:

- to generate reproducible prototypes for intervention in low-income habitats; this is done in partnership with low-income communities, organisations and groups and involves the formulation, detailed design and implementation of innovative projects which are redistributive, make efficient use of resources, and build communities;
- the creation of an enabling environment; through carefully selected alliances and interventions in the institutional, policy-making and fiscal frameworks underpinning development we attempt to facilitate an environment within which community-based approaches to the delivery of housing can prosper – part of this

approach involves exposing students to community-oriented applications of their professional skills;

- building BESG to become a role model that other development organisations will want to emulate.

BESG has a staff of fifteen in its Durban office and five in the satellite office in Pietermaritzburg. Included are architects, construction managers, town planners and people skilled in the developing of the institutional structures and organisational capacities of low-income communities. At times, our staff is supplemented by the academic staff and students of the University.

Norah Walker, Co-ordinator

UNAHTU

The University of Natal Appropriate Housing Technology Unit was established within the Faculty of Architecture and Allied Disciplines in 1986. The objectives are to promote and conduct research into appropriate or alternative technologies for low-income communities; to publicise findings and communicate applications to the communities concerned; and to integrate research findings into academic teaching syllabi.

The University allocated a site for experimental building on the Western Campus, where amongst others, a Sandsleeve house, a Blair toilet, and a stilt house particular to the undulating topography have been built and monitored (below). Inspired by this example, students have based field work and dissertations for the various Departments of the Faculty and Civil Engineering on aspects of alternative technology. Subjects covered include solar heating; rammed earth construction; low-cost brickmaking; and the use of waste material in construction. A benchmark was set by the response of UNAHTU when after the Demoina floods of 1987 a brochure in caricature communication was disseminated to encourage a more flood-resistant approach to rebuilding.

Rodney Harber, Chairman



Faculty of Architecture & Allied Disciplines

Admissions, Research & Staff

ADMISSIONS

UNDERGRADUATE DEGREES

Students wishing to register for undergraduate study at the University of Natal must be in possession of a Matriculation Exemption or its equivalent. In the first instance application should be made to the Admissions Office, University of Natal, Durban, telephone (031) 260-2216.

Bachelor of Science in Architecture (4 years) [Bachelor of Architecture]

The number of students admitted to first time first year studies in Architecture is limited. Students are thus selected, and applications should reach the University by 30 October each year. In addition to Matriculation results, the Admissions Committee also considers whether applicants have the potential to succeed in the study of Architecture. Factors considered include motivation, creative skill, past experience and post-school qualifications. A portfolio of creative work provides an additional guide to the Admissions Committee which may also request an interview with prospective students.

Bachelor of Architecture (1 Year) [Postgraduate Diploma in Architecture]

A Bachelor of Science in Architecture degree or its equivalent is a prerequisite for this postgraduate qualification. Admission is further restricted to those who have achieved sufficiently high results in their undergraduate degree. The level of performance required is at the discretion of the Head of Department and senior staff, but a student achieving second-class passes and above in the major subjects of the undergraduate degree will be admitted automatically.

Bachelor of Science in Construction Management (4 years) and Bachelor of Science in Quantity Surveying (4 years)

Applicants with good matriculation results are preferred, with particular emphasis on a capability in mathematics.

HIGHER AND RESEARCH DEGREES

The Faculty offers a wide range of research-based postgraduate degrees including M Arch and Ph D degrees. Candidates should contact the Faculty Officer, telephone (031) 260-3271.

The recent development of a series of coursework Masters degrees – the interdisciplinary Housing programme, the interdisciplinary Development Studies programme, and Building Economics – has arisen in response to immediate needs regionally and nationally. These programmes, together with the Masters programme in Town and Regional Planning, are inter-related – each comprising a prerequisite set of courses and permitting a number of electives from all four programmes. It is intended that the modules that comprise these programmes can be taken individually for mid-career upgrading purposes.

Master of Science in Building Economics (2 years)

The usual qualification for entry to this post-graduate course is a four-year professional degree or an Honours degree in a discipline associated with the built environment. Applicants with appropriate professional experience will be preferred. In special cases, applicants without these qualifications may be admitted.

Master of Town & Regional Planning (2 years)

Applicants will usually be graduates who have obtained a sufficiently high level of academic performance in relevant disciplines. In special cases applicants may be admitted without these qualifications.

Interdisciplinary Housing Programme (2 years)

Applicants should have graduated in a discipline or have experience in a field relevant to housing.

Development Studies (1 or 2 years)

To register for the Masters degree in Development Studies, candidates should be graduates in a relevant discipline or have suitable experience. Candidates should in the first instance contact the Faculty in which they obtained their primary qualification.

STAFF OF THE FACULTY OF ARCHITECTURE & ALLIED DISCIPLINES

Dean: M Kahn

Assistant Dean: D T Wang

Faculty Education Development Officer: M Senekue

ARCHITECTURE

Professors: D Radford · D P Smit (currently on secondment)

Associate Professors: R R Harber · W H Peters · P R Stewart (Acting Head)

Senior Lecturers: A A Adebayo · D J Claude · B Jekot · D G van Zyl · D T Wang

Lecturers: R J Ferguson · M V Pennington · D Ramsden · D van Heerden

Honorary Professional Consultant: W R O'Beirne

Emeritus Professors: L T Croft · D N Dyke-Wells · B T Kearney

PROPERTY DEVELOPMENT AND CONSTRUCTION ECONOMICS

Professors: R G Taylor (Head) · R Pearl

Senior Lecturers: L G Botha · H P Dobson · G H M Norval · M J White · A J Merrifield

Honorary Professional Consultants: D E Daugherty · A J M Stewart

TOWN & REGIONAL PLANNING

Professors: M Kahn · D P Smit (currently on secondment)

Associate Professor: P S Robinson (Head)

Senior Lecturers: N N Gwagwa · A E Todes

BUILT ENVIRONMENT SUPPORT GROUP

Co-ordinator: N M Walker

TECHNICAL AND SUPPORT STAFF

Faculty Officer: E Perel

Secretaries: R Haden and A Lloyd (Architecture) · P Moyes (Property Development & Construction Economics) · S Horsman (Town & Regional Planning)

Messenger: J Kunene

Technical Librarian: M Jacobs

Photography and Printing Staff: K Devadas · V Hlobane · A Nxumalo

Wood and Metal Workshops Staff: A Mbele · J Mguni · M Mhlomo · D Pretorius · D Russell

RESEARCH

The research undertaken in the Faculty falls into four categories. Firstly, there is original academic research, leading to the publication of research articles in refereed journals and academic books. This kind of research may be pursued with and through the activities of post-graduate students. Secondly, there is what may be called policy research, in which academics investigate policy issues on behalf of outside organisations. The output from this kind of research consists of research reports and policy documents. Thirdly, there are the investigations which must be carried out in the process of innovative professional practice. The output of this kind of activity may be reports to professional bodies or clients, or building designs, urban and regional plans and other creative endeavours. Finally there is that research which is associated with the teaching process. This may involve curriculum development, research into teaching and learning methods and technologies and the psychology of learning, as well as general reading and the evolution of more profound and scholarly lectures. The output of this research may be in the form of research papers and development of formal curricula, but its effect on the quality of the lectures offered in the Faculty is of considerable significance.

Academic Research

As befits the multi-disciplinary domain of the Faculty, the staff maintain interests in a wide range of academic fields including Social Theory, Urban and Regional Planning and Practice, the History, Theory and Technology of Architecture and related arts, Housing Theory and Policy and related issues, Management Studies, Development Studies, Energy Efficiency and Environmental Responsibility, Philosophy of Science and the Foundations of Physics. Prospective graduate students consult with staff to establish whether research in their field of interest can be supervised and supported within the Faculty.

Policy Research

Staff in the Faculty have acted as policy consultants to national and international bodies in the fields of Planning and Housing, both through their individual efforts and under the auspices of BESG, and in working for such bodies as the National Housing Forum and the various professional institutes. The Mission Statement of the University of Natal calls for involvement of its academics in the affairs of the local community and this is one of the ways in which it is achieved.

Professional Work

Most of the members of the Faculty staff are qualified professionals in fields relating to the built environment and many of them practice their professions as well as acting as advisors (particularly with respect to education), developers of professional curricula and editors of professional journals.

Educational Research

In response to the changing circumstances nationally, the University has instituted a policy of Educational Development, which involves both staff development, in which staff are encouraged to adapt their approaches both to the context of the University and the changing demography of its students, and curriculum development in which a response to similar influences is developed for curricula. This has given rise to particular emphasis being placed on educational research amongst the staff. However, it is a consequence of both the wide-ranging domain of our disciplines and the relatively close contact between staff and students in the studio system that considerable emphasis has long been placed on educational development in this Faculty.

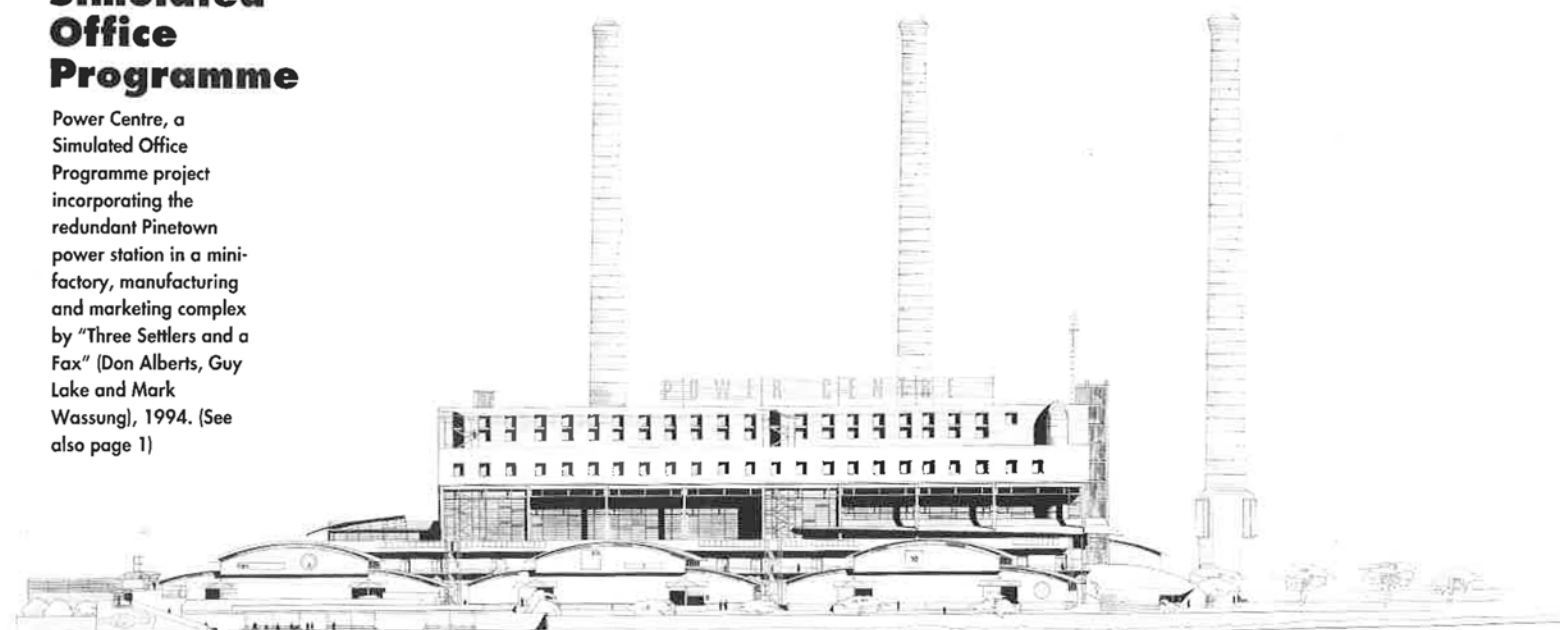
Derek Wang

Faculty of Architecture & Allied Disciplines

B Arch Degree [Postgraduate Diploma in Architecture]

Simulated Office Programme

Power Centre, a Simulated Office Programme project incorporating the redundant Pinetown power station in a mini-factory, manufacturing and marketing complex by "Three Settlers and a Fox" (Don Alberts, Guy Lake and Mark Wassung), 1994. (See also page 1)



Design Theses

An Urban Regeneration project in the Grey Street Mosque precinct, Angela Baker, 1993.
"Art city", an Arts Centre for Durban, Sally Lewis, 1993.

