

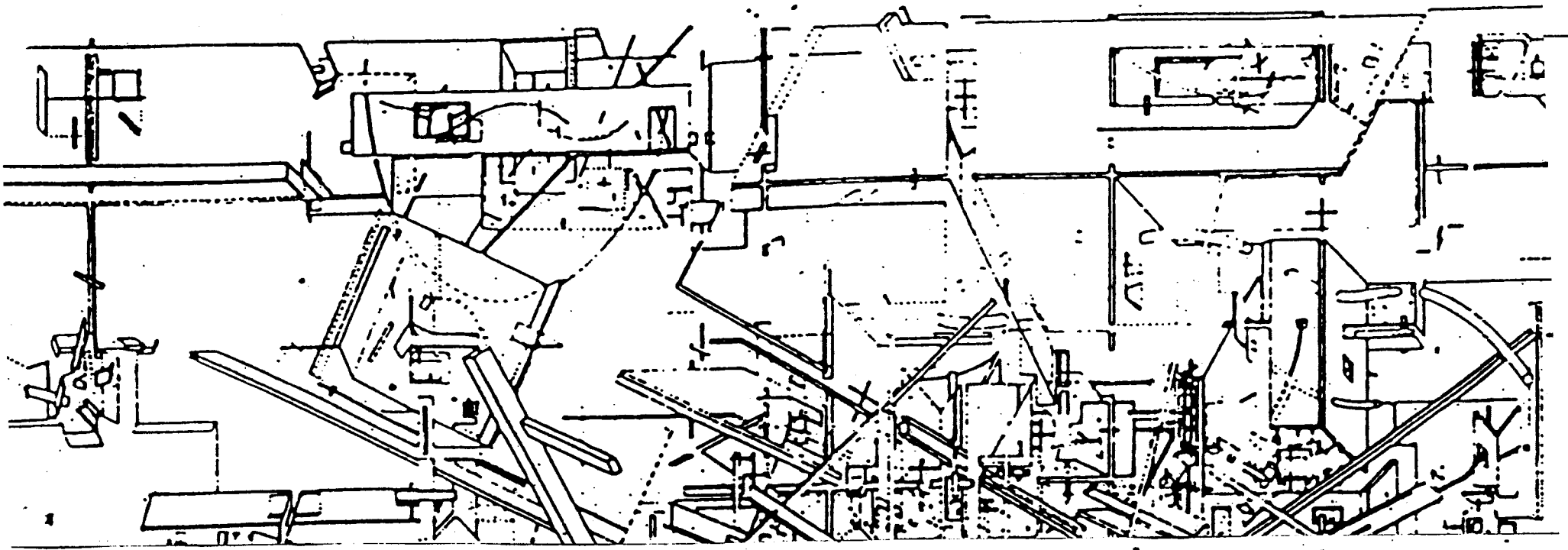
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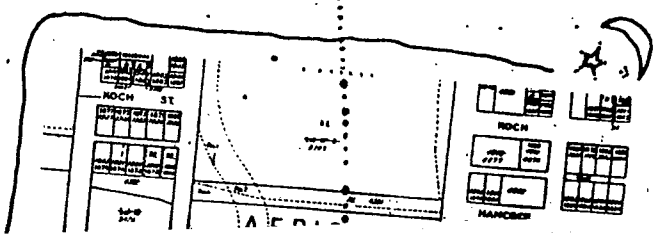
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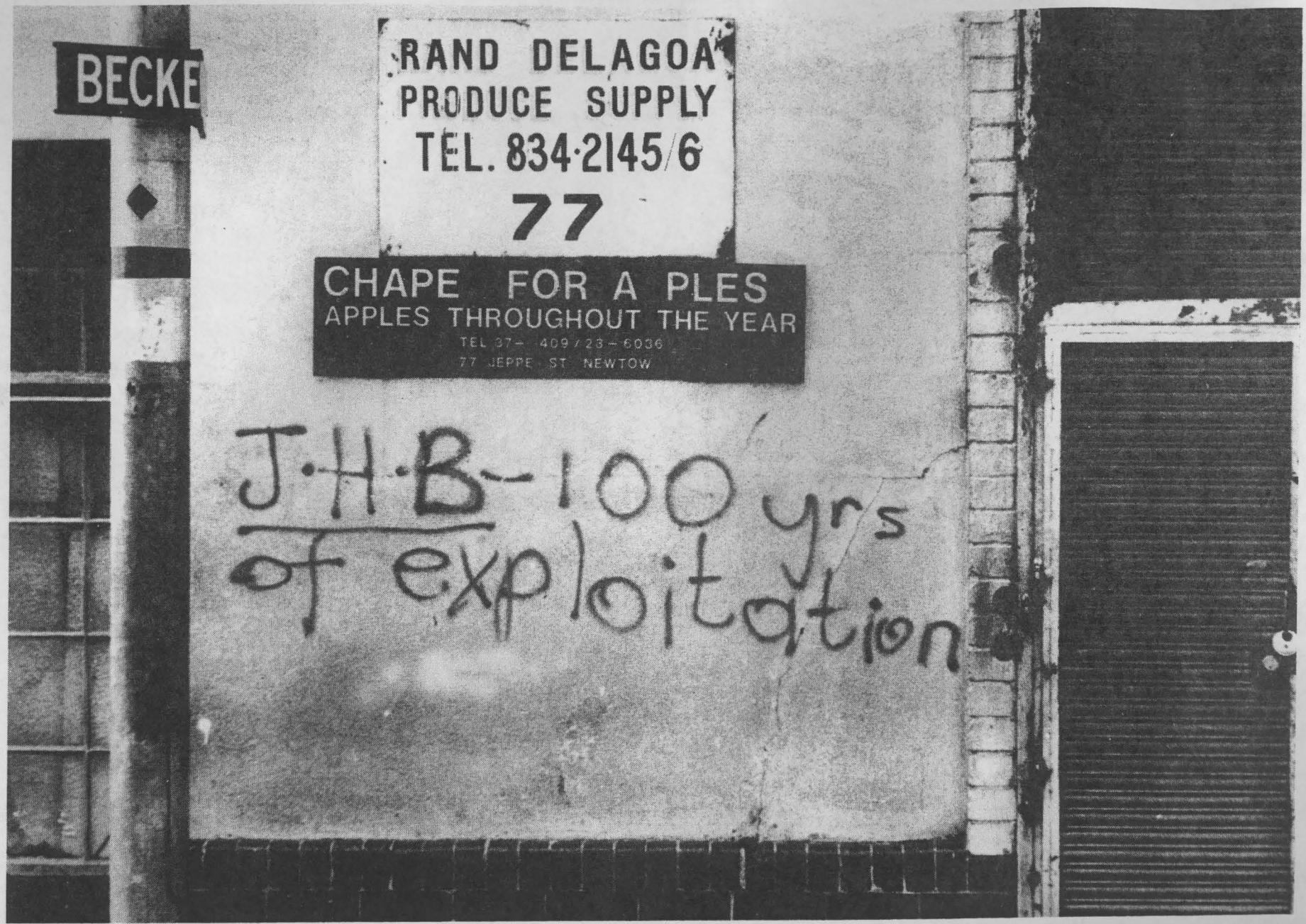


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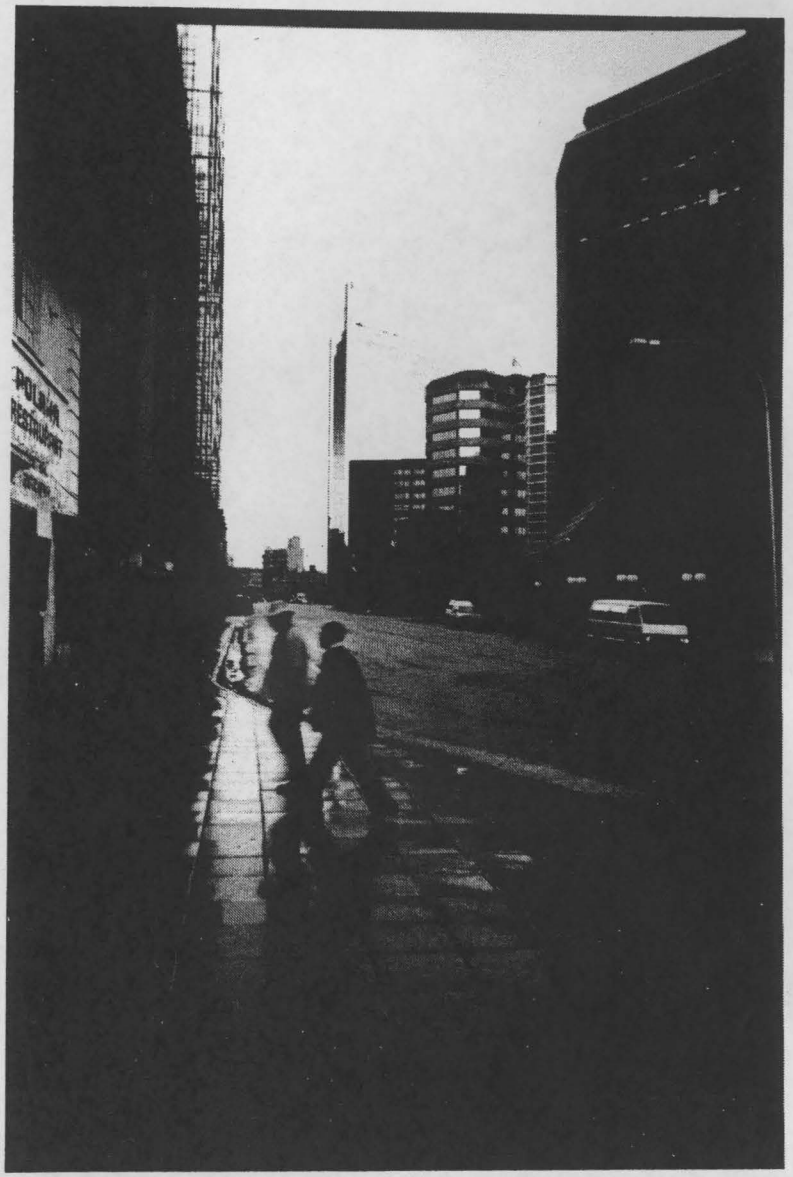

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Metropolis

architectural students congress

University of the Witwatersrand

april 1986



This magazine focussing on the Architectural Students Congress held at the University of the Witwatersrand, during April 1986, is a 'Re-Mould' special edition. It was edited by Clifford Elk, with the valuable assistance of Erica Elk, Michael Hart, Jerry Jameson, Nicky Ridgway and Liz Walker. The congress, let alone this magazine, would never have happened without the dedication and energy of the 'Congress Committee', and of course without the financial help of the ISAA and our sponsors. We are endebted to you all. Thanks very much.

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(South African Students Press Union)

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** Paper previously published in Architect S.A.*


ARCHITECTURE STUDENT CONGRESS

Metropolis, Image or Reality

Clifford Elk

To be critical and analytical of the present conjuncture, in which we as architectural students find ourselves, was the role identified by the Congress Committee for the congress to play. That the congress fell well short of these intentions is very real. Real in as much that we are incapable of playing that role, moulded as we are by a very specific education system; 12 years of Christian National Education and currently an architectural education with projected aims, that are questionable at the very least.

Couched as it was with architectural concept and terminology, the congress tried to play an analogous role, of raising the consciousness of its participants, but one must be realistic when assessing the intention as opposed to what was achieved.

We're in the midst of a cultural revolution, in which a new morality is evident, one which we generally find hard to understand, isolating and ultimately very threatening. It is positive that a groundswell of disillusionment and dissatisfaction country wide, has induced architectural students to look more seriously at aspects of their education. This has given rise to the National Architectural Students Union (NASU), which organisationally is shakey, and content wise directionless, but yet has provided us with the oppurtunity and forum to directly challenge our education, and annually for a period of a week put into practise some form of alternative.

We are of Africa, and have been misguided and mislead into thinking that our cultural and architectural aspirations should coincide with other Western Nations of the world, best demonstrated by not only the content of our education but also by the state of the architectural profession.

This is precisely the stand that the congress took, being highly critical of the imagery and ideas imported per se, while attempting to redress the question of relevancy, symbolism and meaning of architecture in South Africa today, the role that the architect plays and how our education currently fashions our perception.

Metropolis as a theme provided the space to examine things which weren't just architectonic, the making of connections between the state of our nation now, compared to the time of the visionaries,... the World Wars, the depressions, the rise and fall of ideological powers. With the current trends apparent in this country, the dissatisfaction of our people is highly visible, but as of yet, we haven't managed to identify the role for architects.

It is this role, that the congress, (which attracted up to 400 delegates at times) and I believe its participants in general, were interested to identify. A journey through an imaginary metropolis, with many of Johannesburg's features was embarked upon, with the intention of focussing on potential areas that we as students (of Architecture) might direct our attention towards.

The Glass City Day

The underlying theme of the day was cultural imperialism and the pursuit of an international style. Our glass city, although possibly founded on the dream of Bruno Taut, exists within a number of contradicting and controversial circumstance;

* the overlaying of the old and the new, coupled with the destruction of both a historical and cultural continuum.

* the permeable and impermeable, implicit with the use of modern reflective glass and its environmental impact.

* the solid and the penetrable, dealing not only with access to these buildings and what they contribute to life on the street, but the abstract quality inherent in the use of the material.

* the relevant and irrelevant, dealing with an immediate response to environmental conditions as opposed to image.

* the contextural and non-contextural, incorporating the complex issue of where average South Africans are at culturally and their individual responses to a 'glass building'.

Whilst this theme was explored in a number of ways, we tried firstly to

come to terms with a contemporary understanding of a post modern society, based as it was on the writings, visions and images of Modern Architects, and the architectural chronology on which our education is based.

Trying to counter the 'civilised West's' influence on our architectural perceptions we tried to grapple with seemingly pertinent current debates;

* The architect as artist, an individualised approach paying homage to the creative genius versus the socially responsible and 'accountable' individual.

* The search for a South African architecture with implications of style and image or Regionalism, the response to immediate cultural and environmental parameters.

* Hi-tech or relevant technologies recognising the alienation of the individual and community through the methods of production and materials used in building.

* Planned or unplanned architecture reiterating the value of participation in the building process, giving rise to cultural identity and expression as opposed to the imposition of a finished product.

At this juncture the congress introduced the notion of a collective building project to take place on the Library Lawns, which would not only explore the realm of the unplanned but would try to induce the participation of the University community. The congress was planned to take place within term time at Wits University to highlight not only how removed we as architects have become from our own immediate constituency, the university, but also to take some positive steps towards rectifying it. The congress was planned as open, to encourage the participation of non-architectural students and went out of its way to have some effect on campus life for that period of a week.

The structure was conceived of in an incremental type of way, providing only a skeleton (scaffold) at the begining of the week, which would be added to with the use of materials and banners relating to the daily experience of delegates as initiated by the congress programme.

The keynote address entitled 'Ronald, Nancy and the Prince - the politics of Post Modern Culture' was an attempt to deal extensively with the question of where we are at now, culturally and architecturally and which might be the way forward. It critiqued the notion of an 'historical continuum', the theories and principles pursued in the past and how they currently affect our design attitude and postulated an 'anti-historical' stance of starting afresh, with a new modus operandi. What it pointed out, was that although a new and effective design process is not broadly evident, current styles based on the continuum only exist for a short time. What that could possibly mean, is that we (architects) haven't yet begun to identify the areas of importance that should inform our design process, or that no 'architectural solution' can be found to cope with the scope of modern day demands.

A bus trip through Johannesburg at night followed. Its intention was to highlight some of the dilemmas dealt with during the Glass City Day and some which were still to appear in the programme. It took a route through the now devastated Parktown, and circled the city at speed on the highway, attempting to induce a new perception of the built environment. It wound its way through the streets of an alienated Johannesburg, passing many of the Glass buildings (the major topic of the day) enroute to 11 Diagonal Street.

Barnib House (as its called) provided vividly many of the contradictions we'd discussed, although perhaps unfairly, highlighted by the deserted streets of our city at night. Like an island, it sits isolated on its podium within its context of delapidated Newtown and Diagonal Street, the emporium of small traders. Its own isolation was paralleled by our own alienation as we moved through its space-age foyer of soaring volumes and highly finished materials, moved upwards in talking capsules with American accents and landed on the barren and deserted 10th floor.

The 10th floor was then incomplete, it hadn't yet been subdivided and furnished to accomodate a tennant, but provided the delegates with the experience the congress intended. The building was no different to its humble forebearers, a vast concrete space with columns in apparent

confusion, brick walls and strip windows with limited views. This glass building was not of the genre that Taut dreamed of, being wholly transparent and uplifting but of image and facade.

The Industrial City Day

The predominant theme of the day was alienation and the various forms that it manifests itself in, through material conditions, physical experience or even perceptions of the city. Whilst the day by no means attempted to solve the issue, it moved in some way to alter perception, as in a second reading of the city.

The intention of 'Schitzophrenic Johanesburg' was to develop an analogous history, rather than the one officially promulgated to stimulate rather than stifle the inventive urge. The recognition of the 'absurd landscape', which had developed not only because of the discovery of gold but through an iniquitous process of 'social engineering', as the base on which our ideas should be built.

The day went further in trying to break down preconceptions of what a city is and how it develops, with specific reference to Johannesburg as a tent and shanty town, and the development and use of corrugated iron and prefabricated elements. Whilst an architectural congresss, we were careful not to remove the human element and become totally involved in architectonic responses and tried to map out the 'human experience' with respect to an eye-level view of Johannesburg. The development of yard and squatter settlements, the subsequent slum clearances and forced removals, the introduction of the 'Group Areas Act', the thwarting of black free enterprise initiatives and finally the total imbalance in the distribution of wealth. Alienation as a theme was mapped out in the conditions on the factory floor, exploring the contradiction of user versus financer of the project, and where possible architectural intervention might occur. Although alienation as a concept is often seen as restricted to material conditions and involvement in the production process, it was taken further in 'Images of Alienation' and its occurance in the creative field. We tried to draw parallels within the art world by merging the separation of manual and intellectual labour, and examining the process of subterfuge and manipulation of artworks once completed. We recognised that once the completed artwork had been sold or changed hands, it could be used in whatever context or for whatever purpose the new owner thought necessary, no matter the intent of the artist nor content inherent in the work. In this manner, 'political art' which is sold loses not only its meaning but purpose for existence.

We followed with a discussion on the movie Metropolis, which was not only shown at the start of the congress, but provided the congress with its name. Whilst the movie was initially shown because of the futurist ideas of Fritz Lange and architectonic imagery, it provided an insight into labour relations and workers experience of their city, which fitted not only into the general theme of the congress, but more specifically into the Industrial City Day. Although made in 1927, it provided some realistic insights into our modern day society; the fetish of the capitalists to develop very modern and highly sophisticated cities, the notion of recreation time and the decadence that resulted, the stereotypical image of the workers and their continued oppression, living in a city of their own under the capitalist gem.

The keynote address delved into the workings of the Industrial Mind, trying firstly to draw out a cognitive map of the process and experiences of an industrialising world, the effect and ramifications it has on societies and the current day workings of architects within this complicated matrix. It dealt more extensively with Pedro Guedes' own experiences and how he began using and exploiting 'as found' materials and buildings, and the handling of renovation, conservation and the contextual responses of new buildings.

The Dormitory City Day

The intention of this day, was not to solve the problems within nor existence of dormitary cities (being well beyond the scope of this congress), but to realistically examine the South African reality, structurally caused by the Group Areas Act.

We approached this from two perspectives, an experiential one with

the highlighting of what happened in the Western Coloured Township, and from a theoretical point of view, tracing the birth of the 'State Housing Policy', its implementation and involvement of architects.

What happened in Western Township best demonstrates the contradictions of an imposed housing solution which ignores the communities demands and needs and excludes participation. What began as an issue of housing, resulted in unrest and dissent, the occupation of the township by security forces, violence, casualties, detentions, and the continued pursuit of an housing programme unacceptable to the community.

The birth of the housing policy demonstrates how good intentions were manipulated to ideological gains and technocratic solutions resulting in the inhumane and alienating environments of the townships as we know them. How the inalienable human right of shelter was politicised, subverted and converted into a means of control, resulting today with the development of spontaneous squatter settlements situated closer to the source of employment.

The development of the informal squatter settlements has proven not only to be a direct affront on State authority, challenging all of the apartheid structures and principles, but has also created a huge vacuum which architects with their present modus operandi, are unable to fill.

The intention of the keynote address, 'Who is the South African Client?' was to challenge those aspects fundamental to our architectural education, which has developed a rigid notion of what the parameters of architecture is and where our client base lies. We highlighted the work being done in various sectors; high cost domestic work, South African ethnic, commercial and then community based architecture in an attempt to broaden delegates perceptions of the field of architecture, and then by extension, question the narrow focus of our education.

Finally, delegates were encouraged to build their own shelter for the night, on and around the structure, using no more than the minimal materials provided (cardboard and tape). This was by no means an attempt to romanticise poverty nor the difficulties that squatters face, but to try and demonstrate how far removed architects have become from the basic needs of shelter, and its mode of construction.

The Dead City Day

The Dead City as a concept, has become a reality based on our personal experience of cities in South Africa and Johannesburg specifically, resulting from the absence of urban quarters of any type, except those situated on their peripheries. We are experiencing the aftermath of not only decentralisation and the white South African dream of a house in the suburbs, but also the effects of the Group Areas Act and creation of dormitary cities for the workers far from their places of work.

Although this notion of death was more specifically intended to be aimed at the absence of people living within our cities, we felt it important to explore the realm of death that is currently the vogue in architectural theory and practise. In this respect, we felt it necessary to focus on the way societies perpetuate and recalcitrate their cultures and histories through their own self-glorification, pursuit of National Identity and the building of monuments to themselves.

To this end, we tried to demystify the much copied aesthetic of Aldo Rossi, and to go some way to explaining the premis on which he bases his work. The current condition of 'Man', developed through our experiences of the World Wars and the realisation that one may no longer be guaranteed an honourable and individual death but rather be subject to a mass undignified slaughter has subjected new meaning on our lives. It is this consciousness that has given rise to Rossi's pre-occupation with death, demonstrated by his houses for the dead (Moderna Cemetry), prototypically similar to houses for the living, but with the absence of floors, internal walls and windows.

Death can also be equated to the destruction of the character of a suburb, such as Parktown, or the individual implosion of buildings in our cities, disrupting both cultural and historical continuum. Parktown, although controversial in terms of land and space distribution and the occupation of the ridge by relatively few Randlords, suffered an abrupt

end and dislocation in its transformation into an office park. Its not that we should get in the way of 'development and modernisation', but rather participate more carefully in the processes of transforming land use, such that an established character might be retained and even reinforced rather than destroyed. It was the congresses intention to examine the process embarked upon and finally to come to understand that the subsequent disaterous environmental impact was a result of limited foresight and underplanning.

The same principle should be applied to Johannesburg, whose destiny seems to lie in the hands of economists and developers rather than planners and architects, best demonstrated by the number of implosion aimed at economically unviable schemes. The destruction of these buildings, although economically justifiable, which play an integral part in the formation of both the individual and collective memory, is slowly eating away at whatever cultural fabric we have. Whilst it was beyond this congress, we hope that soon the relevant authorities will begin to take the correct initiative to redress this problem, and free the city from the vice-like grip that developers have on it, before all the 'valuable' buildings disappear.

To reiterate the importance of revitalising our cities without destroying the existing fabric, the congress looked at some successful ventures in the United States. It is surely a system of give and take, since investors cannot be expected to carry the financial burden of our cultural perpetuity, but unless steps are taken, we will only experience our own history in Disneyland reconstructions.

Educating architects in the South African context could and should be many things, as demonstrated by the broad range of areas that the congress identified. Currently, the debate ranges from the development of night schools and technikons to the reverting back to an apprentice system. These speculated alternatives come about due to the serious unequal education and oppurtunities that black South Africans receive, and are seemingly an attempt to redress the number of black architectural graduates. This approach, although full of good intentions tends to treat the symptoms and not the root causes of the educational problem in South Africa, and can do no more than offer a short term reprieve.

The fact that the terrain of the Educational debate has moved out of the parameters of the univeristies is slightly problemmatic, in as much as the universities require immediate attention. For that reason, Pancho Guedes and Ivor Prinsloo the respective heads of WITS and UCT schools were invited to address the congress on their educational philosphies. It was the intention of the congress then to assess these approaches with respect to the broad South African Education Crisis, by locating them within their context. The fact that an architect is expected to be many things raises problems with the narrow confines of our education, and that no social concern nor understanding is generated points to the inadequacy of its content.

That these issues are being identified by students is positive and the existance of NASU and the annual congresses may be a way of addressing them. However, we are at the point at which students should be allowed to participate meaningfully in the content and direction of their own education, and not be placated to fill the vacuum of acceptable dissent making noises on the fringes.

The Living City Day

The final day began with a critique of the "Truth building" (For the Brief see Living City Day). We believed that designing for the Media, with its imposed restrictions and censorship, in a public space, in South Africa today would be an ideal means of examining architecture. In 1921, the Vesnin Brothers designed a new headquarter building for 'Pravda' newspaper in Leningrad, Russia. At that time what was seen as essential when designing, was the unconcealed expression of structure, movement, technology and material, which later became known as the 'Constructivist Aesthetic'. The Pravda Building embodied the holisitic integration of the material and cognitive world sought by the Constructivist method.

Although there are strong parallels with the social context of the Constructivist Works then, and the overriding concern of most South

Africans for our own social form now, this was not the overriding factor. We hoped, that by examining the constraints under which a newspaper is produced in South Africa today, the written truth versus the real truth, the hidden truth versus the exposed truth connections would be made and translated into architecture;

the meaning and purpose of style,

facadism and aesthetics,

experience and perception

and that the important role that architecture plays in our own historical, cultural and political continuum would be recongnised.

The Living City Day intended to show, that despite the formal conditions that exist and are the cause of our 'dead cities', positive 'living activities' still take place like blemishes in a finely woven fabric. Graffitti could be viewed, either as one of these disruptions by some and an important clue as to the condition of our society, or by others as something to be painted over and erased from sight. I believe that we as architects and similarly the politicians, cannot ignore the 'writing on the wall', as the single most important element that we deal with, is people, and Graffitti has become one of their only means of expression.

While recognising that Graffitti is something quite informal that springs up under cover of darkness, another means of expression and pursuit of an alternative, is music. The congress thus tried to focus on the notion that by being aware of the trends within our society, we could be far more 'in tune' with whats happening on the ground and whats going on in the minds of 'real' people.

The final session of the congress focussed on the future and what role students and professionals alike should and could be playing. The current dilemma was the issue of the formal acceptance of the Union of International Architects (UIA) Charter proposed in Warsaw during 1981. (See Appendix 1)

Whilst a serious amount of the general debate focussed on the Charter issue, a number of other issues arose and some form of consensus was agreed upon, in the passing of numerous motions. (See Living City Day) While no matter what motions we as a student body pass, NASU currently is in a state of 'dis-organisation' and seemingly unable to implement them. The very real danger exists, that we as students will ultimately be doing a lot of policy making and talking, without taking relevant action. Therefore, the strengthening of NASU's local branches should be high up on our agenda, and the manner with which we operate nationally should be seriously reviewed, with cogniscence taken of the constraints that we as full time students face. The positive aspect is that some students are committed to working on NASU and support its ideals, and that the annual congress will be happening for its third consecutive year, this time in Natal.

It remains to be said, that most of the papers in this journal were transcribed from tapes of the lectures, and edited to suit a written rather than oral and visual presentation. If the authors original intention and content are either not clear or appear changed through the process of transcription, we apologise.

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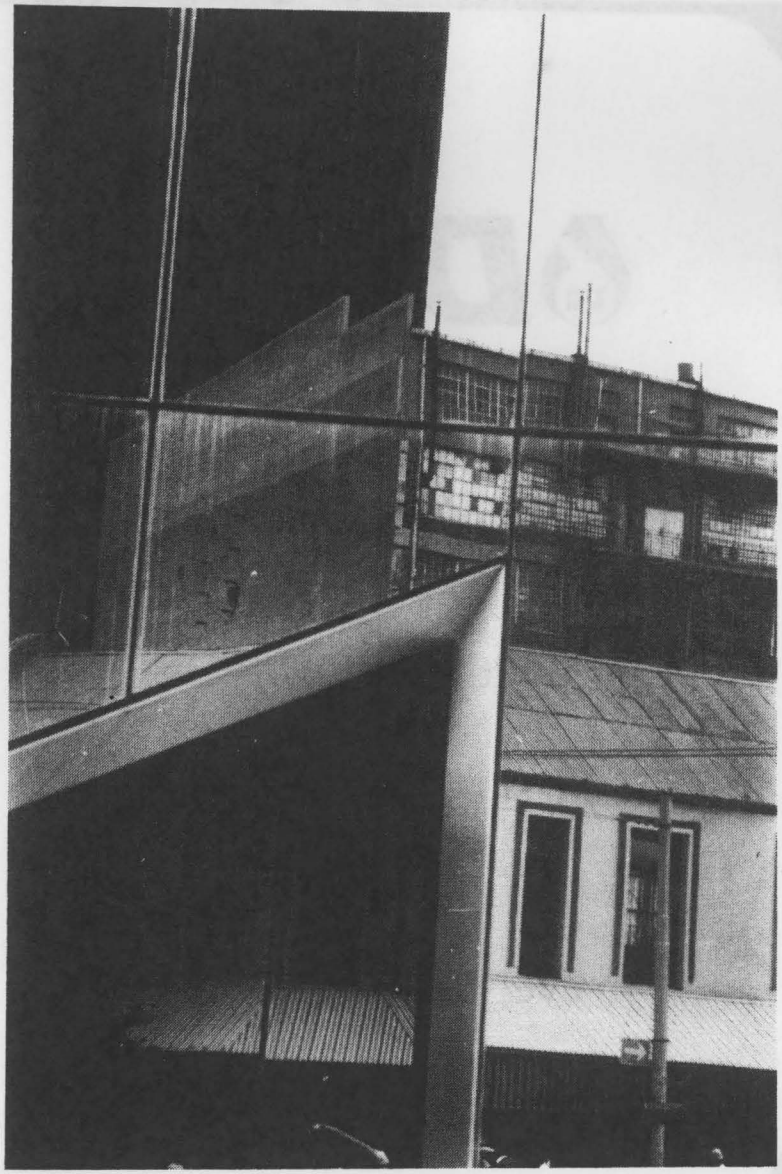
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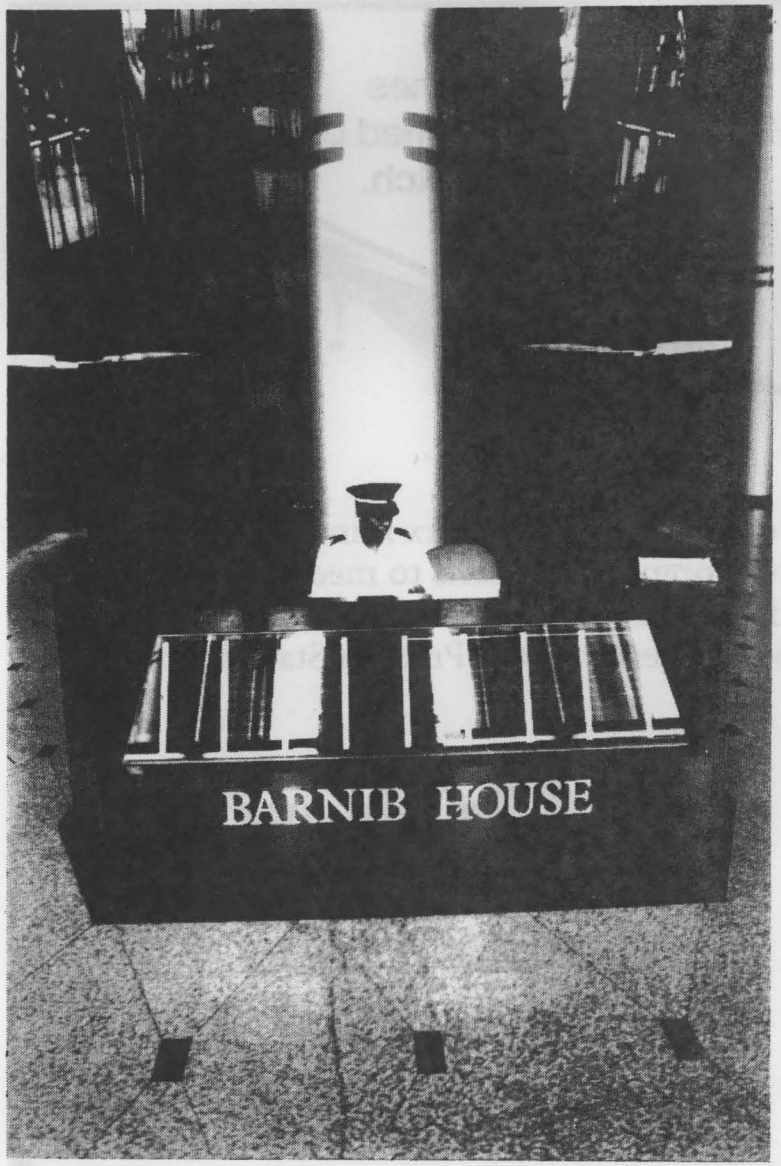
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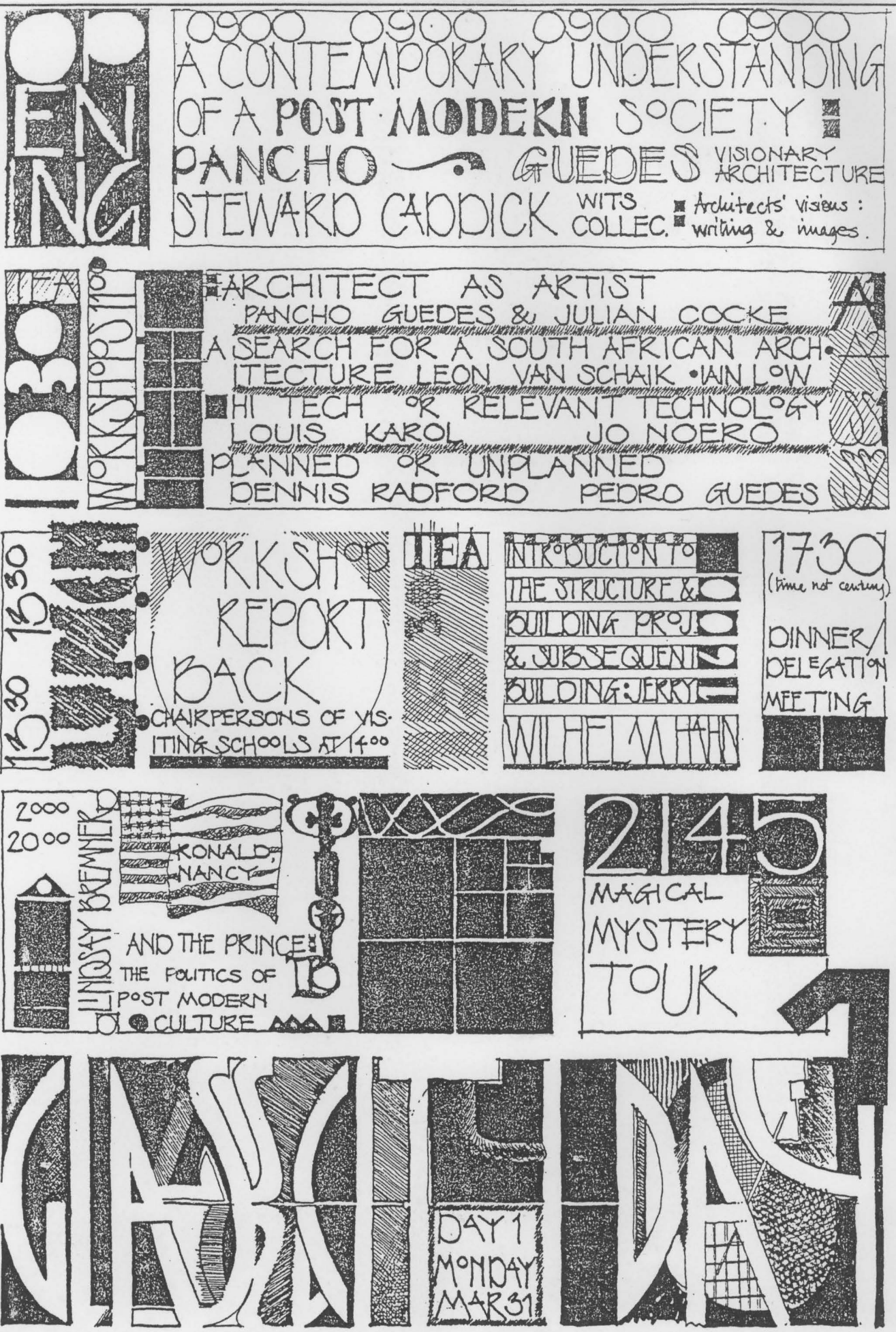
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WORKSHOP SITE
ARCHITECT AS ARTIST
PANCHO GUEDES & JULIAN COCKE
A SEARCH FOR A SOUTH AFRICAN ARCHITECTURE LEON VAN SCHAIK • IAIN LOW
HI TECH OR RELEVANT TECHNOLOGY
LOUIS KAROL JO NOERO
PLANNED OR UNPLANNED
DENNIS RADFORD PEDRO GUEDES
1530 1530
WORKSHOP REPORT BACK
CHAIRPERSONS OF VISITING SCHOOLS AT 1400
TEA
INTRODUCTION TO THE STRUCTURE & BUILDING PROJ & SUBSEQUENT BUILDING: JERRY WILHELM HAHN
1730 (time not century)
DINNER/ DELEGATION MEETING
2000 2000
LINDSAY BREMNER
RONALD NANCY
AND THE PRINCE
THE POLITICS OF POST MODERN CULTURE
2145
MAGICAL MYSTERY TOUR
DAY 1
MONDAY MAR 31

A Contemporary View of a Post- Modern Society

Stewart Caddick

"We are dealing here with an age of creation: We are only at the early beginning, but we are already faced with the possibilities of its development. Before such a future the great achievements of historical times step back of their own accord: the immediacy of the present loses its importance. What will happen has value only if it comes into being in the intoxication of vision." -

Eric Mendelsohn -1919

As we approach the end of the 20th Century it would seem appropriate to cast a retrospective eye over the dreams and the visions with which the Century began and which evolved during its course. The past 90 years have witnessed dramatic change in all fields of human endeavour - social, poltical and not least of all, - architectural. This change has been accompanied by and, to a great extent, affected by the new technology, as foreseen here by Mendelsohn.

"For the particular prerequisites of architecure, the reorganisation of society taking place in response to the spirit of the times means new tastes arising out of the changed purposes of buildings which in turn result from changes in travel, economy, and religion, coupled with new possibilities presented by the new building materials: glass, iron, and concrete. What today is a problem - will one day be a task; what today is the vision and faith of a single individual, will one day become a law for all. Therefore all trends seem necessary to achieving the goal, and hence to solving the problem of a new architecture;

the apostles of glass worlds,
the analysts of spatial elements,
the seekers for new forms of material and construction."

Five years prior to this statement, two Italians, Sant'Elia and Marinetti presented their vision of the 'New City' in the 'Manifesto of Futurist Architecture' of 1914.

"The tremendous antithesis between the modern and the ancient world is the outcome of all those things that exist now and did not exist then. Elements have entered into our life of whose very possibility the ancients did not even dream. Material possibilities and attitudes of mind have come into being that have had a thousand repurcussions, first and foremost of which is the creation of a new ideal of beauty, still obscure and embryonic, but whose fascination is already being felt even by the masses. We have lost the sense of the monumental, of the heavy, of the static, we have enriched our sensibility by a taste for the light, the practical, the ephemeral and the swift. Let us throw away monuments, sidewalks, arcades, steps: let us sink squares into the ground, raise the level of the city. So called renovators of the art have simply added new variations to an old game, undisturbed by the complete revolution and mechanisation of modern life, and our cities remain sunk in the squalor of the Centuries, instead of answering the needs of today. We must invent and rebuild the Futurist city: it must be like an immense, tumultuous, lively, noble work site, dynamic in all its parts; and the Futurist house must be like an enormous machine. The lifts must not hide like lonely worms in the stairwells; the stairs become useless, must be done away with and the lifts climb like serpents of iron and glass up the housefronts. Architecture is breaking free from tradition. It must perforce begin again from the beginning."

The Futurists thus eulogised the cult of the modernism with a poetic imagery drawn from the forms of industrialism and the great metropolis.

The importance of the context within which architectural theory or vision develops cannot be overstated. The socio-

political environment is the overriding factor which forms the basis of much 20th Century visionary work. El Lissitzky, a constructivist architect at the time of the Russian revolution had this to say:

"We shall present here a few sections of a life process which, having been first brought into existence by the Revolution, is a bare 5 years old. During this time the high demands made by the cultural revolution have taken root in the feelings and consciousness of our new generation of architects. It had become clear to our architect that through his work he is playing an active part in building the new world. To use an artist's work had no value per se, no purpose of its own, no beauty of its own; it receives all this solely from its relation to the community. In the creation of every great work the architect's part is visible and the community's part latent. The artist, the creator, invents nothing that falls into his lap from the sky. In our architecture, as in our whole life, we are striving to create a social order, that is to say, to raise the instinctual into consciousness."

Though he himself rejected the idea of being a visionary architect - Le Corbusier's work in the field of town planning was to form the basis of much city design for years to come. In the Salon d'Antanne manifesto of 1922 he describes the plight of the great city.

"The growth of every great city has exceeded all prevision. This growth has been a mad one, with disturbing possibilities. The industrial life and the commercial life which are adjusting themselves to it are new phenomena on an overwhelming scale. Means of transport are the basis of all modern activity. The security of the dwelling is the condition of social equilibrium. The new phenomenon of the great city has arisen within the framework of the old city. The disproportion is such that an intense crisis has been brought about.

HIS CRISIS IS ONLY AT ITS BEGINNING. It is a constant source of disorder."

Three years later he was to produce what has become the fundamental essay on town planning following his designs for Plan Vision, the city for three million inhabitants; to quote from **"The City of Tommorow"**;

"The town is a working tool. Towns do not normally fulfil this function. They are inefficient; they wear out the body, they frustrate the mind. The increasing disorder in our towns is offensive: their decay damages our self-esteem and injures our dignity. They are not worthy of the age. They are no longer worthy of us. A town! It is an assault by man(sic) upon nature. It is human action against nature, a human organism designed for shelter and work. It is a creation! Poetry is a human act - converted interrelationships between perceptible images. To be exact, the poetry of nature is nothing but a construction of the human spirit. The town is a powerful image that activates our spirit. Why should not the town, even today, be a source of poetry? The great city determines everything; war, peace and toil. Great cities are the spiritual workshops in which the work of the world is done. We are part of this society whose dawn is breaking. We have confidence in this new society, confidence that it will find the magnificent expression of its energy. We believe in it. Its energy is like a torrent swollen by storms: a destructive fury. The town is breaking in pieces, the town cannot last, the town is no good any longer. The town is too old, the torrent has no bed."

Technology is a word which has become inextricably linked with architecture of the 20th Century. The advances made in this field in the past century have allowed architects a new freedom and means of expression hitherto unrealised. In 1950 Mies van der Rohe delivered this speech:

"Technology is rooted in the past. It dominates the present and tends into the future. It is a real historical movement - one of the great movements which shape and represent their epoch. It can be compared only with the Classic discovery of man as a person, the Roman will to power, and the religious movement of the Middle Ages. Technology is far more than a method, it is a world in itself. As a method it is superior in almost every respect. But only where it is left to itself, as in gigantic structure of engineering, there technology reveals its true nature. There it is evident that it is not only a useful means, but that it is something, something in itself, something that has a meaning and a powerful form - so powerful in fact, that it is not easy to name it. Is that still technology or is it architecture? And that may be the reason why some people are convinced that architecture will be outmoded and replaced by technology. Such a conviction is not based on clear thinking. The opposite happens. Wherever technology reaches its fulfilment, it transcends into architecture. It is true that architecture depends on facts, but its real field of activity is in the realm of significance. I hope you will understand that architecture has nothing to do with the inventions of forms. It is not a playground for children, young or old. Architecture is the real battleground of the spirit. Architecture wrote the history of the epochs and gave them their names. Architecture depends on its time. It is the crystallisation of its inner structure, the slow unfolding of its form. That is the reason why technology and architecture are so closely related. Our real hope is that they will grow together, that some day the one will be the expression of the other. Only then will we have an architecture worthy of its name: architecture as a true symbol of our time."

Expression of the new technology has become an integral part of the modern metropolis, whether it be the brutalist expression of concrete or the corporate image of glass towers. The increased use of glass in the past two decades makes its somewhat significant to trace the history of glass as a visionary material.

The architect Bruno Taut called Paul Scheerbart the only *"poet in architecture."* From 1893 onwards, Scheerbart wrote of a *"glass architecture"* - the architect's dream of light, crystal clear, colourful, mobile, floating and soaring constructions that would transform **'Old Europe's'** habits of thought and feeling.

From his book **'Glass Architecture'**;

"We live for the most part within enclosed spaces. These form the environment from which our culture grows. Our culture is in a sense a product of our architecture. If we wish to raise our culture to a higher level, we are forced for better or for worse to transform our architecture. And this will be possible only if we remove the enclosed quality from the spaces within which we live. This can be done only through the introduction of glass architecture that lets the sunlight and the light of the moon and stars into our rooms not merely through a few windows, but simultaneously through the greatest possible number of walls that are made entirely of glass - coloured glass. The new environment that we shall thereby create must bring with it a new culture. The surface of the earth would change greatly if brick architecture were everywhere displaced by glass architecture. It would be as though the Earth clad itself in jewellery of brilliants and enamel. The splendour is absolutely unimaginable. And we should then have on the Earth more exquisite things than the gardens of the Arabian nights. Iron construction makes it possible to give walls any form that may be desired. Walls need no longer be vertical. It was the steam railway that produced the brick metropolis culture of today from which we all suffer. Glass architecture will come only when the metropolis in our sense of the word has been done away with.

Both the vision and the practicality drew their strengtn from things that Scheerbart knew at first hand or had seen with his own eyes - glazed verandahs, palm-houses, searchlights, zeppelins and the vision he offers is a compound of all of these torn from their contexts and re-assembled by a mind unrestrained by conventional ideas and received opinions.

Bruno Taut, a close associate of Scheerbart was responsible for the Glass Pavilion at the Werkbund Exhibition of 1914. It was a primitive geodesic dome of steel and glass raised on a drum of glass bricks containing staircases with glass treads and glass ballustrades and with it the dedicating motto:

"Glass brings us the new age. Brick culture does us only harm."

Although the language may have been visionary in nature, Scheerbart and Taut were under no illusion that glass was in itself a universal panacaea.They had too much practical sense for that and knew the weaknesses and side effects of its use. They looked forward to even better materials than glass for full-size buildings and identified laminated glass which had only just been developed as an example of what should be looked for from a lively and developing technology. As Scheerbart so pertinently stated:

"We stand at the beginning not the end of a culture-period. We await entirely new mirales of technology and chemistry. Let us never forget it!"

Some 70 years have passed since the early beginnings of the **"Glass Paradise"** and the present day realisation is summed up in an article by Reynar Banham from 1977:

"In the traditions of the modern movement in architecture, glass is the party of order and hygene. It stands for the replacement of the shacks of the huddled poor by clean crystal towers. It stands for the illumination of the dark places of vernacular superstition by the pure light of rationality. World-wide it has become the symbolic material of clarity, literal and phenomenal. It was therefore appropriate to all the aspirations of the founders of the United Nations who gave it physical form in their headquarters tower in New York. Less felicitouslty, though, it proved equally apt to the ambitions of great multi-national corporations. Worse yet, to the avarice of downtown developers the world over."

It is therefore with a degree of pathos that we now regard the prophecy of Bruno Taut some 66 years ago.

"In the distance shines our tommorrow. Hurray! three times hurray for our Kingdom withour force: Hurray for the transparent, the clear; Hurray for purity; Hurray for crystal; Hurray and again hurray for the fluid, the graceful, the angular, the sparkling, the flashing, the light - hurray for everlasting architecture."

For every man, woman and child alive in the year 1900, there are three today and there will be six early in the next century. This explosion in human numbers underlies the urgency of better human settlement planning. But nearly as important as growth in numbersis the change in where people live. At the beginning of the century, four out of every five people lived in rural areas. By the year 2 000 more than half of all people will live in urban areas.

"The new era is a fact - it exists entirely independantly of whether we say 'yes' or 'no' to it. What matters is not 'what' but only 'how'. Whether we build high or low, with steel and glass, tells us nothing about the value of the building. Whether in town planning we aim at centralisation or decentralisation is a practical question, not one of value. But precisely the question of value is decisive. We have to establish new values, to demonstrate ultimate aims, in order to acquire criteria. For the meaning and right of every age, including our own, consists solely in providing the spirit with the necessary prerequisites for its existence."

Those are the words of Mies van der Rohe addressing the Deutscher Werkbund Congress in 1930.

Between believing and not believing: it is better to believe. Between acting and disintegrating: it is better to act.

Architect as Artist

Julian Cooke

That architecture is an art and hence the architect an artist is obvious. In the first place many architects have been skilled artists in other media also. Secondly the whole history of architectural theory and of art are more or less one and the same. And thirdly there are many places where it is impossible to say where architecture ends and sculpture or painting or gardening begins.

Yet during the modern age, art has been subverted, and many of its positive themes have shifted over into a negative path.

The concern of this paper is the edges of art, where architects like all artists find themselves in dead ends. It examines three conceptions of art which at various times in history have been bodied out as theories, but are also components of any work of art at any time: art as expression, as imitation, and art as social concern.

Art as Expression

In art an expressive content is of course essential, an art which doesn't embody or evoke human emotion is almost inaccessible. However when personal expression, the expression of the inner self of the artist, outweighs all other considerations, the work degenerates into non-art. There are certain ideas allied with this conception: novelty is highly esteemed; differences between works are more valued than similarities; creation occurs in a flash of inspiration; and certain forms of art by their nature carry particular meanings.

Yet when the practice of art is examined the notion of art as expression becomes theoretically very weak. Take Wordsworth, one of the high priests of Romantic Poetry, as an example. He spoke of art as "The spontaneous flow of feelings". But when one tests this statement through an example of his work in which several rewritings and a search through his rhyming dictionary are needed to expand a single metaphor into two lines of poetry, we find many contradictions.

Far from being an 'overflow', a pouring out, a release, an expression; the original feelings are broadened and bodied out with theother thoughts and feelings, and built up into something of a much more profound order. The suggestion that there is something mysterious and involuntary in the process of conception is belied by the fact the the imagery of the metaphor is neither particularly remarkable nor personal. It could quite easily have been touched off by someone else's poem.

All this may seem to deny the artist's creativity. In fact it is put in a clearer and more attainable perspective. The creativity lies in synthesis: the synthesis of a primary image, of ideas which stem from the work itself, of reference to the historical body of art and of structure, in a coherent whole. The personal lies in the manner in which that synthesis is reached.

If there are theoretical weaknesses in this conception of art, there are also dangers. Isolation occurs when too much attention is paid to the individuality and mysterious power of the artist. Only the private act is stressed and it becomes unimportant that meaning should be conveyed to an audience or that the work has a relationship with context or history.

Another danger is the emphasis on novelty. The pursuit of novelty simply produces works which add to an already unintelligble world. Each attempts to start from scratch what mankind (sic) has been exploring for centuries. I am much more comfortable with T.S.Eliot's idea of working with a 'historical sense' which 'involves a perception, not only of the pastness of the past, but of its presence'. You work therefore with the whole history of art in your bones, as well as with your own time.

Art as Imitation

This notion breaks down when imitation becomes literal copying on the one hand, and is interpreted as a search for universal essence on the other. There are many works today which have all the appearances of art, but which are no more than literal copies.

In architecture as in other art forms, imitation must imply something beyond the literal. Thus the Ise Shrines in Japan reflect on ancient treasure houses; their thatch roofs imitate homes and through their

extra thickness make special the home of the deity; their construction forms greatly exceed the real needs of construction and become sacred signs. At the same time they represent something of the forest. The Doric order is a stone interpretation of timber construction; it is a metaphor of construction in the way that its capital cushions out to take the lintel's load, swells a little under the load, suggests the transmission of load through its flutes; it contains anthropomorphic meaning; and grouped it may refer to a sacred grove.

These elements bring together meanings gathered from our ordinary experiences of life and from the conventions of history. As Alan Colquhoun would have it, they have 'figural' quality. They are not literal constructions, but rather the signs of other things in the culture. Therefore they have meaning which can be read by anyone at any level.

In the tradition of imitation in art, many people have sought to portray the essence of nature. Plato didn't think much of artists because for him they merely imitated natural forms which themselves were imperfect imitations of pure ideas. Their works were twice removed from essential truth. Two millenia later, Joshua Reynolds thought that to achieve great art you have to strip away all the imperfections of nature so that you represent a perfect nature, the essence of nature. And 20th Century artists like Kandinsky and Mondrian wanted to go even further to show the pure forms of the spirit which lie behind the appearance of things.

All these efforts moved towards simplification, extraction, reduction and in the end abstraction. And the end means very little except to a tiny elite group. Art should surely have a wider audience than that.

Art, artists and the audience

In this conception artists must come down from pedestals, be a person of the people, know their fears, joys and aspirations, and communicate. If people are moved or delighted or taught, art has achieved its objective, and our judgement of the work of art is guided by the extent to which that continues to be so.

It is in this third conception that architecture expands beyond the generality of art, in the way that painting or drama or poetry expand into their own universes.

Architects make places, not things or objects, but places which encompass and bring added dimension to all those activities and rituals and events that comprise the human situation. And these places cannot be avoided as music can be switched off, a book closed or a painting taken down. We are unavoidably involved with the public domain, with our audience. ENABLING- SPACE

Place making at the elementary level implies firstly making oppurtunities. An analogy for that in the other arts might be the idea of leaving space in the work for personal imagination and interpretation. But in architecture you have to make space which enables use as well as perception, not specific use but of many different kinds. This does not imply empty flexible space but suggestive space.

The principle, but not the only area for suggestive space is at the edge between public and private domains; so every building can contribute. Here a deep overlap between the two can clarify the domain of the private, construct oppurtunities for contact between both worlds, and suggest activity space for the public.

Most old cities and home-made places work like this. In an Ndebele dwelling the succession of spaces in the overlap, defines its domain and makes oppurtunities to stop and talk. The Cape stoep on the street does the same. These suggestive spaces make the city habitable and meaning aggregates to them through use. EXPERIENTAL SPACE

Secondly, at this level, places are made comprehensible through your experience of them. And each building can contribute to that too. Wall directions indicate possible movement, objects shift it, close spaces constrain it, stairs slow it, cul de sacs end it, and so on ad infinitum. In a myriad of ways the forms of the built environment communicate by varying your experience.

If you combine these two - enabling an experiential space, the city is both habitable and legible. It gathers deep implicit meaning and the man (sic) in the street is guided, welcomed, surprised, offered all manner of oppurtunities without even being aware of it.

The second aspect of public responsibility for the architect, arises in the fact that not only do we present the world, we make it - or at least a fragment of it. In doing this we have to make a synthesis between the two themes. The first is particular - ensuring a significant relationship within our context. The second is general - proposing a piece of the kind of whole we would want to see. We have to particularise but we must also make models or leads for future development. If we don't do this we contribute simply to our already over-differentiated world. If we do, we will be attempting to build up places which have unity and a sense of community.

Thirdly for a city to be coherent, its institutions need to be apparent, articulating the city, representing its history, ennobling our experience.

For these intentions and activities, there are no ready equivalents in the other arts. They are not new ideas but I believe that they are fundamental - and in the scramble for style and the battle of big business, they are usually forgotten. However, like the other conceptions of art we have discussed - as expression and imitation, this one also has its negative path, which occurs when the satisfaction of audience overrides other considerations and when the desire to satisfy seduces the artist beyond the proper confines of his (sic) work. The first is obvious and already touched upon. Real art has many levels of meaning, and when its reception by a mass audience is so important that those levels are reduced, art becomes trivial, and fashionable popularity or propaganda take over.

The second breakdown point is a little more complicated. As serious, idealistic artists wishing to serve society we very easily make determinist assumptions. We assume that our work will affect our audience's behaviour or state of mind. We assume that there will be a close correspondence between our intention and their response. We might even go so far as to imagine that our work will determine their state of mind.

This determinism is weak. It is also, and particularly with architects, dangerous. One simply had to think of the passionate belief of LeCorbusier and Gropius that large blocks in green gardens would make a happier world, to understand how dangerous it can be. A succeeding generation of architects felt less confident about human psychology than Corb and Gropius did and embarked on a course of studies in the social sciences, perceptual psychology, anthropology and sociology to improve their understanding of the 60's, when every architectural school was covered with matrices of human needs. The endless time consuming study was still taking place within the confines of determinist thinking. We became involved in a pseudo-science and as artists ended up far removed from art.

It is left for me to suggest a last area of responsibility, not in practice but in the fight for the oppurtunity to practice art.

In all this talk, we tend to forget that our society subverts the practice of art at almost every turn. What chance is there for architecture in the city where the combined forces of huge developers, profit motives, rate structures and a monopolisitic building industry all undermine it? And in the suburbs with their mindless planning, mindless bylaws, fearful and privatised lifestyle? Or on the cities' edges where land is simply consumed as a commodity? Or in the townships? What chance is there for architecture when people are living a dozen in a room? What human insitutions are there to celebrate, when families are broken, schools are symbols of discrimination, governmental structures the playthings of oppression, or oppression itself?

We have to serve not only as artists - but as advocates of the threatened and oppressed, as educators about the ills in our physical world and as visionaries of a better one.

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Towards a South African Architecture - Regionalism?

Iain Lowe

Early definitions of Regionalism have generally been rooted in the identity of the vernacular or traditional in materialism and the topography of the landscape. This has resulted in a somewhat reductive interpretation of Regionalism as a place-bounded stylism. Regionalism is not style; it should be viewed as part of a much larger and ideological attitude to architecture and not as an isolated entity.

Particularly in the context of Southern Africa, it is important to recognise that in any concept of Regionalism we are concerned not with a set of individual references, but with a collective process which arises from the socio-political, economic and geographical conditions of the region and its people. In this regard we may conclude that a Southern African architecture has yet to be realised.

There do exist some fine examples of regionally based achitecture in Southern Africa. These exist however as entities in their own right and their regionalist quality relates to some aspect of place or locale.

The architecture of the Cape Dutch is one of the finer examples of true Regionalism, where there is a consistent and developed attitude to landscape, to formal and spatial compositions, as well as to material, finish, interior and even furnishing. A resultant typology is evident, based on the assemblage of elements through strongly regional influences. What is discernable is an architectural vocabulary eminating from the circumstances prevailing at that time in the Cape for the making of shelter.

In the light of Regionalism as an all embracing and collective ideological concern, I would like to speak about the development of a personal architectural language over the past five years in Lesotho.

The concerns motivating the design of the People's Facility in Qoaina in 1980 were primarily: -

* the reciprocity of building with landscape
* the hierarchical organisation of built form relating to traditional patterns and;
* the notion of dual utilitarianismin relation to the manner of place making.

In the development of a prototype for primary schools the initial solution lay in a direct continuation of the ideas developed in the People's Facility, explored in the one-offs.

Later, however, a more minimalist approach and a distinctive response to climate and solar gain in particular; was developed.

The extent of the programme encouraged the rationalisation of the means of architecural production. The essentially economic consideration of retaining money within the fragile economy of Lesotho called for the exploitation of natural resources and materials, as well as the utilisation and adaption of traditional skills and construction methodologies. Further concerns involved addressing the problem of limited technical expertise, limiting costs to a minimum to gain extra classroom space and coping with the problem of inaccessible sites. Ultimately a solution emerged in the development of a system of construction and a consequent range of building typologies.

This was discussed in terms of the methodology of construction in response to the problems of cost and site, economy of means, the relationship to the landscape in order to generate meaningful outdoor spaces and the participation of the user.

Prior to concluding, I would like to stress that for the main, Southern Africa is a developing situation. The region therefore cannot sustain the current first world approach to architecture.

When one takes into account the disparities between the peoples of the region in terms of basic human requirements of shelter, food, health education and so on, one is forced to question most architectural activity where form follows fashion, be it glazed box or pink palace.

So where do the solutions lie ?

Primarily I believe in the process of aculturisation in the education system. We come to practice through a theoretical understanding.

It is only now in the '80's that some universities are beginning to pay active attention to the following:

* architectural education of the disenfranchised groups;
* the notion of development issues and african studies forming an integral and compulsory part of the curriculum;
* the fact that we are part of the African continent and that other areas in the region have expertise and knowledge to share;
* and the fact that we as designers of the built environment have an active role to play in the determination of a future South Africa.

There exists the need for the development of an architectural methodology which could be applied to solve the specific problems of a region. In South Africa, the profession needs to re-evaluate its position relative to the region as a whole and South Africa in particular.

In conclusion, I would like to quote from my Manifesto prepared for last years I.S.A.A Congress, entitled - **Toward an Architecture- Building with Limited Means;**

1. An architect for South Africa must take cogniscence of the overall socio-political and economic constraints of the country.

2. The current disparity between the people of South Africa is reflected in their habitat and the condition of their respective shelter.

3. The practise of architecure in South Africa is often an elitest affair which the ISAA attempts to control and can therefore change.

4. Any attempt to resolve an architecure for South Africa must consider the above in terms of limited resources, mass of people to be sheltered, appropriateness of technology and energy, labour intensive methods etc.

5. Solutions which build /// limited means and attempt to develop standard construction and building typology which are easily replicable, responsive to their particular context and adaptabe throughout the region must therefore be addressed.

responsive to their particular context and adaptabe throughout the region must therefore be addressed.

6. While architecture relies on conceptual ideas, it is the translation of ideas into built form governed by the five primary responses to context, space, formality, function and generality that make for good architecture.

Regionalism

I believe that a synthesis of the above, dictates an ideological position which is committed to the idea of an holistic or all-embracing regionalism for architecure in Southern Africa.

Furthermore I believe that Regionalism of this nature is a basis for the restoration of an Architectural continuity, communicative with and reflective of our present reality.

Leon van Schaik

Against Regionalism

Why 'Against Regionalism'?

My approach to the supposedly unique combination of 'first-world' and 'third-world' development issues in this country is to question whether in fact this formulation is not simply another of those politically useful ploys for making out that this countryis somehow 'different' and that it merits 'different' treatment. And in this context I believe that 'Regionalism' is another catch-all that confirms local prejudices and excuses local lapses from international standards, be those lapses moral or cultural.

I am deeply disturbed of the recently reintroduced parlour game 'Regionalism'; a game in which on ill-defined grounds some buildings are considered 'regional' while others are described as 'international'. Here it seems that 'regional' and 'relevant' are terms that go together while 'international' is an unaccompanied expletive.

My position is simple and was clearly stated by Harold Acton in 1948: whatever else we may or may not be, at our best we are citizens of the world. Any other aspiration cuts us off from the pursuit of awareness and substitutes for that noble aim varietiesof special pleadings. "True culture is universal. Over two thousand years ago Confucius talked of'T'ien hsia wei kung', 'the universe for everybody'"(1) When Athol Fugard's 'The Island' receives world wide acclaim it is because he writes to transcend the local and to touch the human condition universally.

The universality of science is accepted without dissent. But culture should be so viewed comes as a surprise to many. We know thatexcellence in this sphere is often rooted in particular; but its excellence derives from its ability to transcend that local origin and speak in the universal conversation which is on the cutting edge of mankind's (sic) growing awareness.

Culture thus being universal, it follows that glorification of the tribe is detrimental to creation. Sectarian group values flourish under the banner of 'Regionalism' and atavism abounds. It is the universal that judges ultimately each petty tyrant's region. And it is the universal culture of humanism which grows beyond the transitory leanings of particular tyrannies, tribes and belief systems, and which is the home of mankind's (sic) noblest searchings.

This is not to insist that the universal in culture denies adaptation to the particular; but it is to claim that it overrides that accommodation and does not glorify 'difference' into an 'ism' complete with its own values and its own excuses for deviation from the imperatives of history. The declaration of human rights is necessarily international, as Hadrian himself affirms: "All nations that have perished have done so for lack of generosity; Sparta would have survived longer had she given her Helots some interest in her survival. There is always a day when Atlas ceases to support the weight of the heavens and his revolt shakes the earth." (2) Yes I believe there is a direct connection between the local political obtuseness that refuses to accept any parallels between this particular and any other and the call for a 'regional' architecture.

Not surprisingly confusion reigns in relation to that call. Can two views of the particular coincide without a referant? Other, that is, than parochial despair and damage control? An Italian style candy stripe cylinder building badly built by one (?) unskilled labourer is described as 'regional', while another building of no obvious provenance built by some 50 locally trained artisans is described as 'international'. Buildings in two coastal cities which have never been properly closed off to the elements are 'regional' because they 'respond' to the regional climate (?) while glass buildings are per se 'international'.

In my view, then, culture is international and it speaks in that conversation. That which glorifies petty local prejudices, nationalism in all its guises, is not international and is a false culture, as false as the applied gingerbread of the ignobly appropriated Teutonic myths with which the Nazis enmeshed their country.

That I addressed myself to 'regionalism' is a function of my belief that it as a slogan encompasses attitudes of great danger to architectural thought here and now. Obviously one can point to healthy regionlism: the arts and crafts movement perhaps, or Voysey, or Gertrude Jekyll; but one can equally as above, point to unhealthy regionalsim such as that espoused by Albert Speer and his patron, in which folksy cottages redolent with references to the regional folk history replace what Nazism saw as unhealthy internationalism. Ask yourself then into whose hands the arguments of 'regionalism' play in RSA in 1986, and consider carefully how such arguments here play into the self delusions of the governing class.

I would argue that we have an overriding duty to subject any local phenomenon to the scrutiny of international standards or risk aligning ourselves with collapse of language which is evident in the political life of our governing class. In ways disturbingly parallel to the local architectural parlour game, terms in RSA's political discourse are not defined, are used to mean whatever is convenient at a given time, and are used to conceal the truth.

So to me the 'third-world/first-world' particularity of our 'Regionalism' is a difficult notion to accept. I take it to mean that there is a discontinuity between the two worlds so far as the application of thought and skill is concerned. And this I do not accept. The green revolution in agriculture did not come about through a group of scientists abandoning first world thought for some new mode of thinking. It came about through the application of best available 'international' thinking to a specific (call it) 'third-world' problem.

'Third-worldism' is usually an excuse for off-loading inferior or inappropriate products onto client populations. It has been said to have been done with baby formula milk powder; some say that Amaprop does with cast-off designs and materials from Chicago.

However, while first-world versus third-world does not seem to be the issue, participation versus imposition could well be, but that is argued elsewhere.

If you wish to be useful in a developing context, clearly you will need to avail yourself of the best possible tools for tackling the problem. In a development context, clearly you will need enough knowledge of adjacent disciplines to be able to provide appropriate back-up. Here I am thinking of planning, anthropology, economics, management, and so on. You will need to be conversant with the concept of appropriate technology, and to be able to think through processes. There are well-tried techniques for analysing activites, for obtaining community feedback without which design risks being an imposition and a wast of resources.

All of this is familiar and I reiterate to demonstrate the importance of this argument.While much must come from deep understanding of the particular, the aspiration of study must be to the universal if it is to relate to culture, that body of thought and deeds by which mankind's (sic) awareness of the universe proceeds. it is precisely when regions do not speak in that conversation that the disasters of indiscriminate borrowing occur, the terrible unthought versions of metropolitan building that mar our cities. And from that 'no-speak' come also the empty banalties of much of our run-of-the-mill building.

Heady context this, in which to discuss some of the works of the atelier in which I have worked for these past years. Heady, but necessary because ambition towards the universal is all that we have to motivate our doings if they are not to be merely imitativeof fashion plates from livelier shores, or simple enshrinements of the local body politic. This atelier is international in its composition and contacts, drawing regularly on Britain and France, Austria and Japan, the USA. Yet while we aspire to be part of that conversation from which we have been progressively removed by local particualrism, we do respond to the genus loci but not at all costs. As Hadrian again would have it: "Everywhere, on level ground as in the mountains, on the edge of the forest and in the desert, the legions spread or concentrate their buildings, always the same, their drill fields, their barracks, constructed at Cologne to resist the snow, at Lambaesis for shelter from sand storms; likewise their storehouses ... presided over

by a statue of the emperor. But uniformity is no more apparent ...To build is to collaborate with the earth...what thought and care to determine the exact site for a bridge, or for a fountain...!" With hindsight we know that the particular picturesque of Alnwick, for examplehad grown from that universal but carefully placed grid.

My purpose here, therefore, is to state emphatically the need we feel for the universal, and my sub-task is to examine what I regard as the workings of healthy regional concerns on our larger goals.

But we cannot imagine that development in South Africa takes place in nicely remote places. Every building project here is party to the problems that beset the country. As I have said, the division of South Africa into 'first' and 'third' worlds is only an excuse for things which are all pervasive. City projects suffer from a desperate shortage of skills because of the nexus of policies surrounding forced removals, deliberate denial of access to education, and so on.

This being the case, what are the factors which we are forced to deal with if we build? The erosive force of inflation causes all buildings to be built before documentation, even design, is complete. Detailing has to be appropriate to the level of available skills (unless you are prepared to import your stonemason from Salt Lake City as the Mormans did for their temple on Parktown Ridge).

Then there are place-making factors. It is very often the case that a design is in virgin territory and it becomes imperative to create a sense of place through the careful disposition of building blocks. Where this is related to the micro-climate, the place making receives a tremendous fillip. I refer to orientation for passive solar heat collection and storage, the exclusion of bitter winter winds, the use of summer breezes, the collection and distribution of rain water, and so on. Working in Soweto, in Mmabatho and in the highveld generally, we have developed a strategy for virgin sites which I term a 'campus' approach. Given our socio-political context it is easy to see this as a 'laager' approach. It will be clear from what has passed before this is far from the intention. The form shares characteristics with our view of a 'campus' (Hadrian again), characteristics which are comon also to 'oasis'. These characteristics are the product of responses to physical variaties of the highveld. In semi-arid savannah, building complexes have to create their own edges, a phenomenon which differs vastly from the roots of place-making in Western Europe and Eastern USA. (3) Our ancestors in those regions carved their places out of the all-enveloping forest; our ancestors here and to model their places between the planes of earth and sky. Thus the temperature zone of place starts with a small clearing of not-forest which is geometrically defined to distinguish it from the dark unknown beyond. As the place grows in confidence so it extends, dissecting axes into the forest (lines of reason). In time these are joined into a network and the forest is subdued.

On the semi-arid plain it is the hidden that has to be created, for under the wide heaven all is known and the axes run to every horizon. Hence the deep layering of all the houses of our forebearers: the concentric rooms of the Botswana behind the compound wall; the numerous thresholds between that outside savannah and the inner sanctum of the house. Hence also the complex route to the centre of the Botswana cattle towns, and the archeological findings of iron age settlements in the Transvaal with their tortuous walled cattle routes.

There are countless examples of this need to turn a back on the vastness of the plain, a plain which has all too often been turned into a travesty of a city by technocrats bent on the provision of housing at the expense of all human value. These houses dot the plain on a grid pattern, the roads making the occasional gesture to the geometry of the temperate forest, but the open harshness of that plain is intensified. There is no sanctuary, no oasis, no balm for a human soul. And beyond the dormitory suburb lies an industrial subtopia also laid out on a grid; also intensifying the nothingness of the plain. And at the core of subtopia there lies yet another unceremonial grid articulated not to succour man (sic) but articulated on the thinnest of greeds...thus does each building project face us with the problem of creating an oasis in a plain that has become a desert of mediocrity.

Were it a better ordered world predicated on more generous values we could be adding building blocks to a grand design or urban scale, we could be making our small contribution to a city of vision such as Rome or Milan or Paris or Vienna, but it is not and we are not...

So we turn our backs to the vast and dreary savannah and establish centred places which face in on themselves and refer to themselves in order to intensify their identity; focus on a garden oasis while the desert runs up to the outer portals; make so many 'Islands of Good'.

Just as in the archetype of the response to living on the plains, multiple thresholds are all-important. From the portals routes lead through succeeding stages of privacy to the still centre where the horrors of that plain are excluded from mind and contemplation of man's (sic) generosity is again possible.

I have mentioned some African examples: temperate man(sic) when transplanted onto the savannah, instinctively followed the same route as we can see at Morija Mission in Lesotho or at Dunira in Natal, a tropical farmstead with the verandah all round. The strategy includes tree planting to create a context, making a driveway that leads to its destination by a series of twists and arrives on a by-passing axis focussed on a framed portion of the horizon. No matter how spectacular that horizon, the buildings are focussed on the oasis itself, the far view is excluded except as a terminaion of one or two controlled axes. And the oasis has a determined domesticity of scale, a determined humility of detail; for it would be idle folly to compete with the power of the plain and its horizon.

And so it is that the roofs cover all, walls flow through subtly battended, the ground plane is adopted, the middle ground is removed, and we come to rest in a place still as the evening that falls on the plain but removed from its revered anxiety.

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Appropriate Technology

Jo Noero

Firstly I'd like to describe my concern with what I think has gone wrong, certainly in the latter part of the 20th Century - with technology. There is something wrong and at the moment we live in a fairly optimistic period, (not in this country, but internationally), in that the energy crisis which hit us so badly in the 70's has suddenly disappeared and once again the earth's resources are infinite, once more we can continue burning oil and forests !

The one major problem with late 19th and 20th Century technology is that man(sic) has effectively become alienated, not only from the means of production, but also from the mode of production. The Marxist-socialist arguement is that man(sic) is alienated from the means of production, that is society collectively doesn't own the means of production. It is this relationship we have to re-establish or readjust.

I think however, that the matter goes beyond the ownership of means, it also deals with how we make things. Man(sic) has become so alienated from the kind of systems of production that in fact we can no longer rely on man and his contribution to the making of things. Consequently we have moved from labour intensive production to capital intensive systems of production. Man (sic) is being replaced by machines.

Whilst I agree with what was said earlier about people generally wanting to make life easier for themselves, this process in itself has created a form of cultural impoverishment. Having removed people from the work place, from the production of basic necessities and having replaced humanity's ingenuity, imagination, creativity and labour with machines, we have lost something culturally, and I think this is certainly manifested in the kind of architecture that we see today, particularly in the field of housing.

Another consequence is humanity's alienation from the workplace, because we can no longer rely upon the energy, creativity and people's labour, which is a renewable, infinite and basic resource; we have to rely upon valuable, finite, capital resources such as coal, oil, petroleum or whatever, which in themselves can't be replaced. Thus the resources that we use to make things are inflationary because they are part of an ever diminshing supply. The technology we employ today is not only alienated but it's also energy wasteful. This arguement is not a recent one. Ruskin spoke about this in the 19th Century when he discussed the Gothic style. The Gothic way of making buildings being the only true style, because the workers - the people responsible for the manufacturing, the creation of the architecture - were involved in a creative, and resourceful way, decision making was decentralised and everyone effectively made a valuable and imaginative contribution. In a sense, I agree, because it is only in this way that culture becomes truly responsive.

These are the two main defects, or main areas of concern, that I have with contemporary technology. The third one is simply that when one uses capital intensive systems of technology, one has to centralise the control of that technology. This means that technology becomes highly unresponsive to people's needs. People have a variety of needs and the expression of those needs are independent on the individual. By using capital intensive sources of technology, that very ability is lost. 'Ashby's Law of Requisite Variety' is a principle that applies to system's theory but what it says, is that the variety of the controlling system must be at least as great as the systems to be controlled, if equilibrium is to be maintained. And thus with the systems of mass housing we employ in this country - because those systems of technology have to be centralised - we cannot achieve anykind of variety.

If we had to achieve the kind of variety that is needed, the equilibrium of the system would fall down, and this is what's happening today.

If one looks at the trouble we have in the townships, the system is breaking down, because it does not possess variability. There are other reasons, obviously, but now we are talking about it from a purely physical

point of view.

If one looks at the current notion of housing as a commodity; people are told that there's a great deal of variety in the market place, that anyone can purchase any kind of house they want, or that the marketplace will be responsive to their needs. And if new needs are perceived then new house forms will be evovled. That's not so. The only freedom people have in the market place today, is in terms of what kind of things they can add to their homes, in other words, we've reduced housing - which should be a valuable cultural exercise, expression - to a supermarket commodity. We purchase a particular type, and then you go to the supermarket and you buy your Corinthian columns and Ionic columns or whatever, and that's where personal expression is invested. This is a reduction not an enhancement of culture. The systems we employ today are culturally valueless.

A framework for appropriate technology: Technology may be defined as the means used by man(sic) to satisfy his (sic) material needs, comprising four basic components : the organisation of work, the materials and tools that are required and the harnessed energies used to realise these needs.

These elements are highly inter-dependant. Terms of reference in a framework for building technology, must at least recognise the difference between large and small scale organisations and between the production components and their assembly.

When one talks about production in architecture or housing we can talk about three basic constituants, the elements, components and assembly and their differences.

Elements are basic materials from which components are made, assembly is in fact the assembly of those components on sites. So you have three stages of production. In order to develop an appropriate response to technology, we must understand who controls each part of every stage.

So too, with the levels of organisation that we employ when we build; small, intermediate and large.

These operate between the following limits: small organisations are limited to small structures that need only hand held equipment; intermediate organisations can handle anything from small houses to structures that do not demand heavy equipment like cranes; and large organisations which can operate nationally or internationally. These two sets form an array of possibilities.

Effectively what I'm talking about is a three dimensional matrix. The combinations of the nine elements and their appropriateness lie in the nature of the task that's required and the relationships between the different components and the kinds of arrays that those patterns make.

I have defined three patterns: that of autonomy, of heteronomy and of autarchy, each of which has great impact.

The patern of autonomy - the assembly of housing or the formation of neighbourhoods of small scale by small organisations from locally and regionally supplied components with resources supplied at all levels, but controlled by government networks of self-governing bodies acting within the limits of interdependence, negotiating supply of elements. It is typically the most traditional form of small scale housing.

Thus when one talks about alternative or appropriate technology, one must not reduce the problem to what the thing looks like or to issues of what kind of physical manifestation the technology has. There are different needs at different scales for different kinds of technology because I don't think that one would use the pattern of autonomy as I've defined it here, where you have the assembly of components taking place in say Cape Canaveral but the manufacture of the components happening in someone's backyard.

The issue is not an either/or one between the high-tech or alternative or appropriate technology - it has to do with identifying the appropriate technology for the particular case.

Housing is particularly awkward to deal with when one deals with technology because there are different needs for different kinds of people - certainly in the cities there are needs that sometimes require a capital intensive form of technology in order to produce large amounts of

accommodation very rapidly.

At other times one needs to produce or allow certain kinds of housing to occur in a very local autonomous way, similar to the first pattern of autonomy.

The key issue is thus to identify what is appropriate in technology. What makes technology appropriate and how one can analyse a technological action in order to establish its appropriateness. This quality must be asessed by the impact of any technology on the social, economic and physical environment.

I agree - with the previous speaker - that society strives to achieve the maximum it can and at times it trades off so-called progress against other social disbenefits. But I think one must place this viewpoint in historical perspective.

In the 1940's/1950's, a notion that development and progress must occur at all cost, that there will be a trickle down process, arose. The atitude prevalent at the time was "we'll all be dead", and the development and progress of technology must be allowed to grow unabated, it must be able to realise itself. The consequences of that kind of growth will always take care of itself.

We are now living with the consequences of that kind of action and I think this is one of the reasons why disillusionment has set in. An appropriate technology must allow the people involved to work together co-operatively and to minimise the possibility of alienation. It must maximise the useof plentiful and renewable resources which are both human and material.

How does one assess the appropriateness of these three aspects- social, ecomomic and physical?

Briefly the main indicator of social impact should be the scale at which the technology can be handled. The smaller the scale, the better. The larger the scale of operations demanded by a given technology which in turn may be imposed by the choice of materials, tools or forms of energy, the smaller the field of interaction. The smaller the field, the more impersonal and alienated the work becomes. So that would be a social indicator for appropriateness in technological terms.

The principle indicator of economic impact of technology can be assumed to be the ratios between income resources and the capital resources demanded. Genuine economy, which is the resourceful use of what people have to have, in other words, achieving the maximum with the minimum means, means living off income and not capital, which is either irreplaceable or takes much longer to accumulate than to consume.

Commercial profitability for example, is as likely to indicate wastefulness as resourcefulness. Excessive use and consequent dependency on non-renewable or scarce resources is bound to be inflationary and polluting. When companies publish their balance sheets at the end of the financial year, they show large profit margins. What they don't show is the social, physical and economic impact of their actions on society, in other words, the pollution, deprivation or depletion of natural resources etc.

The principle indicator of the physical impact of technology - is the degree of physical pollution of the air, the water and the soil.

Those are the three indicators and the impact of technology certainly in architecture or on architectural form, involves these kinds of issues.

When talking about social indicators, we're not actually talking about the manifestation and impact of plan on people and their use of space. We're talking about the process of assembling the building, and the social impact that that has on the people who are involved in that process of work.

Geoffrey Pain said that; "technological appropriateness is primarily a function of the proportions and ratios of the non-monetary factors identified when one talks about income versus capital resourcefulness and relations to the rate of actions and scales of organisations also described."

Therefore the question of the matter of proportion and distribution between the various levels of action and organisation, is not an either/or question.

This position is in line with the policy of intermediate technology. Although widely misunderstood and misrepresented, intermediate technology means exactly what the name implies. It is a technology inbetween the increasingly polarised and mutually exclusive capital and labour intensive technologies.

As Scumacher has observed, 3rd world countries display a highly destructive and increasing division in building, between overworked artisans dependent on crude materials and tools and underused heavy capital intensive industrial capacity. More and more studies show how the most economic and potentially productive 'medium-sized' building firms are driven out by the monopolisation of the market and cannot create a market among the population that is not served by the monopolistic sector, even if this marginal group is very large. They can only afford to use very poorly paid artisans to compliment their own unsupported efforts.

The dramatic decline of intermediate technology is a world-wide phenomenon, evident in many 3rd world countries, and juxtapositions of huge settlements of small and often crudely built shack dwellings with huge blocks and towers of modern flats are very common.

Unplanned Architecture

Pedro Guedes.

That which is unplanned, often appears very casual, without that premeditation that exists through conscious efforts of an architect. The aspect of time is important, not as in the redundancy factor of modern buildings, but that these objects suit a specific purpose. Architecture without buildings, can be seen as the casual occupation of a piece of ground for a short period of time. For example, people occupying a rock near the ocean, close to the beach yet away from others. Their place is going to exist for only as long as they are there, but it is a place that has many equivalents with other organised and designed places.

The aspect of time and permanence is not always controlled by the user, but by the authorities who often make the intervention on their behalf.A low key example is the municiple authorities providing deck chairs for hire in Hyde Park, inducing the public to place furniturein the landscape, whilst enjoying the sun, or the provision of benches under trees in theshade, typical of provincial French towns.

The Bedouins have introduced an architecture that is not only mobile, but also very versatile, in that it can occupy virtually any space. Their occupation is integrally related to their economy and the time continuium. That is the time in which it takes their flocks to consume the feed within the vicinity. Their architecture, although 'primitive in the modern sense', has well established domestic elements. Their privacy is guaranteed by their wild dogs, who control the immediate space surrounding their dwellings, making redundant fences or any elaborate protection.

The functions of religious and ceremonial architecture can and have been resolved in very modest ways, amounting to the recognition of sanctoral elements (a tree) and creation of space (use of concrete blocks). In a similar way, secular requirements have been met, when by overcoming limited resources, and exploiting a good climate, a public library was created in a park in Lisbon.

By extension, unplanned things, lead to the way in which people use their cities. Until the last century, trade and commerce was handled in a very informal way, with the lower level of distribution handled by people operating on the street. Mobility was an important aspect, so that individual traders could respond to their specific 'trading' pressures, leading to the development of spontaneous markets, demonstrating a very low level, yet oppurtunistic response to living in the city.

The intervention of municipal authorities led to the formalisation (permanence) of these markets, either by establishing their positions, or encouraging the tradition of markets, recurring either weekly or monthly. Fish markets are a good example to demonstrate the direct relationship between the produce for sale and the locality of the market (as the fish come off the boats, they are bought by the traders who in turn sell them to the general public on the quay).

Similarly in many Mediterranean countries where the climate is relatively benign, many outdoor spaces have been formally utilised, perceived as an oppurtunity for increasing trade and making the place more attractive (eg: Paris sidewalk cafes).

In North Africa, Arab architecture has developed in a very insect-like manner, in which the varied combination of a similar cell has been utilised to make up different buildings. Land has been divided up in various ways, with a certain regularity, broken down by the way it is occupied and the way routes have been formed. With the advent of the 'Galleria', arcaded buildings in Northern Europe were standardised, which although resolved in a similar way, with the same materials, respond differently in detail. The ground floor spaces of Middle Eastern houses, mere units of space that relate to the street, have adapted to being used as factories, shops and offices. It is these different responses to similar situations that generate the spontenaity of unplanned places.

The complete antithesis of all these things is the notion of planning in response to a perceived need, rather than that arising organically. Thus

an aerial view of American suburbia shows a small number of things which make up one's life, rigidly organised in an archetypal way of occupying the land. Built over a short period of time, inevitably leading to a lack of response to anything within the landscape that may have some meaning, or anything that can change as a response to some need that may develop.

Similarly, the Royal Crescent in Bath, England, is conceived of as a total facade, rigorously conforming to an idea borrowed from the Colosseum (Rome). Differing fenestration is used between the columns, but the colonnade is strong enough to dominate and retain the totality of the building rather than identify the individual apartments.

Conversely, when examining European examples, we see the development of a theme within any given space or environment over a specific time period, which results in variations which at the same time retain some form of continuity and homogeneity, because the means used to achieve the end are fairly similar.

In 19th Century Paris, after the French Revolution, the need for open space within the confines of the city was recognised. Some redundant quarries were landscaped into naturalistic gardens, bearing the strong influence of the English Country garden, devoid of architectural elements. Also in France, the converse could be seen, in the carefully regimented parterre of Baroque gardens, symbolising man's (sic) total domination over landscape. The mobile gardens of Versaille take versatility to the extreme, with trees in pots which could be arranged as a response to differing ceremonial needs, and then placed in the Orangry when the climate became unsuitable.

Like Paris, the medieval city of Barcelona once suffered from such a lack of open space, that an anti-clerical movement burnt down and destroyed a series of monastries, to create them. The then only open space was a dry river bed, today the Ramblas, which had to remain unused to cope with the random flash floods. In modern day Barcelona, the Ramblas is the main social gathering space accomodating in its linear form activities varying from markets and political demonstrations to ritualised ceremonies.

One of the important aspects of old settlements are the various festivals and holidays that take place in them. Many of them are ceremonies which were part of some previous culture, that had been 'hijacked' by Catholicism. When the Spanish colonisers arrived in Mexico, they found a very advanced culture and a strong religion with certain practises they found distasteful (ie Human sacrifice (sic)). It was at a time when they had just completed the re-conquest of Spain and were quite intolerant of other religions and practises. Their strategy of converting the local population included tearing down existing temples and religious structures, and using the materials to construct enormous churches which had to compete architecturally with the memory of previous architecture and traditions.

The towns that they built were planned on a Colonial basis adhering to strict conventions (like Roman military settlements) of a church and square surrounded by public buildings, and then a simple grid with the remaining town accomodation. The idea of the religious festival and festival of the town became very important. In some ways the bullfight was probably introduced as a means to replace the memory of 'human sacrifices'.

It seems then, that the 'magic' of unplanned architecture, whether it be buildings or not, owes very much to the time continuum. This allows for the dissemination of varying ideas and culture that sometimes takes centuries to gel, and in other cases only exists overnight.

Dennis Radford

When considering unplanned architecture, it might be best to focus on vernacular buildings. I am concerned about the scenographic approach we have to vernacular architecture, seeing just forms and shapes. In America a new perspective has been adopted, mainly because those involved have not been architects.

Traditionally historians have looked at the street patterns and then focusing on the materials and texture, the minute arrangements of spaces, appreciating its development through the layering of time. It's not that this typographical analysis is incorrect, but if we perhaps look at the vernacular from a different perspective and varying viewpoints, we may come to understand it a little better.

For folklorests, culture has a different, and a very specific meaning. It's not what we see, but what we carry in our brain ... the way in which we eat, relationships with others etc., with architecture merely an important aspect of that. We must remember, however, that it's a set of ideas, actions and reciprocal actions, not architecture per se !

On visiting Charleston, one of the first planned settlements in America (circa 1699), I realised that there was another dimension about the place, which no book has ever talked about, nor pictures ever shown. The relationship of culture to climate.

The culture that arrived, brought with it a series of ideas that constituted home, which had to undergo some sort of change, because it arrived in an area, in which the ideas of house and the making of house was no longer appropriate. Mid 18th Century Charleston houses were clearly derived from contemporary English models, which underwent little alteration except to be changed into wood. This home type retained its prestige and form of fine facades and balance, but was gradually adapted as a response to the humid climate. The Palladian box was distorted, and a verandah added.

The subtle variations, developments and alterations in response to need or desire, have infinite variables, which cannot be planned for. It would be impossible to examine the sequential development and identify its inventor. One cannot take as given that culture and climate existing as two entities will always come together. Often prestige, and the form of the culture come into conflict with climatic needs, perhaps best evident in public buildings.

The Charleston house type that I want to focus on, called the single house (circa mid 18th Century), was the one favoured at the time. Called the single house because it was just that, one room wide, so that breezes could pass right through the house. The houses were placed at right angles to the site, always facing east or south-east (east for the breeze, south for the shade).

The extraordinary thing is that once a suitable climatic response had been found, how tenaciously the tradition was pursued, from the most simple to the most grand houses. Even speculators adopted the tradition and form, entrenching the type in lower income areas.

The single house 'sprouted piazzas' (sic), which in a way mirrored the function of the house form, and formalised the outdoor space. In London they would have been row houses joined together, but here, they are split apart, seperated, and translated into wood. The folklorests would ignore the material because it changes, and concentrate on the form, which doesn't.

The possibly unique development of the Charleston house, is that on entering the front door (a piece of Georgian architecture, that has travelled through time, with the help of a pattern book), you find yourself in a tiny courtyard. The house is also clearly differentiated into functions, vertically (service function, reception, private sleeping), with the piazzas extending outwards. By the end of the century, the form begins to battle with the picturesque ideal, with the piazzas getting thinner, vestigal, but still tenaciously hanging on. With the advent of ventilating systems and

air conditioning, the house form and response to climate was eventually abandoned.

The idea of model, should remain an abstract one in the mind. When we talk of type, we talk of something that doesn't really exist, because the model of a building is no particular building, just an idea. Competence, according to Henry Glassi, is what the builder needs to possess in order to turn a set of abstract ideas into reality. It's a set of enabling rules, that has allowed one to move from the abstract to the concrete, and that is what I've been looking at, because over 200 years, hundreds of different builders have had the same set of ideas in their minds.

The Politics of Post-Modern Culture

Lindsay Bremner

If one accepts that it is possible to generalise the contention of the Italian Marxist, Gramsci, that the modern European state is possible not only because there is a political apparatus (army, police force, bureaucracy), but because there is a civil, secular and nonecclesiastical society making the state possible, filling the state with economic, cultural, social and intellectual production, and that "everything is political, even philosophy and philosophies" (1971), the question arises as to the political nature of the positions adopted in post modern culture, specifically, post modern architectural culture.

While the extent of this debate is laid out in an excellent collection of writings, "Postmodern Culture" ed. Hal Foster (1985), this paper attempts to begin to define the politics of architectural practise, as proposed by the present post modern debate.

Post Modernism, in whatever form, has risen out of the fall of the Modern myths of progress and mastery; the myths that society steadily progressing, inventing new forms, and through technical innovation, mastering the world. (The everpresent threat of nuclear annihilation represents the end of that dream).

It has certain very clearly articualted positions, some of which are more critical than others, some of which are reactionary and cosmetic and celebrate the status quo, others which try to resist and interfere structurally in the order of contemporary life.

Within a historical-materialist position, post modernism can be defined as the relatively autonomous new formal features of culture that are emerging in conjunction with a new type of social life and new economic order. This is euphamistically called post-industrial, consumer, or media society. It corresponds with the economic order known as multi-national capitalism, which can be traced back to the post war boom in the USA in the 1940's. By the 1960's, this new international neo-colonial order, an economic imperialism, was reasonably established, and at the same time swept and shaken by its internal contradictions (1). The emergence of the post modern sensibility is closely linked with this (2). In this context, post modern culture can be seen to represent the inner truth of the newly emergent social order of late capitalism (3).

At present, there are probably two positions in place within post modern cultural politics - the one is preoccupied with style and history and operates ideologically, aligning itself with neo-conservative politics; the other is derived from structural linguistic theory and attempts to be critical. It is within these divisions that I wish to discuss various positions and practices.

1. Stylisitic Postmodernism

This is perhaps the most familiar, widespread and easily assimable practice of post modernism - the decoration of the shed in a campy, classical order (Charles Moore and Robert Stern); the return to narrative, ornament and the figure (Michael Graves and Hans Hollein); eclectic historicism in which older and newer styles are marketed, retooled and recycled (4). Thus postmodernism is defined mostly in terms of style and sustained by the arguements of a classic humanism.

I wonder why this architecture is called postmodernism at all, and ask myself whether it argues in any serious way with modernism (5). As we have the confessions of one of modernism's most serious ex-initiates, Michael Graves, to go by, this is usually taken for granted. However, all architecture, reduced to a visual dimension, preoccupied with style, does not present an arguement against anything; it simply assumes the form of modernism's old pre- and anti- opponents in order to make friends with the market place and the public. It errupts in crisis on an aesthetic level in order to preserve its continued circulation as commodity (6).

This is more than stylistic programme; it represents a cultural politics, which acts as follows:"*Modern culture, modern architecture is bad; look at its social effects. Blow it up, then we will be free to start again, and make*

real places for people to be happy in."

This way of operating sees culture as the cause of social ills and therefore the possible cure. Modernism becomes cultural abstraction, divorced from its corresponding socio-economic base; once the signs of this historic mistake are deleted, it is assumed that we will be able to impose lost traditions on the present and make society human again. All the values modernism opposed will be reinstated. Unfortunately, the present, in its contradictions, is far beyond such humanist pieties. It is not culture, but capital and bureaucratic power, which have eroded social forms. By this confusion of structural causality, symptoms are taken for diseases, and treated cosmetically (7),

However, cosmetics conceal more than they resolve. For example. let us look at the current doctrine and practise of contextualism.

Contextualism seeks to redress the ruptures of modernism, and restore continuity with historical or popular forms. No one can deny the catastrophe of modern architectural utopias. They have fragmented and rent, rather than transformed the social fabric. Their new cities have, till now, proved socially bankrupt (eg: Brazilia, Chandigarh).

The reaction of contextualism to this crisis reveals the same confusion of structural causality described above. Contemporary urban development has no continuity or cohesion. Based on zoning and the dictates of political ecomomy, the built environment has been organised into monolithic, disparate segments. Within these islands, free enterprise and private property promote the principles of competitive liberty. Any programme which attempts to heal the ruptures of the resulting fabric by recourse to stylistic device must simply be acting to condition and conceal. Reconciled to our Las Vegases, we are conditioned to its delerium, while its causes are concealed. Perhaps only Leon Krier senses the impossibility of his position and refuses to build. Unfortunately the less astute do it for him.

Central to this postmodern arguement is the priviledged position attributed to style and the so-called return to history.

It reduces historical periods to ruling class styles, a history of victors, and then appropriates them. This is argued as the redemption of history. However, the fragmentation and partial reproduction of history does not redeem it in any way. It threatens the very ability to think historically. If historic form can be abstracted and then glued together, history loses its temporal significance and collapses onto the chaotic and disintegrated surface of the present.

The evacuation of material and historic sense from style means that postmodernism constructs its images by pastiche. It expresses itself through stereotypical references to past languages. The modern practice of critical collage becomes a device, an instrumental trick, by which to assemble the stylistic masks of history. Pastiche becomes the style of postmodernism. Unable to focus on the present, we cannot achieve representations of current experience, except through the mechanisms of historic amnesia.

This is an indictment of consumer capitalism itself. It generates a society incapable of dealing with time or history except in terms of planned obscolescence. The media relegates recent historical experience into the past as quickly as possible - Kennedy's death 20 years ago is as distant as Newton watching the apple fall - as distant as its last TV appearance.

In this pastiche is posited the return of the architect as author and originator of a work, as the expressive origin of meaning. When the 19th century eclectic architects used historical styles, they did so in order to give expression to a particular meaning which was seen to be immenent to style eg: Schinkel used the Classical style to give glory to the newly emerging Prussian State; country villas were designed in the Picturesque tradition as the most appropriate form for the enjoyment of country life. Today's use of history represents a flight from such collective meaning and its recuperation in the subject him/herself eg: the Keystone motif in Michael Grave's work seems to be invested with enormous meaning - what one asks ? Devoid of structural necessity, its meaning has to be assumed to lie in its significance to the author himself. Behind the work lies the inviolate silence of the author.

Thus individuality, the inevitable production of the bureaucratic state is reconstituted (8) In the age of corporate capitalism, of bureaucracies, of the organisation man (sic), this must be seen as ideological necessity, the fabrication of power (9). The more impersonal, remote and centralised power becomes in modern democracies, the more individuality is rendered productive.

This postmodern practise serves, in the end, to beautify reactionary politics. It is cosmetic, not structural, and in most cases, conceals rather than exposes contradictions.

2) Structural Postmodernism

Structural Linguistics, the science of Semiology, as developed this century, first by Ferdinand de Saussure, then by others - Roman Jacobson, Roland Barthes, Julis Kristeva etc. is the study of sign systems within society. Of these, the primary system is language. Language is comprised of entities called signs, each composed of three parts - a sign image and a concept (signifier (S), and signified (@) eg: apple, (word) and apple, (concept or idea)). This couple then constitute a second level of signifier in relation to the referent, the real object, apple in the real world. Signs used in language are arbitrary or unfixed; there is no "natural" relationship between signifier (S), signified (@) and referent (R). These relationships are convention based. A linguistic system is a conventional, historically derived mode of cultural communication. Any social code ie: any mode of convention by which a society communicates and perpetuates coherence. Thus architecture, in organising the relationships of the built environment operates as a linguistic system, a set of signs within society.

In orthodox structuralism, the relationship between signifier, signified and referent is assumed to be stable. Language communicates reality unambiguously according to fixed, invariant structures.

However, "post-structural" theory does not assume this stable relationship between the word, the concept and the thing. Language does not merely reflect reality, it shapes reality. It determines the habits of thought and perception by which we codify the flow of experience in a certain way. The real out there only exists through the codes and conventions by which we perceive it. These conventions establish order. Post structural practice seeks to uncover and unsettle the interconnections between order, power and knowledge (signifier, signified and referent), in social conventions (11)

The way it does this is through the technique of deconstruction. This is the process by which the presumably stable relationship between language and reality is dismantled. Words are disconnected as signifier and taken out of their stable significatory sequence. The traditional bonds which have structured meaning in language are seen to have been destabilised in the same way that advertising, TV and other mass media, the growth of highways and automobile culture and the new types of consumption have constituted radical breaks with pre-war society. The search for meaning (the signified), is relinquished altogether by postmodern practise which alignes itself with post structural theory, and it concentrates instead on exploring the logic or structure of social systems ie: the structure or syntax of representational systems (signifiers). The work of Bernard Tschumi or Daniel Liebeskind constitute research of this kind. In the latter, architectural drawing, a convention developed to represent reality, is drained of its representational content. Drawing, the signifier, is released from any syntactic, convention based regualtion, in an attempt to redefine the limits of architecture from beyond itself. It is hoped that new systems of relationships between the elements of the architectural sign, (new syntactic structures) will thus be generated.

This postmodern practice does not propose a return to matters of style. It sees style as cultural code, as conceptual redundancy (12).

Reality is seen as the fictitious production of the way society codifies and represents it. The old distinctions between reality, the house as built, and reality, the drawing, communicative link between the conceptual and the actual, are dissolved. Eisenman's House 10 operates on these assumptions. Eisenman deconstructs architecture by its own methods. He makes a mode of architectural representation, the axo, the architectural object itself. His architecture becomes a critical statement as

to the representationalnature of reality. We cannot make anything real. We can only construct our representations of reality.

This position is profoundly anti-humanist. It sees individuality, the basis of humanist thought, as fiction. Our perception of ourselves as individuals is merely a means by which we codify ourselves in relation to society's conventions, and by which society orders our behaviour. It is the mechanism by which impersonal underlying structures ordering society are rendered productive. We are the inverse representations of societies codes (13). Individuality is an instrumental effect of the means by which bureaucratic states retain power.

This then constitutes the essence of structural postmodernism's arguement with modernism. As the architectural object is redefined, so the subject, the person is too. The modernist work was an aesthetic, symbolic whole, sealed by origin (the author), and end (a represented realiy or a transcendent meaning). It was constructed as the stable unit of signifier, signified and referent, of form and content, with mythical, symbolic, universal identity, synthesised in the person of the individual designer.

Structural postmodernism proposes a new conception of the architectural artifact. Architecture is seen as text, not work; the gap between signifier and signified is stressed, in order to bring the signifier and referent into a new relationship. The text is an a-aesthetic, multi-dimensional space, in which a number of writings, none of them original, can blend and clash. An example of this process, is Bernard Tschumi's winning scheme for "A Park for the 21st Century" Competition (14), being built in Paris at present. Here space is demarcated by regulation, over the site, structured by the overlay of a Cartesian grid. Two unoriginal and seemingly unrelated orders are used to organise space.

Thus postmodernism is posed against a monolithically self referential and autonomous practice of architecture. It concerns itself with textural impurity, not formal purity. It sees the architectural object and practice as social code, not autonomous work, able to be deconstructed in order to set up new relations of possibility for the activity of architecture. In this way, the interconnection between power and knowledge can be exposed and the way paved for a structural, rather than a cosmetic understanding of architecture's operation revealed (15).

In deconstruction then, we have a practice both aesthetically and politically so different from pastiche; the critique of representation so different from the recycling of images. However, they both decentre the subject, disentrench representation, and erode a sense of history, one through the notion of textuality, the other through the celebration of style. One explores the language of architecture critically, the other exploits it instrumentally, but both affect its breakdown.

In looking at postmodernism, one needs to get beyond the encyclopedic activity of simply labelling, classifying and catelogueing, in order to address the questions that it raises - the status of the subject and his(sic) language, of history and its representations. The symptoms of the schitzophrenic collapse of the subject and historical narrativity need to be addressed with the rigour of critique, in order to clarify the broader political implications of cultural practise. What I have called "structural postmodernism" has gone a small way towards achieving this.

FOOTNOTES

1. For an example of a discussion on neo-colonialsm see K.Nkrumah (1965).

2. The relationship between neo-colonial economic order and postmodern culture has not yet, to my knowledge been studied, and would merit a separate investigation in itself.

3. This view of culture sees it to function ideologically, as opposed to critically. It serves to conceal the contradictions operating in society by constructing the appearance of unity within it. Culture is seen as an integral part of ideological practice. It works to make invisible and inconceivable the affilitations that exist between the world of individual existence and the world of the cycle of production, by means of its relatively autonomous formal features. A critical culture would seek to represent the inner contradictions as opposed to the inner truths of a social order.

4. For an elaboration of similar characteristics in postmodern art, see Hal foster (1984).

5. See L.Bremner (1987).

6. ibid

7. Significant, this approach, coming out of America, which has always favoured therapy over analysis.

8. See Michel Foucalt (1977) for a discussion of the relationship between individuality and the mechanisms of power he calls "discipline".

9. The individual is the necessary correlate of power and knowledge in bureaucratic states. See Michel Foucalt (1977, p194).

10. See eg: Levi-Strauss (1966,1969, 1970).

11. This might be seen to be continuing the project of the avant-garde, as begun in the early half of this century. See L. Bremner (1987).

12. Style is a conceptual category, existing outside of objects, which serve as examples of its characteristics.

13. See Michel Foucalt-(1977) as discussed in Footnote 8.

14. See Bernard Tschumi (1984) for a discription of this project.

15. See Michel Foucalt (1970, 1972, 1977).

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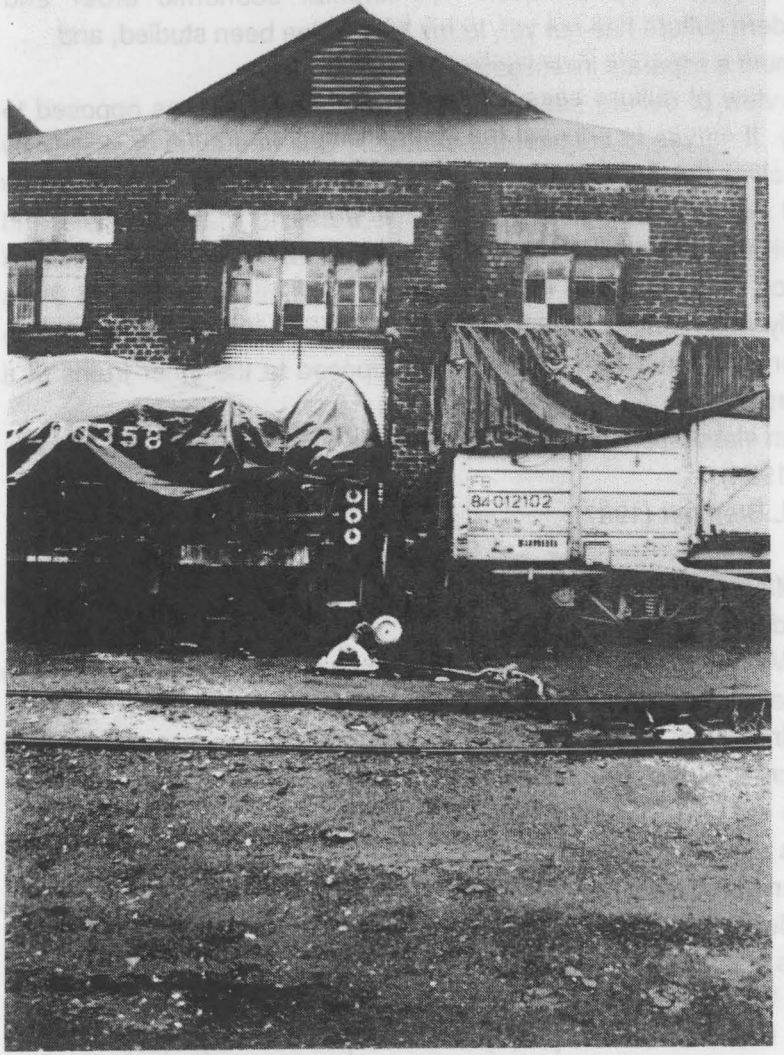
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SCHIZO JOHANNES BURG AT 9AM

RENIC JOBURG another way of looking at things

SCHIZOPHRENIC JOHANNESBURG the abstract aspect of the city

SCHIZO SCHIZ WILHELM· IVAN KADEY

THE 19C & THE INSTANT CITY
DENNIS RADFORD

EYE LEVEL VIEW OF JHB
ALAN MABIN

CONDITIONS ON THE FACTORY FLOOR AT 1400
TECHNICAL ADVICE GROUP & COLIN RICHARDS

1530 TEA AGAIN
ALL THIS TEA DRINKING

IMAGERY OF THE MOVIE 1600 1600
METROPOLIS & OTHER RELATED MOVIES
MALCOLM PURKEY ..... DRAMA DEPT.
JEFF ZERBST ..... RELIGIOUS STUDIES
STANLEY PESKIN ..... ENGLISH DEPT.

ALTERNATIVELY
UNGUIDED CITY TOURS
DIAGONAL STR.
NEWTON
HILLBROW
YEOVILLE

1930 DINNER/ DELEGATION MEETINGS



THE KEYNOTE ADDRESS
AT 2030
PEDRO GUEDES
THE INDUSTRIAL MIND

AT 2200
IN THE PLANETARIUM
HALLEYS COMET
TICKETS AT DOOR
R2.00

THE CITY DAY
INDUSTRIAL

DAY 2
APRIL 1 TUES

Tents, Tins Temples and Tea.

Dennis Radford

This talk concerns itself with the origins of Johannesburg, and the influence of the industrialising societies during the 19th Century on their colonies, and how these influences contributed to making very different forms of cities from the original ones.

The best way to discover ones origins is by looking at the place one is in. The first part of my talk is about the tents and tin temples, with the tea representing Anglo Saxon culture.

The 19th Century is regarded as the age of steam, but in fact, more importantly for us, it was also the age of iron. The various ways in which iron was used, both changed and made cities possible, ..types of cities that were not possible before that time.

From early drawings one can see that Johannesburg was laid out in a fairly standardised and prototypical way, from which most South African cities evolved - a non-directional grid with uniform street widths. The one problem with Johannesburg's grid was that it was set down on either side of the goldmines, and with the discovery that gold was both deeper down and further South the grids had to be joined ... but with difficulty, resulting with a kink in the roads running through the length of Johannesburg.

Iron first appeared in Johannesburg in the corrugated form. It proved to be a marvelous material because it could take on so many of the traditional roles that other materials had done before, assuming virtually any form and being used for roofs and walls. It was light and easily transportable, which proved to be a good thing, considering the difficulty in the early days of opening up the South African hinterland. Corrugated iron was undoubtedly one of the great advances of the 19th Century. It was much better than the original tent structures, and it was the corrugated overlay that moved the development of Johannesburg into its next phase.

Historians have identified three phases in the development of Johannesburg. First was the tent town, next the corrugated iron city and finally the metamorphosis into brick and mortar. I want to stay with that intermediate stage, which lasted probably for about ten years, to give you an idea of the rapid change of the town during that time. This is where the idea of an instant city comes from.

Corrugated iron was produced in varying lengths but only one width, which facilitated its adaptability and use in varying types of buildings. The young town broke out of its grid soon after its founding, and in 1899 (3 years after the town being founded), suburbs were laid out along the ridge towards what is now Eastgate.

The early shops dating from the late 1880's or early 1890's, soon became quite large. The buildings were of the simplest and most direct form, basically sheds, which enclosed the maximum amount of space possible with the lightest of coverings. Even the smaller buildings had tinkered iron wired mirrors to add to their quality. The whole town had a wonderfully makeshift air to it, which of course was appropriate considering its origins.

The shopfronts were used to display the goods for sale, prefabricated products of an indusrialised age, which helped to create an identity for the shop. In this way, the sheds became highly deocrated, with bits and pieces simply clipped on. Even the most august buildings in this tiny town were of corrugated iron, including the original public library which was pulled down in about 1893.

The interesting aspect of corrugated iron was that the material was re-usable. So as the town became more established, the inner circle of buildings were converted to brick, whilst the periphery buildings were still constructed in iron.

Because of the enormous versatilty of corrugated iron, the city had a vast range of facilities that it wouldn't have had otherwise, including a number of home comforts that wouldn't have been realisable.

By the 1890's the city began its transformation into the more permanent brick and mortar form. Corrugated iron was only one aspect of

the material, "the bread and butter aspect", the other was cast iron. Cast iron allowed the city to have a more civilised appearance. To the Victorians, this meant having a 'crust' of decoration. This exuberant character was achieved by fixing cast iron elements onto very simple, mundane brick boxes.

The wholesale use of verandahs was something which developed in the 19th Century. It allowed the buildings in the town to accomodate themselves to the African climate, in the ways that they couldn't do otherwise. (If you think of the large plate glass shop windows without some sort of cover, it would probably have been disasterous to the goods on display).

The use of cast iron wasn't just confined to low buildings, as you could also use it as a covering to project the character of the building (Stuttafords, one of the great chain of departmental stores in the late 19th Century best demonstrates this). The buildings got bigger and bigger as they went along, with their character clearly derived from the quality of the cast iron.

There were innumerable ways in which the instant town collected its character, one being that the buildings were virtually mass produced and brought from elsewhere. The material was brought from the Cape via oxwagons before the rail link was established, adding to the extra-ordinary difficulties suffered in the construction of the city.

Johannesburg was possibly the highpoint of the 19th Century instant city locally, but the Victorians had had plenty of pracise before that. The one settlement just prior to Johannesburg, which I would call South Africa's first instant town rather than city,was Kimberley, clearly another tin town, incorporating tin sheds, tin houses and prefabricated houses.

At present we are undergoing some sort of distancy from our origins, also making up myths about early Johannesburg (eg: Gold Reef City). Most of our cities, certainly Kimberley and Johannesburg, started out as squatter camps.

For a brief while, corrugated iron met the aspiration of the early colonisers, as demonstrated by the Lt. Governor's residence in early Kimberley, which was a sort of minature Buckingham Palace. Another instant settlement was Pilgrim's Rest, which has now undergone dissection, been skinned and given back to us in another form.

Johanesburg, Kimberley and Pilgrim's Rest are common manifestations of instant cities, but another type developed because of the fast expansion of our seaport cities. An 1880 view of East London, shows a number of wood and iron buildings within the already established fabric of the city. During the early 1900's about 25-30% of the recorded housing stock in a number of our cities was constructed of iron and wood. We still have fragments of those cities left with us, in our old mining settlements. An unplanned series of houses still exists in Roodepoort, battered but unchanged. The intention is to preserve them because they are not only an historical fragment, but also part of Roodepoort's townplan predating the grid.

The pedigree of the Instant City.

The parts for the instant city were prefabricated in places like Sheffield, and the cities themselves were spinoffs from the industrialising nations. They were able to procude vast quantities of what we would call standard catalogue items, quite a lot not intended for the use they eventually assumed outside of Britain. It was however, the ability to mass produce these items that allowed the instant cities to come into existence, and it was because of the developed technology and expertise that allowed these cities to evolve so rapidly.

The development of the technology could largely be attributed to the Victorian's great obsession for preserving tropical plants incongenial environments, which was publicised hand in hand with the idea of large clear spans and the use of glass, with the erection of Joseph Paxton's Crystal Palace.

This particular infatuation with pre-fabricated elements was again demonstrated in 1852, when Prince Albert had a corrugated iron Ballroom erected at Balmoral.

The most distinctive use of decorative cast iron was to give buildings character, and was initially evolved for domestic consumption within

Britain itself. MacFarlane published a catalogue in which he demonstrated how an ordinary building could obtain the right cosmopolitan character with the fixing onto it, the various cast iron products available. He also showed that sub-components of the system were available eg:complete shop fronts. In the Colonies shop-fronts were difficult to solve with the traditional technologies and vernacular materials, but now, one could import the whole thing, pop it into the brick frame and set up business as if in Bond Street London.

There were no rules that had to be strictly adhered to, so one could mix and match elements from the catalogues and produce the character required, through varying the number or types of components used.

The Victorians were obsessed with monuments, celebrating anything vaguely historic but particulary Queen Victoria's Jubilees. This they could do very quickly. They could send to MacFarlane's, who would personalise one of the standard catalogued monuments for them, simply by adding the coat of arms and name of the city, and in a flash they would have an instant monument to furnish their city, instant or otherwise.

In 1879, MacFarlane patented a complete shopping centre. The idea was that you no longer even had to design the building, but could call for one, which in the context of an instant city would allow you to obtain the right amount of sophistication from the start. in fact, the Old Arcade in Johannesburg, was one of the few complete replicas of the drawing in MacFarlane's Catalogue. These buildings were not without their particular hazards. When the parts for the Arcade arrived, almost all the glass was broken, and the builders had to wait for the next steamer to bring replacements.

The Old Arcade brings us back to Johannesburg, where we started from. This presentation attempted to show you what is possible, using prefabricated elements in the way they were not intended to be, which in terms of today, shows that some wonderful, unplanned spinoffs might arise from our 'spaceship' types of technology.

An eye-level view of Johannesburg

Keith Beavon

Johannesburg has grown to be an industrial city, - one with a world status in terms of size, magnificence and problems. It is no different in many ways to other cities of the world. However, it has its antecedents essentially in Britain.

The people who first came to Johannesburg and populated the city were to a large extent drawn from Britain, but shortly thereafter, more indigenous people arrived and also tried to find a place in the city. A number of serious conflicts then arose, not necessarily bloody, but nevertheless conflicts which moulded the positioning of the people within the city.

The industrial city emerged during the 19th Century and had for all intents and purposes its greatest manifestations in Europe, and more particularly in Britain. By 1900, Britain had emerged as the first industrial and urban nation of the world.

Today many nations are urbanised. By this it is meant that the population living in the cities is more than 50% of the total population, and by cities it is meant that 100 000 or more people live there.

What did Britain really look like at the turn of the century? Clearly it didn't look too good at all. Even by the middle of the 20th Century the areas of the city housing those people were still not too savoury or attractive.

A well known author, George Orwell, was commissioned in 1937 by The New Left Book Club to do a study of working class conditions in Britain. The book, 'The Road to Wigan Pier' depicts quite accurately what working class Britain was like in the 1930's. In the first edition there are a series of illustrations , one of which shows the overcrowded conditions of a whole family living in one room. Today not many people would associate that with industrial Britain, but it's something which is characteristic of many other parts of the world where industrialisation has proceeded at one pace and the planning and organisation of residential accomodation at a much slower pace.

The temporary accomodation created in many parts of Britain when slum clearance was introduced bears some resemblance to the South African approach. The temporary accomodation which themselves were highly suspect and not necessarily well designed, remained for many years the refuge for people who had been moved by the local authorities our of the city (in this case the city of Newcastle) under conditions of slum clearance. One would assume that the new houses would be of a better class, but to all intents and effects, they were nothing better than repeated pattern cases with malthoid roofs to provide shelter from the harsh English winter climate.

In 1937 people chose to live in gypsy caravans and shacks rather than the houses into which they had been moved during the great slum clearances, as the former were cheaper. Other people found themselves caught up in the tenements of the large cities.

Living conditions in these houses, such as Limehouse on the East Side of London were absolutely appalling. Large numbers of people crammed into single rooms, cooking, eating, and washing etc. in one room.

Those were some examples of conditions that prevailed in Britain in 1937 - a well established industrial country by that time. What was the situation in this part of the world, bearing in mind that the city of Johannesburg began to develop towards the end of the 19th Century and early part of this Century ?

Johannesburg's early plan is a remarkable piece of townplanning with the laying out of the Rantjieslaagte, the uitvalgrond tussen a heel klomp plase, Braamfontein, Doornfontein and Turfontein. The uitvalgrond was the piece left over that was magnanimously given to the citizens of Johannesburg by Paul Kruger.

Very soon it expanded beyond that triangle of land (you can still pick it out in the centre of Johannesburg today), and grew into the surrounding farmlands - Turffontein, Doornfontein, and Braamfrontein in particular.

So the city began to expand very rapidly at a very early stage, largely because it was fueled by that rich mineral under the ground, which drew thousands of people from all over the world to Johannesburg. These included people from the industrialised nations who brought with them the technology for mining, and the working people who were increasingly drawn from the surrounding countryside.

By 1889, the semblances of a permanent establishment were being built up. Brick and mortar buildings were already well established by the turn of the Century. Trams were a regular feature - Johannesburg was taking on the stature of a city of substance.

The Market Square, around 1900, became literally that - a market place where people met and exchanged goods informally. One could shop in the formal buildings as well and also one could get insurance and medical services - all the trappings that go with a modern industrial city.

Other people working in the city, trying to eke out a living, didn't enjoy the same level of privileges of space and jobs which one section of the population of Johannesburg did. These people were some of the hawkers, selling literally from barrows, on Market Square.

Why were they doing this and not something else? One of the reasons which studies have now brought to light, is that these people were opting out of working class life. They didn't want to work on the mines or in the newly emerging industries of the Witwatersrand. They were going their own way and moving into the only niche which was available to them in the free enterprise system of shopkeeping. Even at that time these people were not allowed to own shops in the city centre, and thus took up this oppurtunity of earning an informal income. Others who took up informal earning activities were the rickshaws and those who took up even less of salubrious occupations of washing the linen in the city. (1)

Washing in the Braamfontein Spruit initially taken by washermen, the Amazulu, was eclipsed by the steam laundries and eventually disappeared. Black washerwomen took over the duties in a slightly different set of organisations ie: as domestic servants in the rapidly developing suburbs.

Where did these people who were working on the periphery of the city live ? In part thay lived in those working class suburbs east and west of the Johannesburg city centre, but the conditions under which they lived and the reasons why they lived there are not as well known as they should be.

An 1897 map of Johannesburg whould give you some idea of the way in which the city was laid out and grew in an east-west direction between the mining lands of the south and the ridges of the north.

The so-called brick fields and Burgersdorp to the west were the 'coolie' and 'kaffir' locations. (These terms which are offensive are useful only in that they were the terms used at the turn of the century to describe a part of the city and the citizens who lived there). Those areas were not very attractive ones and the 'coolie' location was an area where the health controls were not being put into practise, where people were crammed in, in order to find a place to live (where you lived in Johannesburg was even at that time fairly strictly controlled).

In 1903/4 Bubonic plague broke out in the 'coolie' location and a corrugated iron fence was erected around the location straight away. The people were moved out and the simple sanitising practise of putting a match to the whole place, was utilised to kill the bugs. The location was surrounded by the local police and infantry who made sure it would be burnt down. And sure enough it was completely destroyed.

And the people living there? They were moved to other areas of the city. Some of them into nearby locations which were to become present day Pageview and Vrededorp, others moved further south (many racial groups lived in the 'coolie' location, including blacks). The blacks , as opposed to the Indians, were moved some 20km south of Johannesburg - given the technology of the time in terms of transportation, this was a long way away. Their shacks and corrugated iron were moved to a place called Klipspruit were they rebuilt their homes, together with some tents and lean-to's that were provided. A railway line was eventually built to facilitate movement to and from town, but even so, most of the workers found that they had to live in town for a

week, camping wherever they could, because they couldn't do the 40km daily round trip.

In addition these people had been moved out of Johannesburg to the periphery of the town under the guise of public health regulations. It is therefore significant that they were placed next to an operating sewage works - the Klipspruit Sewage Works, which ironically was operating inefficiently. The Works was leaking and there were pools of sludge around the township, which needless to say, attracted thousands of flies. The effect of spreading disease from the sludge pools to the people meant that 33,4 people out of every thousand, died of gastroenteritis. But more alarmingly was the fact that infant mortality in the Klipspruit township reached the level of 958 per thousand. Nine hundred and fifty eight per 1 000 infants were dying in this township which had been established on the basis of improved health conditions.

The employers of black labour argued for a township close by because of the transport difficulties. In order to overcome this demand, housing policy was relaxed and in the 1920's a township called Western Native Township was established for black working class people. This meant that people who worked in the city would now no longer have to live in Klipspruit and travel the 40km's a day to earn a living. Black working class people were now accommodated in Western Native township, which was established on a levelled refuse pit.The bulldozers flattened the rubbish of the city and the authorities then said there's a piece of land, you can build a township there.

Even though the township was nearer to town than Klipspruit was, people were still located on the periphery of the city. A transport problem still existed as workers still needed to get to where their work was - where most of the white people, their employers, lived.

People moved into backyards, into sheds, warehouses etc. to camp during the course of the week in order to be near their place of work. Eventually this was condoned by permits, issued by the City Council, allowing people to live temporarily in certain parts of the white city. The net result was the emergence of slumyards.

The emergence of slum conditions within the matrix of the residential part of the city or be it white working class suburbs, was to lead to the deterioration of neighbouring properties. People decided that they didn't want to live next to slum conditions and so put their properties onto the market and moved out. The 'slum lords', as opposed to the rand lords, moved in and took over those properties, leading to a process of invasion and succession of middle to even upper class residential areas in Jeppestown. (2)

A decison was taken to clear the slums, to make them respectable again, the tendency being to move people out of those slumyards of the suburbs which were closer to upper income parts of the city. People threatened with removal to the periphery of the city fought to maintain a living place close to the city centre. These people simply moved from one slumyard to the next, eventually concentrating on the western edge of the city in the vicinity of Pageview and Vrededorp. Here conditions rapidly deteriorated.

In the early 1950's, people were removed from the last vestiges of slumyards, out of Sophiatown and into the south western part of Johannesburg.In Soweto, very elementary working class housing was provided for rental. The four roomed 51/9 was the model house used, it sounded quite attractive but in reality was not very appealing.

The working class people once again on the periphery of the city now had to journey in to the city and start work at an early hour. To get to the factory gates at 7am in the morning, workers had to get up at 3/4am, this often meant no time for breakfast - that is if one had the food.

An enterprising group of people began to operate what had become known as the coffee carts of Johannesburg, in order to feed the hungry people coming to work. What started as small mobile stalls placed outside the factory gates, eventually became more substantial. They no longer had wheels, and were semi-permanent structures outside the factory gates, serving the purpose of feeding the working class people.

The City Council and authorities tolerated this for a while and then in the post 1940 period set about a campaign of actively getting rid of these

stalls because they were regarded as obnoxious and unhealthy.

You may not remember Braamfontein before glass and concrete became a predominant mode of construction, but I remember it as a series of row houses up until the 1960's. It's present form is as a result of a fairly recent transformation.

Perhaps the illustration of Braamfontein can illustrated briefly how some of the changes which have occured in South African cities, and Johannesburg in particular, are familiar and carry echoes of similar kinds of change that have taken place early in our history. How the construction of temporary accomodation, with the familiar, available and easily transportable media of corrugated iron, has been carried on through the squatter settlements of Johannesburg, most prominent perhaps in the 1940's and then to today, perhaps more recognisable in cities like Cape Town and Port Elizabeth.

Other examples - slum clearance, that is slum clearance throughout the history of Johannesburg, at the turn of the Century, of the 1920's and perhaps the most significant, slum clearance in the 1930's. Interesting point about that one is that slums were pretty mixed - Johannesburg has a history of slum clearance. In the 1930's the whites were taken from the mixed slum of Doornfontein and settled in Jan Hofmeyer, the coloureds (taken from the same slumyards) were split between middle class and working class housing schemes, and the africans (also from the same slumyards) were settled in Orlando, one of the early parts of Soweto. This process was virtually repeated in the 1950's.

What about the slums that have been created since then? It seems to be one of the main topics on the agenda, of looking for appropriate materials, for new styles and for new modes of construction, to improve the quality of life in these settlements that have been created in and around South African cities. How do we deal with the slums that our generation has been responsible for over the last couple of decades.

Slum clearance and the changing of slum conditions are two different concepts. If you want to simply clear slums, then certainly a bulldozer is one way of doing it. You pay a price though. simply moving people out and letting them go somewhere else, (eg: Situating them on the site of a disused sewerage farm in days gone by), results in a different kind of slum.

In the case of District 6 (Cape Town), the famous 'so called slum' was flattened and the people simply removed to other parts of the city. The urban renewal approach was to take the people from the so-called slum conditions, move them into temporary but good alternative housing, while renovating the neighbourhood in which they had lived. hopefully to move all of those people back into the newly renovated neighbourhood, so that the fabric and structure of their society which they had generated in that neighbourhood continues, but is now housed in better conditions.

What happened in the case of District 6 and in several other cases around Joahnnesburg is that the social fabric, the cultural contacts and the community life have all been destroyed by the total removal of the community and its scattering across the periphery. This type of destructive process has brought on tremendous resentment which will live for a long period of time. One is moving in the right direction if one can renovate the area in which the people live and then allow them ti move back, maintaining their social fabric.

Q: Is it necessary to move them? Can't renovation take place like they did in other suburbs ?

A: It depends on how bad the slum conditions are and to what extent you have to destroy buildings in order to construct a new

environment.The two key aspects that have arisen, and have been treated most ruthlessly in changes to the residential fabric of South African cities are:

1. The question of who is going to pay. This has never really been addressed in any democratic fashion, and right now it has become a national policy that the users must pay. Of the users about 40% are employed, so how the users are to pay remains unclear.

2. Who's going to decide, to plan, to choose designs, to work together in that area? Even if you move away from bulldozing the squatter camp into planning a fantastic quality of housing, it still may never address the critical

needs of the community because it still destroys the community life that people had previously enjoyed and the social fabric people had lived in for many years. It doesn't matter if an architect comes up with, what seems to be some apparently neutral external audience, a marvelous solution. It may yet be something which is entirely rejected.

Two examples of what I'm saying: One is the case of the Western Native township, which in the mid-1960's after the African people had been moved out, became a so-called coloured group area. The housing has been supposedly temporarily used, by the people in that township ever since. That area is now undergoing some sort of renewal, but the critical issue of that area has become the fact that the planning has been done without consultation with the people concerned.

Another illustration of this phenomena is in the squatter areas throughout the country where people have made their own choice and have done their own thing, their architecture reflecting their conditions. The power lies in the hands of agencies to decide; whether they'll occur, what services people will or will not get and what kind of materials will be acceptable, what new standard should be introduced, whether or not dwellings will be allowed to remain and finally to decide if there's an upgrading scheme, which of the buildings will be allowed to remain and which will go.

The political conflict thats happening in some of the squatter areas and adjacent townships in Port Elizabeth and Uitenhage, (eg: Langa), is exactly about this question. These settlements are in advanced stages of decay, associated with large squatter areas, but the point is that the people themselves want to decide what happens to their areas whereas they don't officially/legally have power to make those decisions.

To conclude, its situations like these that lead to the 'unrest' and resulting massacres which we read about in the daily press (ps; that we used to read about in the press), and points to the urgency and need with which a new and a progressive attitude to urban planning and development needs to be employed.

1. Charles van Onselen's 2 volume Social History of South Africa, **New Babylon** and **New Ninevah**, is a well documented piece looking into the early working class of Johannesburg, and is well worth reading for more information.

2. Perhaps the most famous of all slumyards, in terms of what has been written about them is Rooiyard Hellsman's book on the slumyards of Johannesburg.

Conditions on the factory floor

Technical Advice Group (TAG)

The reason we've been asked to talk is that the role TAG plays can be seen as analogous to the one architects could play, whilst trying to address the dichotemy which exists, when the users of a specific place are not the same people who commissioned the architect to design the environment . By extension, addressing the problem as to whom should architecture service, those who inhabit and use the environment, or those who provide the capital. Possibly one of the most difficult contradicions inherent in the practise of architecture.

It would possibly be best to structure the talk in the following way;

Introduction to TAG, what is does and the services offered.

Workers views of their factories, specific hazards that often occur, how they can be averted and how workers address their problems once identified and what they do about them.

Finally, ways in which architects could influence the design of factories.

TAG started off about 4 years ago with a bunch of engineers and scientists who felt that they had skills which they would like to use in a progressive way, which were difficult for us to use in the working environment in which we found ourselves. Tied to that, was the imbalance of power that we saw in factories and in the work places. On the one hand you have management who have all the technical skills, everything loaded in their favour for controlling the work process, the people in the factory and the technical issues around the work. They really determine what's happening in the work process and how the job gets done.

Legislation is invariably written by industry, although it is sourced from the government. The iput is mainly one which comes from industry through various technical committees and consultants, reflecting managements interests in the legislation.

The traditional relations of the whole situation are also very important. Until 3 or 4 years ago, the thought of the union or workers having something to say about safety in the work place was unheard of and those issues were seen as being strictly management perogatives.

TAG started off from that position and has now developed to a stage where we work in a number of areas. We tend to work with unions mostly and with other support groups, in health paticularly, but have also worked with the architecturally based Planact group, whilst also participating in the formulating of regulations by the Department of Manpower and the Department of Mineral Resources and Energy Affairs.

The procedure is that the government mining engineer or the chief inspector of the factories will publish regulations for approval or for comment by the industry. People have time, usually 90 days, to comment on and lobby for or against the proposals and in fact a lot of lobbying from industry and a lot of high pressure influence is brought to bear on people like the ministers through that process. Regulations in themselves don't often mean a lot, tending to mean more in mining than they do in industry. There are thirty thousand factories in South Africa and about 30 factory inspectors. The average rate of visiting a factory is only once every five years , and those visits are always made after the factory has been warned that the factory inspector is going to be there. So the factory inspectors only really get to the factories when there has been a death or accident. The regulations thus, act more as a guide to the employer than as a means of leverage for the union or the workers.

TAG tends to be involved in research , training and the production of publications. We have found that our work can be divided, not surprisingly into those kinds of categories. We employ 4 full time people, 2 staffing an office in Braamfontein, and the other two doing research through the Dept. of Industrial Sociology at Wits, focussing on health and safety in the mining industry and on productivity. The structure is complemented by about 20 volunteers like ourselves, who work after hours and inbetween times, like this.

An interesting area that has developed is the training of unions, in the use of computers. We provide an advisory service for unions who want to put their membership rolls onto computer, and do their administration from that point of view, whilst still doing quite a lot of health and safety work, accidents and occupational heatlh hazard documentation.

Some examples of the work that we do;

Training in health and safety. TAG would give a training course to a local union (a set of shop stewards for instance) in general health and safety, or a particular aspect of health and safety, like accidents and their investigation. We have made videos and other training aids, as well as published booklets and provided a fair amount of material in connection with this aspect.

Noise surveys. We would go out with noise measuring equipment, decimeters, fit them onto workers' overalls, which they would then carry around for a shift, and then at the end of the day or at the end of the week, we would read off that workers' exposure to noise. We use similar techniques for exposure to dust, asbestos fibres and that kind of thing.

Accident investigations and enquiries was the original field in which we started working. When there had been a death through an accident in industry, it was mandatory that the inspector hold an enquiry. Typically that enquiry would involve the inspector and one or two management people, with the possibility that they might call on one or two witnesses. So there is no worker representation and as a result they are formalities, more than searching or investigating into why the accidents happen. This has started to change a lot. One of the major incidents that kicked it off quite strongly, was the investigation into a coal mining disaster where 60 people were killed. There, for the first time, the union was represented, and well represented at that. It really took management by surpise, and caused the whole set of relations in the industry to change.

I've spoken about computer advice. This item on worker perceptions of the safety in mines, is the work that one of our members has been researching, consisting of surveys of workers' opinions of how safety issues are handled in mines. Out of this research a lot of publicity has arisen with respect to health and safety regulations, supported by our regular reviewing of the important regulations, which is a continuous project.

Work study and productivity is an area which is developing very fast. Work measurement was a technique which was actively used in the 50's, but since then it hasn't been used that much. But now since the recession, employers are trying to squeeze everything they can out of the workers, and are using those techniques again. TAG is not entirely happy with the technique itself,as there are lots of questions surrounding it. Nevertheless, when unions have asked us to come in on their behalf, around this area, we have done that.

There are far more areas of work and many more kind of issues that continuously develop, more than we originally envisaged. The reason I mention this, is that likewise, in architecture and town planning, it may be difficult at first to decide exaclty where your influence will lie. One tends to find out where one would be most effective, even if one is workin in an area which is not specifically related to the education that one that one receives at university. The fact that you receive an education and acquire a skill can prepare you for paricipation in areas that you have never envisaged or though of, that may devlop in the process of you practising as a formally trained architect.

The second part of this paper is derived from talking directly to workers about their experience of the workplace and how they see their factories.

The first point that was raised was the positioning and the sizes of toilets and change-rooms. They felt that toilets should be more evenly distributed in the factory, since if they were on a job, the time it takes for them to go to the toilet and then come back (if they are centrally located or on the periphery of the factory) is a long time, and they tend to get shouted at by their supervisors as to why they took so long. If you have a single toilet in the factory, congestion occurs, when at tea time, most workers want to go to the toilet before they have tea. By the time they've

gone to the toilet their tea time is over, so they don't get any kind of rest break at all.

The thing about change-rooms is that they tend to be too small in design, with not much space for the amount of workers they need to accommodate and without decent ventilation, except for small windows up at the top. These change-rooms are generally quite stuffy and smelly, and very unpleasant to change in.

The next thing was rest areas for luch times, tea time, early mornings and things like that, where you can go and have a cup of coffee and then go off to work. Generally they don't exist, and again when they do, they are small and crowded.

What happens when they don't exist is that during lunch-time the workers either go outside and have their lunch which can be dangerous because there are trucks and forklifts driving around, since factories stagger their lunch times to keep the work process continuous. (lunch time may be broken up into 3 half-hour periods), or if the weather is unpleasant then the workers end up having to eat lunch at their work place, which needless to say is quite dangerous.

In chemical companies there are fumes and chemicals around the place which may be mistakenly eaten, and which prove to be not very good for your health!

Now lets look at the factory itself. Generally when the factory is a good one, you have the offices built out of solid material with air-conditioning, carpets and sound-proofing, and it is made to be a nice environment to work in. But when you go along to the construction area itself, it has generally got a concrete floor (which is wet because it is being washed down all the time), which has a structure clad in fibre glass, aluminium or galvanised iron, with perhaps some insulation. Generally not put together so that it is a shelter from the environment, so that during winter the factory is incredibly cold and during summer incredibly hot. Also, these structures, because of the way they are made, are very noisy reflecting the sound back from the work environment.

You can imagine that if you are working in a metal factory, there is banging going on with people fabricating things. This sound is reflected back off the walls intensifying the noise level.

Small factories are generally not designed around the work process. They are put up and then a tenant moves in and sets up his (sic) machines and starts producing. There is not much you can do about the factory in a case like this, unless the basic structure itself is made more solid and more comfortable to work in.

For a factory that is designed around the work process, there is much that can be done to improve the environment of the workers.

The first thing is that ventilation can be installed to extract dust and fumes from the work area, or used to make the enviroment better. For example if you have a furnace in a metal factory you can arrange for fresh air to be blown passed where the people are actually working and so keep cool. The other thing is to provide a rest area near places of work - for any place where really hot work takes place you should have a rest area out of the heat, with cold water supplied. For places where there are many cold rooms you should have a warm area with hot drinks provided so that the worker can recover from the enviroment that he works in.

The third thing is the design of good storage facilities for raw materials so that the work place is uncluttered, and that these materials can be accessible and kept in safety. With many places the materials are stored any which way, and when you try to take the piece you want, something is sure to fall off the shelf and hit you. This is especially true of pipes and bars and things like that.

The use of sound absorbing materials for the walls is again important. Material such as asbestos tends to be quite dangerous, especially if the boards get broken, and fibres released. The other thing about noise is the positioning of sound absorbing boards hanging from the ceiling, to absorb the sound so that it doesn't get reflected around the factory.

Fifth is the demarcation of passage ways and working areas for free movement in the factory. There is nothing worse than for example a fork-lift driver to have to drive around these narrow passage ways carrying materials from one place to another. They should be straight and wide so

that they are safe and easy to work in.

Another thing is the isolation of dangerous machines, and processes that could injure people. For example, at a place in which I worked they had a tank in which they mixed ammonia and a few other chemicals, and if that was in a room with an extraction fan, it would have been fine. Every time they mixed these chemicals you would get these fumes with everyone coughing and having to run outside, and not being able to do their job and then being shouted at because they hadn't done their job.

The position of factories - their distance from home could also be looked at by town planners, so that small, polution free type industries could be situated quite a lot closer to residential areas, as opposed to being stuck in these industrial sites which are far from anywhere. These factories that are out in these areas could actually play a part in the community. For example, an open factory could be used as a meeting place for people in the community.

The third part of the paper may overlap slightly from what has been previously delivered, which is the way we try to address the problems that workers experience in the factory. This we do through talking to them directly and trying to formulate their ideas into training courses.

Through our health and safety workshops, we try to identify the different hazards. By hazards we mean anything in the workplace that can cause accidents or danger to your health. And so the typical safety course that we give, is derived from the main areas that are identified. We usually approach it using the following categories.

Noise and heat hazards are normally quite obvious in the factory. Dust and chemicals generally aren't because often you can't feel, smell or see them, as well as them having long term affects on you, rather than developing immediate symptoms, making them less obvious and more difficult to detect.

Hazards with machinery are often quite evident to a trained eye, but for workers who come into a new factory or new work place and are unfamiliar with the new machinery, they cannot be detected.

Stress is something which is more indirectly related to accidents than being a physical entity which causes them.

We all know that permanent hearing loss and damage is caused if you're exposed to too much noise. A noisy environment is also an uncomfortable one to work within. The allowable noise level as regulated in the Factories Act is 85 decibels;

a very quite room is 20 decibels,

street traffic is 80 decibels.

If you're exposed to 85 decibels continuously, you'll start suffering from noise damage. The thing to note with the decibel reading of noise is that it actually increases on a logarithmetic scale, which means that for every 3 decibel increase, the sound actually doubles (ie. 83 decibels is twice as loud as 80 decibels). If you have one machine making a noise of 85 decibels, then two identical machines will measure 88 decibels. It is an important factor when you start getting into the 90 and 100 decibel range.

The Factories Act says that where there is more than 85 decibels of noise in the workplace , workers must be protected from it. The normal kind of protection that management provides would be earplugs , ear muffs or some kind of ear protection. This isn't very satisfactory because the ear protection has to fit pretty well before it can be effective, as well as often being uncomfortable to work with. Workers often say that they get supplied with this equipment but don't use it because then they can't hear warning shouts, or any warning noises which are issued to give some indication of an imminent danger.

The best remedy is to remove the noise at its source. This is the ideal remedy, but would often involve the replacing of machinery with more modern and quiter ones. When you come into a factory which has bought all its machinery already its just not practical. Management is not going to agree to a change of machinery just to cut down on noise.

So the kinds of things that we suggest first of all is to have a look at whether one can change the work process. Eg. In a work process where things are dropped into a hopper from a height, one could adjust the

machinery , put some insulating or damping material on the inside of the hopper, and reduce the noise quite a lot. Another procedure would be to isolate the machine operator from the source of the noise, using buffer, reflective and absorbing materials.

To monitor noise we have small meters, yet it is still quite difficult to do a test. So in the design of modern factories, the architect could situate noise monitoring equipment in the places where the noise would eminate from, making it easier for everyone to monitor the noise without access problems, and in the process helping the unions and workers.

We know how the human body keeps cool; it sweats. By sweating water is taken to the outside of the skin, and when exposed to the air it evapourates, and in so doing removes heat from the body. But if you are in a factory environment in which the air is humid that evapouration can't take place, and subsequently the body can't cool down. The immidiate results are heat fatigue, which can lead to heat exhaustion, which in itself is quite serious. The way we advise unions to take this up, is based on a chart which comes from British and American health and safety manuals, which relates work time to the temperature of the workplace. At a temperature of 30 degrees Celcius you can do light work continually for 8 hours quite happily. For continuous heavy work (using a pick and shovel) you shouldn't be exposed to more than 25 degrees Celcius. If you have to do light work in places where the temperature exceeds 32 degrees Celcius, one would require at least a 50% rest period (ie. half hour on, half hour off).

To apply this type of action, unions generally ask management to monitor the temperature of the factory. Often, management do this, but without giving the unions access to the results, or sometimes management says they are monitoring it and that the temperature readings are fine, again without showing the unions the readings. So as with noise, a good idea would be to mount some sort of monitoring equipment in areas where hot temperatures are prevelent.

The normal ways to combat heat in the workplace, from a design point of view is with ventilation and air conditioning. Architects should take that up in their design of factories because the minimum standards at the moment are not adequate, regulating that you must provide some sort of general ventilation, which only means a certain percentage of open windows in closed spaces.

The above mentioned chart assumes that in rest periods, the worker has access to cold water in places in which the worker can rest and replace the water lost through sweating, because without the water replenishment the body cannot release anymore heat.

Dust can't always be seen, smelt or tasted, although it often is. Dust induced diseases are asthma, T.B., and pneumoconysis (the general word for disease which dry up all the spongy tissuewhich makes it difficult to breathe). Lung cancer is also contractible from certain types of asbestos and silicon dust. For protection against dust, management normally, if they are pushed, provide respirators or masks, but the problem with these is that they don't effectively protect the worker from dust getting into his body. The reason for this is that the right kind of respirator is required for the right kind of dust, and it has to fit tightly. It doesn't help if you have a respirator on, if there are gaps where the air can come through. They need regular maintenance, and a regular change of filter to make them effective, which doesn't often happen.

The best way to remove the dust hazard, is to extract the dust from its source. Often what designers do in factories is if there is a dusty area in one part, they ventilate the factory generally, which means that they take the dust and spread it over the whole factory and then extract it slowly. That is effective with some kinds of dust which only does damage in certain concentrations, but other types of dust do damage in whatever concentration you have.

In dusty areas it is important to have washing facilities, so that workers can wash and change overalls if necessary, before going to eat and before going home. It doesn't help to be protected from the dust all day, if you then take your overalls home and get the dust (especially if its dangerous, such as asbestos dust) taken into your house.

With dust there is the same sort of monitoring equipment as for

temperature, and similar in that it can be built into the factory itself.

Chemicals, similar to dust can get into your body through breathing air. They have the added danger in that they can get into your body through cuts, or through eating food that has been contaminated. In this respect it is crucial that drinking facilities be completely seperate from the work area, with laundering and washing facilities between the two, whilst not negating the fact that fumes should be extracted right from their source.

Again the type of protection that management normally provides is protective clothing, gloves, gogglesto protect the eyes,and respirators. However the point with protective clothing and respirators still applies, as does the layout and design of the work process, seen as a preventitive strategy to avoid accidents from occuring.

Machinery kills a high percentage of workers in South Africa, 8 workers per day according to the 1983 statistics (reasonable to assume that it is more now in 1986). With respect to machinery design there is little an architect can do, except place them carefully. In the design of machinery the main object is to eradicate nip points, which are points where belts come together and pulleys go over wheels, in which clothing can be caught and workers dragged into the machine. Its a discipline which lies within the field of mechanical engineering and mechanical ergonomics.

There is a whole list of things which contribute to stress in the factories. The main things are productivity (having to meet a quota), overtime, shiftwork, tiring or dangerous working conditions, insecurity of work, social isolation and then personal conflicts. From an architectural viewpoint I think there are only two which you could influence and that is the layout of the factory, taking all those things into account, making a healthier and more pleasant workplace, and social isolation which can be overcome by designing a layout which will provide social interaction between workers in the workplace.

The Acts of Parliament are totally inadequate to protect the workers in the workplace. The Mining and Machinery Occupational Safety Act (MMOSA) basically gives workers some rights, but incorperated within it are so many loopholes that what it basically says is that mangement can give workers any rights they feel like. Even so there are enough loopholes for mangement to protect their interests if workers press their demands. The only way to really take up these issues is through a strong union organisation of the workforce, making the workers, collectively, a force to be reckoned with.

One has to be realistic about the role that architects can play, within the parameters of their contract, acting as agents for, and in the service of their client. And yet it is our responsibility as architects to fashion and design acceptable human environments. This dictum borders on satire, unless we are concerned with those who use and inhabit the environment that we create. The primary contradiction is that generally it is not the user who finances the building or environment, and hence our essential role is to initiate discussion and a process of education with our clients, to develop a social concern, or alternatively to challenge the fundamental power relations within our society.

The final question that then remains is, **Does our education provides us with the skills and knowledge to intervene at this level?** We need to critically assess our own education and modus operandi, and strive towards the achieving of a less alienating environment, and hence a less alienated society.

The Celluloid Metropolis

Jeff Zerbst

Love, Kisses and a Reform Package or The desirability of Revolution without Mythology

When analysing a film for a discussion like this, one cannot do the work any justice and one must of necessity isolate a theme or motif and explicate the work via that. I cannot say all that I would like to say about Metropolis, all I can do is take a cross-section through the film via an analytical motif.

Gerald Mast has this to say: " *It is a series of shimmering pictures with the silliest, wateriest, intellectual paste holding it together ... romanticised stupidities and unconscious or perhaps conscious fascism ...*"

I think that it is easier to take the point that the film is politically and intellectually simplisitic rather than purely fascistic. The film simplifies labour relations to an unacceptable degree. One of the standard criticisms of the film is that it does not deal with a concrete political restructuring but simply a vision of goodwill. For what do the workers receive and what could they have hoped to achieve ? (A nice smile from Freida and little else!).

The two most precious commodities in a metropolis are obviously space and time. The chosen few have an abundance of these and the workers a dirth of both. The product of the workers is the city's continuing functioning, they are it's power supply; there is no actual product! So in actual terms their cramped space and regulated hours ensure that the chosen have time and space for leisure. So on a very simple level; it is these commodities that have to be redistributed. At the end of the film we are not sure this has happened. What is presented to the workers is more a religion and a mythology. Freida - the Christ figure - gives himself a mandate to spiritualise the city. This is what the film is about; spiritualising the machine. At the end Freida unites the city's mastermind and the workers in a spirit of goodwill and resolution. The terms of the 'new deal' are not stated, what new space havethe workers negotiated? The cynical answer is that they have been given the space to dream, to protect lofty ideals onto daily labour and effort. Have the workers not been duped with the opium of religion ? At the end of the film they are still at the bottom looking up. Do they have the powers of discernment to apprehend their lot in life ? Metropolis is problemmatic as it does not deal kindly with the workers at all! (To be sure they have been dehumanised and degraded, but it doesn't necessarily mean they have to be stupid as well!). They are portrayed as irresponsible - the flood - and easily led; passionate, violent and unwilling to listen to reason until substantial damage is done. Finally they acquiese in a negotiated settlement which has no substance, only implied promises. This is organised outside the church and the city is spiritualised by a gesture. This resolution is simplisitc and unsatisfactory.

The film is also held to be fascistic, unconsciously almost certainly. It reveals itself to be too respectful of power (symbolised by a huge, towering building, stretching as far as the eye can see), it is cynical about the way in which that power can be challenged and it romanticises a dictatorial system. The way that power functions is not changed, rather the way it is thought about. The savage machine is given the face of a benevolent dictator (or his son ... preferably his son because he smiles a lot!).

They give the workers a reason for working, they are now the symbol of the city. Freida has let the workers know of his benevolent feeling towards them ('Big Brother' loves them !) - small wonder then that Hitler and Goebbels offered Lang a job! Hitler included Metropolis in his list of top ten films along with 'Triumph of the Will' and the carefully edited version of the 1936 Olympics, also called 'Triumph of the Will 11"! Lang fled to Hollywood (what a choice, Nazi Germany or America, the stuff of tragedy!). He was half Jewish and leftist and did not like the way in which his films were being interpreted. His wife remained to ensure his films were edited satisfactorily - what a sell-out!

As a leftist it was Lang's intention to hold up to criticism the

soullessness and exploitation of the capitalist, industrialist system. Unfortunately in not being explicit in his political programme and by placing the reconciliation on a spiritual, romantic, utopian, idealistic level he allowed the Nazi's to read their own spiritual mythology into the text. The Fuhrer was the benevolent dictator helping workers overcome their alienation and to identify with the aims of the state, in a mythological unity. The film is thus too abstract conceptually to free it from interpretative manipulation.

Lang and all the political groupings of his day accepted the importance of technology as a tool of liberation. At this time the technological imperative was accepted by the capitalists and marxists. Technology was to be harnessed for the good of mankind (sic). Lang felt that every liberation movement needed more than a notion of the 'redirected', it must have a transcended element of belief, a vision of hope, a mythology. It is perhaps a truism that every revolution or political movement needs an overlay of ideology, which can transfigure evnets in terms of myth and give certain individuals and events artistic or poetical significance. So in a sense all political movements are quasi-religious. So perhaps the spiritualisation of the city could be the forerunner of something worthwhile, they have created the spirit of the revolution, or perhaps that is what the protagonists would proclaim!

Perhaps they would later give it concrete political expression! Whether one accepts this as true or not; depends on whether one believes that a visionary consciousness precedes political change or follows it; or if one thinks that the workers have been left with sufficient power and substance. The first point could be debated for a long time and Theodore Rosak looks at the issue in his book "The Making of a Counter-culture". In his book he shows how Marcusse and Brown would see an altered vision, a utopian possibility as a necessary precurssor of political action. A revolution - according to these two men - needs poetic vision, a rhapsodical ideal, an overlay of spiritual justification or what is derogatively called spilt religion. Marx, according to Rosak, would see concrete structural change as of primary importance. His hypothetical reply would be 'yes later, afterwards, after the revolution - then perhaps we shall talk of these things. We shall call together the commissars and talk about poetic vision'. This arguement is understandable if one views religion, quasi-religion and spilt religion as the opium of the masses. Vision, projected onto an unspecified time in the future could placate rather than inspire revolutionary consciousness.

Congruently, before social change can occur, there must be a vision of future society which goes beyond the mechanical, the structural, the procedural, the archetectonic. Every political movement needs as part of its socio-economic architecture a degree of vision, a faith. Assurance that the gestures of liberation will be translated, are needed. We want to give that reconciliation on the church steps content . Perhaps we want more than the customary rhetoric.

The city metropolis cries out for a fundamental alteration in the political status quo or the mechanics of power. This is another reason we are disappointed at the end; we are now too politically wise, we suspect that the gestures are empty. The workers are settling for a weak-kneed reform package. Freidason still looks unhappy on the steps, not I suspect because he is still in a state of anguished humility. He is unhappy even at surrendering a token and perhaps he is scared because he realises that if Lang's mob had any twentieth century perspacacity they would tear him to pieces. In terms of the plot's mythology this would be impossible, and inappropriate for the agreement of 'honour' sanctified against the back drop of holy writ. Freidason is going to keep his word, but his word about what ? That 'Big Brother' now likes the worker and will accord them respect ? 'No' replies Lang, Freidason will do more, because he has been alienated too! He will not disappoint the workers, he is a changed man. Today that is impossible to take seriously, I wonder who could in those days ? We are too mindful of the machinations of power. That power as Jan Kott reminds us, has becomes an end in itself, the dictator, the mastermind and myth-creator clings to his power with determination. He only feels alienated when he looses power.

Freidason has built a city that virtually, monolithically symbolises power.

Its exterior aspect is impressive and seductive. That marvellous interplay of light and shade and form, there is something wonderful about the city, its vastness suggests strength and mystique; which a really not very awesome flood could surely not challenge significantly. We must therefore see Freidason's gesture as a tactic. Amidst the supplications of Maria (the blessed virgin) and Freida (the Christ-like figure) who smiles that all will be well, Freidason comes to his senses; and thinks 'I can use this to my advantage'; I can create a myth, be a father-dictator whose religion has been founded on a day of wonderous events and portents. I've got a flood, every good religion starts with a flood. I had a spiritual battle between a satanic and angelic figure, I have a mediating gesture by my foolishly grinning son ! I can preserve power with a couple of conscessions and preserve the illusion, the myth, the dream of utopia sometime in the future. So what the workers have is religious mystique and intent, an eschatalogical hope is awakened which will probably not be fulfilled.

Marcusse who believed in the power of visionary hope, still located in an expectation of concrete and definate change, "*transcendence is not a realm apart from historical reality, not a region of eternally valid ideas. To be sure it transcends the historical reality but only insofar that it crosses from one historical stage to another.*" So his thinking is secular, are the workers thinking in secular terms? Marcusse contrasts secular with religious transcendence, "*religious transcendence is absolutely contrary to Marxism, which believes that the human condition can and should be improved through man's (sic) own powers. My transcendance is an impirical, historical transcendence to a different form of society. Whereas a Christian transcendence is out of this world to another world.*" Which transcendence do the worlers of metropolis get? Do they get living space or space into which to project illusions? We have the right at least to be suspicious?

Marcusse makes a telling point but his appreciation of theology is now outdated. For at least forty years the church has been debating the issue of the importance of religious secularity. This involves the breakdown of the dichotomy between the realms of the sacred and the secular. Immanence theology is the theology of today and it has brought much needed insight into the religious perception of politics. The creator of the world has not rejected the work of his own hands, so man must immerse himself in the affairs of the world. He must believe in an eschatology of realisation now. The theologian of secularity has a vision of realised humanity. Man must interfere - in the most positive sense - in the injustices of history on his faiths behalf. To be commited is to act, to realise oneself. Vision is subordinate to action in todays church. The gesture at the end of the film might presage change but it feels hollow; the workers are still below looking up. They seem unaware of their power. They accept a small gesture of affection, they deserve nothing.

Finally a brief Post-Modernist perspective on the film. Through this perspective utopianism is called into question. One of man's (sic) most deeply imprinted mythological notions, is the notion of a return to a primal wholeness. This is both an eastern and western dream, some would call it an illusion, some would call it a neurosis. The film metropolis is less ambitious than the worlds religions but it has an analogous faith. All believe there is a hidden telos within the universe, be it spiritually constituted or a product of material necessity. Something inbuilt in the universe brings everything back together in a 'primal wholeness'. However, the central motif in Post-Modernist thinking is fragmentation not wholeness.

This motif finds expression in the film **'Paris Texas'**, here a scientific concept is given mythological status. The universe, we are told, started as a small ball of matter and energy which exploded into millions of scattering fragments. This metaforce is at the heart of the film. We see a universe's centrifugal forces at work, man's (sic) abortive attempt to find meaning in a return to his family's primal ground, the collapse of the concepts of family and nationhood,the disapperence of love and the inability to communicate; in other words the collapse of life's primary signifiers. What can bring the divergent elements of life back together again? The Post-Modernists will reply "nothing" and perhaps he (sic)

would be right. Perhaps theologian Richard Rubenstein is correct when he says that there is little evidence of a redemptive God in the universe, that has any cosmic significance of telos. Could and should we not create one for ourselves? Why should we enter into a metropolitan mythology of spiritual symbolism? Why should we trap ourselves in a closed system of beliefs based on telos, myth and idolatory? We do not need a Fuhrer of the city, platitudes and rhetoric.

In opposition to those who long for a city with a cohesive and located social past, Harvey Cox admires the power of the city to confer anonymity. He does not want an ideology which would give him a mythological overview of life. He wants time to persue his own ends and the space to do it in. A metropolitan collective is a laughable concept, no city has a corporate identiy. In the city man (sic) wants to be what he could not be in the tribe, village/town. The city provides two essential gifts, says Cox, anonymity and choice, of course if he (sic) is granted time and space. Anonymity is not necessary ingnomity as it implies a release from myth and ritual. Choice provides man(sic) with the means of shaping his own work and recreation. This does not mean that man(sic) lives only for himself but that he has his own pocket of referencing significants. He (sic) still has concern for others outside his circle.

So in the end I agree the city has to be respiritualised but not in the sense of a corporate myth. A city is a place where people cohere not co-join. The city ideally should bve a set of fragments, a collage of random pockets, a network of friendships and contacts constructed on an ad-hoc basis. It's respiritualisation depends on an equitable redistribution of time and space, but not on a mythology. In such a city the abstract nature of the collective myths of society must be recognised. So Lang's congregation of citizenry, then, does not work for me. Not just because it is utopian in concept, but utopian in terms of a mythological overlay.

Malcolme Purkey

If we are to grasp the origins of Metropolis we must understand that is was a film extraordinarily in touch with it's own time.

Made in 1926, seven years prior to Hitler's seizure of power; the film is a complex mixture of all the philosophical strands that lead to that nightmare - religiousity, science-fiction,germanic magic, dehumanisation and class war. Set in 2026 the film's iconography includes World War 1 aeroplanes as well as rocket ships.The science-fiction elements such as the manipulation of traffic and highways coming out of buildings are reminiscent of New York.

Fritz Lang in fact states that his vision of the 1920's New York nightscape inspired him to create his metropolis. The city in the film is almost a 'super New York' realised on screen using the Schufftan effect (the use of mirrors, models and live actors simultaneously).

The city is divided into two; the upper part of wealth and leisure, bustling with air taxis and cars. A city of big business, high-ranking officials and dangerous security police- perculiarly like home. The lower part - built deep underground - seethes with a mass of workers in slave-like conditions. Deprived of light they are a perfect representation of the alienation of labour; caught literally and metaphorically in the workings of a huge and grotesque industrial machine. This pervading perversity can be seen in the leisure spaces that look too much like games areas of Nazi Germany, decaying Art Deco, places of sex and deep beneath the city another kind of space altogether.

In "The Haunted Screen" Lotte Eisher says: "Lang used expressionistic stylisation to great effect; impersonal, hunched, servile, spiritless, slavish beings dressed in costumes of no known period. The stylisation is extreme. During the change of shift when the two columns meet, marching with rhythmic but jerky steps; and when the solid block of workers is heaped into the lift head-bowed, they completely lack individual existence."

In "Doctor Caligari" - the first and other famous German Expressionist film - the triangle and the diagonal dominate and are the key elements of distortion. The rectangle - the primary principle of construction - has an absolute sharpness of outline that is hardly broken by individual movement.However both "Doctor Caligari" and "Metropolis" show a stylisation of form, a distortion that is grotesque and expressionistic.

The experience of the film reflects the experience of is time; particularly in its representation of the class struggle and the anxiety arising out of Twentieth Century industrialisation. Marx pointed out that the division of labour reduced the human spirit to a mechanised shadow. The clock-working sequences - with a ten number clock - directly represents the alienation of labour. The film illustrates how the workers are bound by the machine that they are parts of. It is interesting to note that much of the Expressionist acting was based on an explanation of robot-like movements. This may seem comic as it has lost its power and meaning with distance. This does not detract from the film.

The most disturbing element in the film is its 'prophetic' nature.

The workers are like the inmates of a concentration camp; the dehumanising pyjamas and hats they wear are a frightening vision of a world that was rapidly descending onto Europe. Streams of bodies, their heads shaved, pull stones across the landscape to build this madman's dream - a Babel. The prophetic nature of the film poses a difficult question, a question which may seem naive but which is important: Does a film like Metropolis, with its powerful iconography, help to bring about the social conditions it is ostensibly condemning ? If you portray aggression, anger, and alienation, if you portray extremities, are you merely laying down the iconography or by anticipating the future help its realisation ? Perhaps we shouldn't grant art that much power (but the right-wing always do)!

It is interesting - so the myth goes - the day after Lang was invited by Goebbels to make films for the Nazi Party, he packed his bags and left. It is also interesting that his wife stayed behind - there is sufficient in the

film to allow her to become a Nazi. Perhaps there is a partially unconscious entouchment with the times which permeates the film's look and feel.

The central dilemma of the film is that it pushes its social analysis and understanding of the class struggle so far and no further. The film's conclusion becomes hopelessly entwined with mysticism, black magic and mythology. This is a source of the film's power and failure. The religiousity and the transformation of the soul - the myth of the two Marias - the dual nature of human kind - the whore and the virgin - is partially what Lang is interested in. We sink deeper into the city where the workers do not seek a socialist solution but to be mystified or appeased. Despite this mystification - the opiate of the masses - it cannot be tolerated by the industrialist. This is one of the film's central questions; why does he want to change the situation? Is it possible that even that degree of rebellion is contrary to his 'will'.

In any film where good triumphs over evil (as all good art must!), the evil would be identified and rooted out. Metropolis is thus caught in an ideological Catch 22, Lang could not show the overthrow of the industrialist (who is, or at least his agents are, the source of evil). The film's logical conclusion cannot be reached. In the film's own language (the codes of evil) the ending is indicated and the final resolution is thus disappointing. The 'reforms' leave one feeling dissatisfied, perhaps the state control of the film's financing accounts for this. So when the workers rampage, led by the principles of evil, they unleash the floods of destruction against themselves. Lang places great store (liberal moral store, one might say) in the moral centre of the film: if capital is the mind and labour the hand, then the hero Freida (the man in white who looks unfortunately like a Nazi Party outrider) is the mediator of heart and hand! The iconography reinforces this Christ-like salvation theme. Freida is the art, the emotion; which explains his perculiar performance, he is the heart in motion.

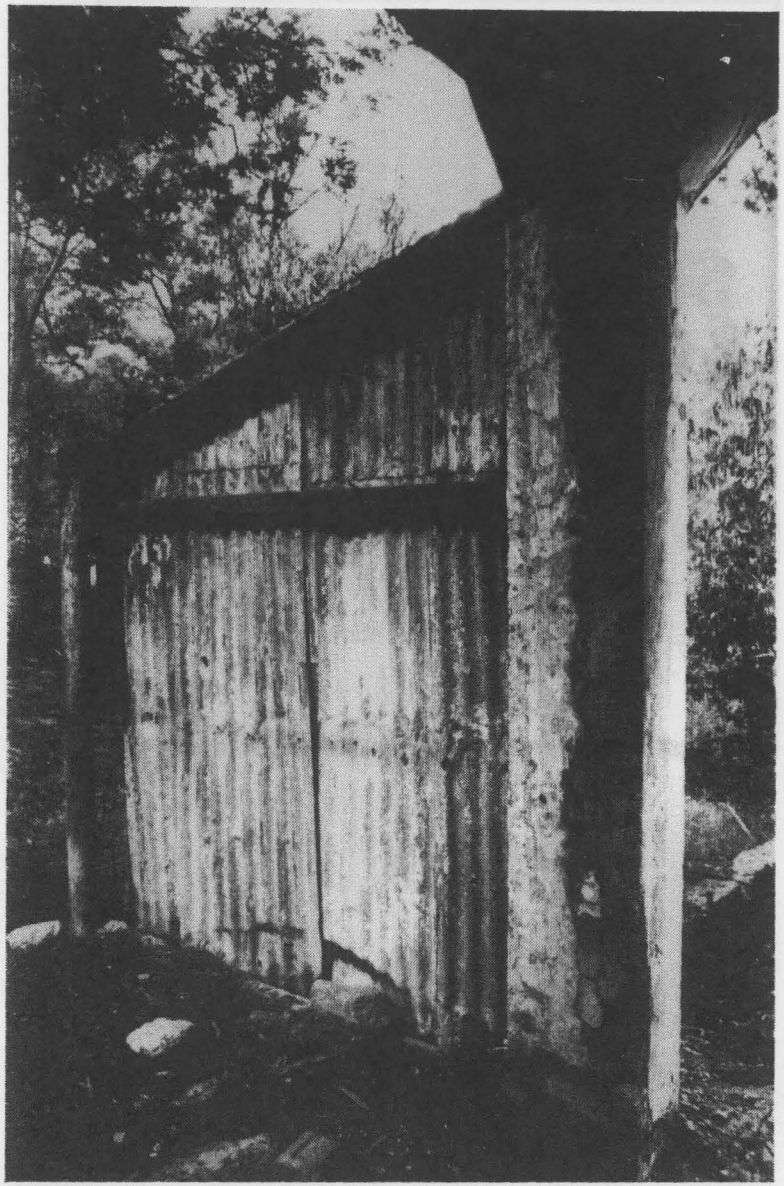
As a solution, the reconciliation of industrialist and foreman through the son is woefully inadequate. It ends with a romantic, expressionistic faith in victory through love. Critics of Expressionist philosophy accuse its proponents of systemmatic separation from the world of reality or at least a withdrawal into the visionary, private universe of dreams and nightmares. It is a limitation determined by its time that the film seeks such a lame ending. The power inherent in the elements of the film - mob violence, the hero, a mad scientist etc. - is unfortunately not realised.

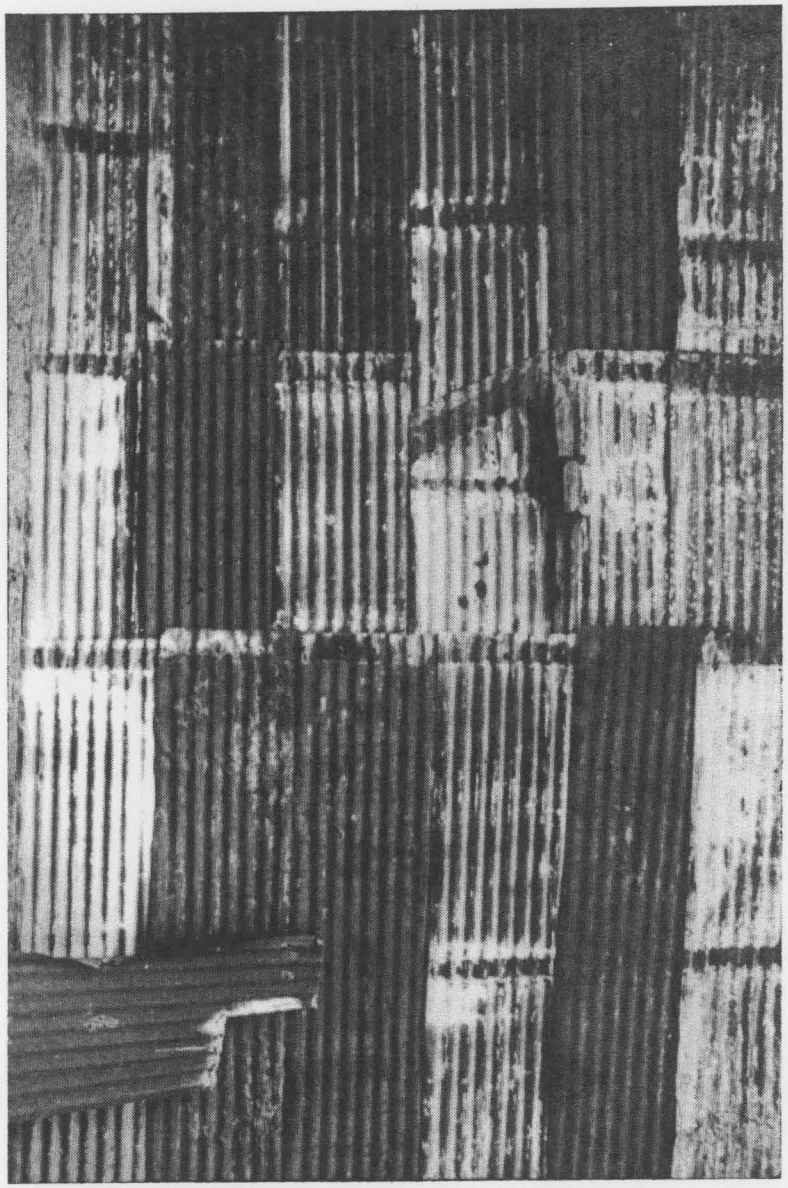
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THE DORMITORY CITY DAY

The Birth of the state housing policy

Derek Japha

Introduction (1)

In 1951 the National Building Research Institute (NBRI) began the design for an experimental housing project at KwaThema for the Springs Town Council, which was built over the next few years. This project had a dual significance. On the one hand it prepared the ground for the massive state housing program of the 1950's (2), by establishing a model for the African 'township', a method for its realisation and an ideological justification as a 'scientific' form. On the other hand, it represented the culmination of a long program of research initiated by the architectural profession many years earlier, which had been prompted by concerns similar to those which had placed the problem of low-income housing first on the agenda of the European avant-garde (3). This local program of research was developed mainly by liberal members of the alignment known as the South African Modern Movement, as a broad program to achieve environmental reform. This paper will examine the development of the professeional discourse that firstbrought the program into being and then took it to the point of implementation in KwaThema.

The evolution of the 'South African Modern Movement' and of the 'township' have thus far been the subject of independent histories, none of which has dealt with the involvement of professionals in the housing program. In Martiennsen and the International Style, Herbert (4) has described the development of a 'modern movement' in Johannesburg during the 1930's, mainly asa result of the activities of a small clique centred on Rex Martiennesen and known as the Transvaal Group. Housing features hardlyat all in Herbert's account, because by 1940 the South African Modern Movement, considered from the point of view of style, was over (5). Since the local recovery of the missing social dimension of European 'modernism' was in the main a later phenomenon, it occured beyond the temporal limits of Herbert's study.

The most systemmatic accounts of the history of the 'township' and of the policy leading to its creation are those by Wilkinson. He traced its development in Johannesburg from Klipspruit (now Pimville) to Soweto (7) and analysed the post-war restructuring of the State housing apparatus which made possible the program of the 1950's (8). This latter paper dealt extensively with the political background of the housing crisis which gave rise to this program, and with the legal and bureaucratic apparatus developed to 'resolve' it. But although Wilkinson recognised the importance of the KwaThema experiment and described the development of the National Building Research Institute (NBRI) and its attempts to provide a 'scientific' basis for state housing policy, he did not cover the role of the architectural profession in that attempt, or the origins and ideological transformations of the formal models applied to the design of the housing estate.

This paper is an attempt to explore some of the interrelationships between these two histories. It deals with the period between the first emergence of a housing program within the profession in 1937 and its first practical realisation, in a different form, in the KwaThema project. The first section of the paper covers two separate aspects of the formation of professional ideologies prior to involvement with the state. The one is the development, as a relatively isolated professional discourse, of planning strategies with which to confront the housing crisis, a discourse related mainly to European modernist housing practice and to emerging critiques of it. This was reflected in two events and their associated literature, the Town Planning Congress of 1938 andthe equally significant Rebuilding South Africa Exhibition of 1943. In the course of these, Corbusian urbanism, which had been thedominant influence on the program in South African architectural history. Common to both events was the attempt to establish a 'socially grounded, scientifically based' program of action for the profession (9). The emergence of this discourse is the main theme of the paper.

A necessary sub theme of the develpment of professional ideology

covered by the paper, relates to the principle of professional engagement within the South African context. In this respect the discourse which developed was not a discourse in isolation, but was one located within the South African liberal tradition. The principle of engagement with the state was developed as part of a reformist political program and the more clearly it became articulated, the closer it moved to accomodation with traditional patterns of urban segregation in South African cities. In the process it provided the first South African attempt to adapt the policy of regionalism to this purpose, an event not without significance, given the continuing importance of the 'regionalist debate'.

The second section of the paper deals with the implementation of the program. It will show how the architectural professionestablished links first with the National Housing and Planning Commission (NHPC), the state agency responsible for the formulationof housing policy, and with the NBRI, the body established in part to provide the research to 'solve' the African housing crisis of the mid 1940's. it will show how these links led to the production of the 1949 reports of the Research Committees on Minimum Standards of Acccomodation and how from his point the program was translated ino an 'intervention technique' through the rationalisation of the house as the unit of production (9). Thus the program provided an ideologically justified formal model for urban residential segregation and became an important element in the development of techniques to make possible the policy, established by the Nationalist Government, of the elimination of subsidies for African housing.

1)The development of the housing program in the profession 1937-1943.

Apart from a brief interlude occassioned by the 1931 competition for the design of orlando, won by Furner's partnership, with Martiennesen second (10) (see fig 1), the first evidence during that decade of any professional awareness of what was already thena local housing problem of considerable dimensions (11), occurred outside the immediate circle of the South African Modern Movement (SAMM). However, by 1937 students at the University of the Witwatersrand School of Architecture were beginning to challenge the nature of the relationship between local architecture and its European sources, and in the process to draw attentionto the significance of housing as an architectural problem. Herbert (12) has identified the prime mover in the devleopment of thisnew consciousness as Kurt Jonas, a Marxist member of the South African Zionist Socialist Party, who had become an influential member of the Transvaal Group while he was still a student. Jonas' ideas were reflected in a range of sources, including lectures, a joint thesis in collaboration with four other students and the 1938 Town Planning Congress which he organised partly to disseminate its formal and ideological contents (13).

Jonas' critique of the Transvaal Group's formalism first appeared in an address delivered in 1938 to the Student Society of the School of Architecture (14), in which he argued not against the Corbusian formal preoccupations of the Martiennesen circle, but

against the idea that they could be pursued in contextual isolation. Following the example of European 'modernists', he suggested that modern architecture was not just another style but that it implied a radical social transformation, in the absence of which not even aesthetic aims could be properly achieved. He therefore deplored the aestheticism of the Transvaal Group and suggested that it was incumbent on modern architects to work actively for social change (15).

There were several dimensions to the discourse established in the lecture and continued in his later work. In the first place, since it addressed the principle of engagement by professionals, it was the first attempt to confront the problems facing South African architects working on housing in a context of racism and exploitation. In the second, it attempted to re-establish a connection with the lost political discourse of European 'modernism' and to generate a formal model for housing which could be substantiated in political, social and 'scientific' terms.

In this latter respect Jonas was less iconoclastic than might have been expected. He simply attempted to rectify what he considered to be the

misappropriatrion of European modernism caused by an unacceptably narrow definition of architecture by Martiennsen and other members of the Transvaal Group (16).

But he made no attempt to broaden the range of influences within the SAMM,by reference, for instance, to radicals like Hannes Meyer, who disputed the artistic status of the discipline altogether in favour of a rigorous functionalsim, or even to the work ofarchitects like Van Eesteren or the housing programs of the Neue Sachlichkeit in the Weimar Republic, which were the most significant demonstrations of progressive modern practice at the time. He simply attempted, by a process of post-rationalisation, to reinforce the 'Corbusierism' of the Transvaal Group, by constructing a political justification for the work of Le Corbusier andpresenting it as an illustration of 'scientific modernism' and the logical product of sociological, psychlogical and technical analysis. Therefore his attack on the group was not intended to create serious rifts, but only to imply that in renouncing the 'scientific' tradition of modernism, it had lost its claim to 'social validity'.

The designs taken form Native housing, presented to the 1938 congress as one of two local exhibition schemes by Jonas and his colleagues, were a further reinforcement of the status of Le Corbusier as the dominant reference for the SAMM. The thesis consisted in the design of a town for 20 000 people, with proposals for housing and a wide range of community facilities. The layout of the scheme owed almost everything to the redent blocks of the Ville Radieuse and the buildings, while not entirely Corbusian in style, were also related strongly to his work. (See fig 2)

While Jonas' acceptance of the appropriatenes of Corbusian urbanism and the necessity for a 'scientific' architectural practice were to remain unequivocal, his attitude to the problem of engagement in the South Africn context vacillated. In his address to the Student Society in 1938 he alluded to this issue by asking if the architect would not face the question of "whether it is really worth while to produce luxury commodities only, or whether there is not a bigger task...the task of altering and designing the living conditions of the large masses." Jonas suggested that should he (the archiect) favour the latter alternative "he will probably produce Town Planning schemes a la Le Corbusier which presuppose a socialist society." Corbusian planning schemes could never be accepted in capitalist societies, because they were unprofitable and would "change the mental make up of their inhabitants [since] there is not the slightest doubt that if people moved from slums to towns such as those designed by Le Corbusier there ... would be an end to capitalist society". From this Jonas concluded that working within the system was pointless. "It is a fallacy to belive that society can be changed by architecture. If the architect wants to have these schemes built, he must realise that society must be changed first". In the absence of such change the only role for the architect was thatof polemicist "helping to develop a progressive spirit"(17).

Behind this curiosly self-contradictory mixture of naive determinism, pessismism in the 'social mission' of architecture and the attempt to situate Le corbusier within the radical tradition (18), lay the perennial dilemma of the architect seeking to politicise his or her practise. On the one hand was the desire for the activist engagement of the discipline, on the other the fear that its efforts would be perverted by the context in which it was forced to operate.

It was a dilemma to which Jonas was unable to respond following his own advice. In spite of his assertion that the discipline could not expect results from engagement in isolation, his own acitivty at the time that the passage was written indicated a different choice. This wa reflected in his almost contemporary introduction to the Cogress of 1938 where he suggested that - "the betterment, both in man's social relationships and more particularly in his surroundings, that can be brought about within the framework of the present, should not be underrated...And even if...the contemporary architect has little hope of immediate success, he yet renders society a dual service, he gives the impetus to some betterment to man's surroundings, and he shows what could be done, without Utopian premises, simply by applying the resources of

contemporary economics, science and art." (19)

The different conception this expressed had already been reflected in the rapid development of the housing research in the School of Architecture which had resulted in the publication of the thesis. The thesis was intended as a practical demonstration of the three necessary phases for a rational and non-Utopian approach to the problem of housing and urbanism which Jonas identified in his opening address to the congress - "a scientific theory, a logical programme, and a practical line of action " (20).

What this implied was the 'accurate' analysis of the existing context and the development of 'practical' solutions capable of implementationwithin it.

Consequently although many negative structural features of the context were identified and strongly criticised, they were taken asgiven, and were used as constraints for the design. For instance the concept of 'the satellite township' for African housing was accepted, in spite of the serious reservations expressed about urban segregation. On the other hand, the principle of subsidisation was rejected on the grounds that it was an impediment to the realisation of African housing schemes, The arguement supporting this contention illustrates the inherent contradictions so well that it is worth quoting in detail.

"The main argument against subsidised rents [for 'Native' housing] lies in the fact that as long as the immoral principle of fiscal segregation and the social pariahdom of the Bantu proletariat persists (sic) as social realities, so long will no municipality or public body in South Africa provide decent living conditions for the Natives if that requires subsidisation from general revenue. The harsh reality is that the ruling European population of South Africa gives presents to the Natives only by miscalculation...In the long run the Bantu proletariat cannot expect to get better housing accomodation that it can pay for...Therefore, to suggest improvements on the present housing schemes resulting in sub-economic rents is to cherish Utopian illusions." (21)

In one way the comment was an accurate anticipation of disputes over liability for African housing losses that continued until it was 'rsolved' more than ten years later by state policy to concentrate only on economic housing. But the clear implication of the thesis and of the presentation to the Congress was taken after all the negative structural features of he context were taken into account, a substantial residue of achievement remained possible.

This could be attained partly because of the existence of a pure technical field of operation for the discipline, unaffected by politics, partly by the capabilities of design to mitigate adverse contextual features (22) and partly because of the inherent effect of the architectural object itself on popular consciousness (23). Inherent in the projected act of architectural engagementwas a hidden agenda in political and environmental terms. In spite of its associated rhetoric, the argument was in part reformist and in part predicated on both environmental determinism and belief in the possibility of value free engagement at the technical level. The effect of the argument against utopianism in the text was to do no more than substitute a utopia of 'unrealiseable intentions' for a utopia of the 'unrealisable plan'. The elements of this arguement were to be crucial to the work of the following years.

The concern with housing problems, which at first was relatively isolated within the School of Architecture, spread rapidly thorugh the profession in the early 19407s, fuelled by an international climate in which programs for post-war reconstruction werea common obsession, by the belief that such a program would be inevitable locally as well and by an escalating and increasingly visible crisis in African housing on the Witwatersrand and elsewhere (24).

The Town Planning Congress of 1938 was thus far the only significant contribution to defining a response to these problems but theideas it had expressed were obviously unrealistic and in any case were rapidly superceded by the local manifestatins of an international crisis in the modern movement in architecture precipitated by the war. This was reflected by the development of an anti-Corubsierian polemic within the profession.

In 1941 one of the members of the thesis group, Roy Kantorowich, published a recantation (25), in which he extended Jonas' schematic critique of utopianism by pointing out its perfect applicability to Le Corbusier. Citing the Swiss master's controversial relationship with the Vichy Government(26) and the well known failure of the Moscow proposals, Kantorowich now saw Le Corbusier's work as unrealistic and politically suspect. The City of Tommorow and the Ville Radieuse which he and his colleagues had previously believed to be the progressive exemplars of a future society, were in fact the products of Le Corbusier's infatuation with the myth of 'the Architect as Hero' and of his belief in environmental determinism. Kantorowich suggested that as a result he (Le Corbusier) had completely misread the impetus of contemporary capitalism, and the consequent scope available to architects to effect social change.

The article provoked an extensive and acrimonius correspondance between the detractors and supporters of Le Corbusier (27) ending with an important contribution from Norman Hanson(28) supporting Kantorowich. This letter is a clear indication of Hanson's dissatisfaction with what he had increasingly come to see as the formalist tendencies in his own early work, a dissatisfaction manifested by a growing belief in the necessity for a social and political practice within the discipline. The significance of theletter lies in the fact that it was his first clear public manifesto relevant to these new concerns, written at just the time thathis position had been consolidated as the leading figure in South African modernism after the death of Martiennsen, and as an important member of the Transvaal Provincial Institute (TPI), its chief spokesman on housing issues and the prime mover in the further development of the housing program.

There were two aspects to Hanson's letter. With respect to the specific issue of Le Corbusier, he supported the necessity for a political reevaluation, while falling short of a complete rejection of Corbusian architecture. however he gave more decisive support to Kantorowich's argument for the necessity for the political engagement of the discipline, by returning to and elaborating the themes that had earlier absorbed Jonas. He isolated the architectural implications of the base/superstructure model as the main theme in Kantorowich's paper, and stated that he was in agreement with what he took to be its implication that the artist is "decisively conditioned by his time" and must "ally himself with progressive forces if he wants to avoid being drawn..into the camp of social reaction"(29).

Architects could best make this alliance by contributing what they could to the development of a better and less exploitative distribution of resources in the built environment, which in turn could be ahcieved only by a non-idealistic architectural practice."...Idealism in the philosophic sense means turning away from the realities of todays tragic struggle for the survival and betterment of mankind. Such a detachment might have been comparatively harmless in times of lesser social stress, but can it be named other than reactionary in the tense situation in which society is now placed?...To idealism we must for self preservation oppose realism, a realism with its roots in a just social organisation."(30)

What Hanson meant by realism was involvement (within the terms of he discipline) in the "struggle for making tolerable the material conditions of the lives of all the people by the planned and equitable use of our human and material resources".(31)

Thus the rejection of the propositions of the previous decade, reflected in this interchange, was partial. The argument for the necessity of engagement was not only adopted but elaborated. That for a 'socially based, scientific housing program' was implicitly accepted as well. But the formal model in terms of which both should be acted out was not, and what was thus required was á new paradigm to fill the void created by the rejection of Le Corbusier.

This was attempted in the work leading up to the ambitious and influential (32) Rebuilding South Africa exhibition of 1943 (33), sponsered by the TPI, together with the Wits School. But in spite of this nominal joint responsibility, the main intellectual impetus for the project probably came form Hanson, who was the main organiser, and who

delivered one of the most important papers ot the accompanying congress (34). The exhibition was the product of a synthesis of ideas from such diverse sources as Soviet planning, American New Towns policy, German Rationalism of the 1920's, the writing of Lewis Mumford and the post war work of Walter Gropius. Of these the last two were probably the most significant.

After the publication of The Culture of Cities (35) Mumford (36) became an almost inevitable source for architects disenchanted with Le Corbusier. Although Mumford's hostility, expressed more by lack of interest than by overt criticism, was not yet as developed as it was later to become(37), the tenor of the book was utterly at variance with Corbusian urbanism and had already been partly recognised as such in an important review article by Angus Stewart, a member of the inner circle of the Transvaal Group (38). in spite of this ambivalence recognised by Stewart, Mumford was not anti-modernist, but his writing incorporated into the body of modernist thinking ideas to which the 'internationalists' had for the most part been unremittingly hostile (39). It thus must have seemed to offer the possibilities of both continuity and regeneration, the recovery of 'authenticity' not the loss of 'modernism'. So, although The Culture of Cities was an attack on internationalism and an argument for regionalism, it was also,with respect to housing, an argument for the continuation of some aspects of the 'modernist' tradition.(40)

One of the reasons for the impact of the book on the architectural establishment was that it was not couched purely in terms of generalities. Mumford also directed attention to appropriate formal models for the new 'organic' approach, by relating the concepts of regionalism, the Garden City as defined by Howard and the neighbourhood unit as defined by Perry and implemented by Clarence Stein and Henry Wright at Radburn and elsewhere (41). All these were projected as the planning devices for establishing anew regionalist consciousness which would "sustain the richest types of human culture [and offer]a home to every type of characterand disposition and human mood" and provide a "habitat [forming] a continuous background to the delicately shaded scale of human feelings and vaues [,as] the prime requisite of a cultivated life."(42). It was an iconography difficult to resist.

Gropius was an equally obvious reference.He was widely regarded as one of hte archiects in the European Modern Movement most repsonsive to social issues. He had published important papers on housing (43). He had consistently argued against an architecturepredicated only on stylistic preconceptions. His work was a practical demonstration of 'objective scientific method' within the discipline. After he had left Germany for America shortly before the war as part of the Kulturbolchewismus (44), he had himself attempted to come to terms with the complex of ideas extolled by Mumford.

The exhibition was a direct reflection of these new influences. Although it was presented explicitly as a development of the 1938 Town Planning Congress it was a radical departure (45) in that the internationalist vision of Le Corbusier which had dominated thework of 1938 was abandoned in favour of a regionalist approach, whihc was considered to be more realistic, democratice and locallyrelevant, and therefore better able to achieve wide social, environmental and aesthetic goals. In this new program the model for urban spatial organisation was the neighbourhood unit (46). (See Fig 3)

The exhibition was also an attempt ot dvance the ocncept of the 'scientific' status of the discip@line from mere polemic to 'fact'. It was a reflection not only of Mumfords theories, but also of the first three stages of hise recommended method based on linear and inductive design procedures: the topographical and historical survey; the critical outline of needs and activities in terms of social ideals and purposes; and the imaginative reconstruction and projection into the plan. The presentation of the exhibition was specifically organised to create the impression of rational and unassailable method - first the surbey - then the analysis - then the plan (including proposals for housing) presented as its logical corollary.

The implication was that the 'scientific' status of the discipline rested not only on the technical issues which were one obvious locus for htis

concern but on a design method in which the act of design would be not so much informed as directed by 'objective contextual analysis' from the disciplines of economics, sociology and psychology. In the process the professional and his academic collaborators were increasingly presented as technologists operating free of politics and their work distanced from the political plane (47).Thus in the exhibition concepts of regionalism and the organic neighbourhood unit were presented as the 'scientific' products of rigorous sociological and economic analysis and clearly emerged in as the formal construct to replace the'unscientific' Corbusian influences' on the 1938 exhibition. (See Fig 3)

But of course these concepts were not value free in spite of their wide geographic and idological currency. The essence of the concept of regionalism is that of response to context, and in South AFrica, both it and the neighbourhood principle offered very specific possibilities for contextualisation, possibilities which resulted in an attempt to establish their potential significanceto South African patterns of urban segregation (48).

The easy possibility of congruence between the practices of segregation in South Africa and regionalist and neighbourhood themes can be illustrated by a prohect developed by Gropius in the early 1940's at Harvard university, the products of which he publishedin 1943 (49). The project consisted in the design for a new town. The proposals suggested the new unit of the 'township' as the lowest subsection in an hierarchical urban system. In additon to traditional Garden City measures like communal land ownership and local self government, designed to foster local autonomy and prevent speculation, the principles for its development included: sweeping redevelopment by the "square mile"; the evolution of legal, financial and administrative instruments to enable planners to conceive and implement master plans; and the resettlement of all those without permanent employment in new townships along super-highways surrounded by farm belts.

Not only are the plan forms familiar (See Fig 4) but some of the text refers directly to methods of the kind used locally.

"Such a policy (resettlement of people in new townships) calls for transferring endangered production as well as purchasing power from a sore spot in the old city area to a sound new city, resetlling those inhabitants of the old city who can not be gainfully employed and have hence become a serious cause of blight and congestion. This transfer of idle labour would relieve the sick body of the old city...Simultaneously the stranded workers could be reclaimed for production at a much lower cost per capita than the old town had to pay for slum clearance on expensive land...By transplanting idle labour from cities as well as rural regions, both the townsman and the farmer will be helping to build new settlements. These "reception basins" (inverted commas in original) for uprooted people could take over functions which neither our big cities nor the open country can fulfil." (50)

In his paper to the congress Hanson showed himself to be aware of possible misuse of the neighbourhood concept (51) and argued vigorously against its application to intensify economic inequality in South Africa.

"For the basic requirements of life all sections of the population have an equal claim. The non-European community cannot be descriminated against when such fundamentals as health and housing minima are being established..... The fact remains that the community pattern is possible only when there is equal participation of all the people in the growth of the city, when the benefits of social and health services and civic amenities are enjoyed equally, when similar and corresponding rights in property and local management prevail within each community unit, and when the living conditions of none fall below scientifically determined social and physical minima" (52).

But his concern did not extend to the principle of segregated neighbourhoods, which he seems to have considered beneficial in two senses. Firstly, there was some "margin for differentiation" in the "difficult field of race characteristics, where the expression of cultural and social habits and traditions must find a place" (53). Secondly, although he had agreed that segregated neighbourhoods could be economically

exploitative, they also contained the possibility for achieving a more equitable distribution of resources. Thus regionalism and neighbourhood planning offered the possibility of a solution to the "vital question of the residential segregation of non-European from European races" which could be achieved through the "extension of community planning from the regional to the urban sphere" (54) What he meant by this was explained by the statement earlier in the paper that "The points of resemblance between regional and urban problems are ... illustrated most strikingly in the controversial field of racial segregation. The relation of a Native reserve or region to adjacent regions and the totality of regions is not unlike subsisting relationships between location or native township and the entire structure of the town. The community pattern in both cases carries the hope of a reasonable settlement of present differentiation (55). "Like regionalism on the national scale, the (segregated?) community pattern of the town offers the possibility of a balanced distribution of the economic and social advantages of urban life" (56). By this argument, what for Jonas had been an unpalatable necessity, had now become a virtue. (57)

II THE IMPLEMENTATION OF THE PROGRAM

Given the establishment of both a broad environmental program and an argument for the necessity for engagement, it is not surprising that from about this time the ISAA, at Hanson's instigation, began to address the last of the items on Mumford's methodological sequence, the "absorption of the plan by the community and its translation into action through the appropriate political and economic agencies" by developing further the inconclusive negotiations with the state on the question of a National Planning Commission which had begun in 1941 (58).

The impetus to adhieve a more satisfactory resolution, from the Institute"s point of view, was increased by the fact that as the housing problem in the country"s urban areas grew steadily into a full scale crisis (59), it became more and more obvious that drastic reorganisation of the housing agencies was imminent. Thus there was the prospect of dealing, not with an established and secure bureaucracy, but one in a state of flux and particularly susceptible to influence. It was against this uncertain background that the Institute attempted to create a role for itself.

Between 1943 and 1945 it initiated meetings with and sent a series of letters and memoranda to the Minister of Health and various officials in the Directorate of Housing (60). After various frustrations, these finally produced the desired result, with the appointment of Hanson, first to the advisory National Housing Council in 1944 and then to the NHPC in 1945, a position which he continued to hold for almost twenty years (61), from 1947 on the Executive Committee of the agency (62).

At first the NHPC's efforts were restricted purely to housing for ex-servicemen and throughout 1946 and most of 1947 the organisation showed as little sign of coming to terms with the African housing crisis, or even with broader problems of planning in general, as had its predecessor. Thus in the first years after Hanson's appointment, there is little sign of any impact of the ideas of the 1943 exhibition on official policy. Hanson became disillusioned with the abilities of the NHPC to confront the planning problems facing it (63), but by the time that this occurred, a new avenue of work had presented itself in the rapidly developing field of housing research.

The need for this was the inevitable consequence of the expansion of the role of the State in housing delivery (64) but at first the direction that it would take was uncertain. In March 1945 the NHPC wrote to Dr. Schonland, the Scientific Advisor to the Prime Minister, to motivate for the establishment of a housing research program, but were told that their efforts had been pre-empted by the formation of a Building Research Unit by the Department of Commerce and Industries (65) which had already held a preliminary meeting to establish it. This organisation was to become the NBRI. (66)

Since an exact program of research had not yet been formalised, the first task of those attending the meeting was to make proposals for the establishment of a Building Research Advisory Committee which could

"formulate the questions to be asked". D. Haddon, as the TPI representative at the meeting, nominated himself and Hanson as members to represent the profession; these nominations were subsequently confirmed with Hanson as the member and Haddon as the alternate.

Thus Hanson became involved with the NBRI at the policy making level even before its affiliation with the CSIR was established in 1946, and by virtue of his memership of the NHPC as well was uniquely qualified to connect the interests of the two organisations. The measure of success he achieved in doing this can possibly be gauged by the extent to which the NBRI's perceptions of its functions had altered by 1946 from those expressed in the tentative brief set out before the 1945 meeting. As the minutes of the preparatory meeting on the establishment of this organisation show, the research intended was mainly technical (67). By 1946 a whole new area had been added, reflected by the establishment of an architectural division, with a brief which included the organisation of field experiments for housing for the NHPC, in collaboration with the ISAA and the universities, and "the study of Non European urban and rural housing to discover means of providing (housing) in sufficient quantity to relieve the acute shortage; and of improving the standards of accomodation"(68). The Architectural Research Officer appointed for this work was Paul Connell, one of the joint authors of the 1938 thesis (69).

Previous work within the profession had long since identified the establishment of "scientifically determined social and physical minima" (70) as the next step. This issue was the obvious focus of the newly defined scientific imperative, uniting as it did sociological and technical problems, and involving a return to well established modernist ground.

The establishment of a minimum housing standard had been sanctioned by a wide range of sources as an essential feature of any 'progressive' housing development program (71). By early in 1947, the issue of standards was on the agenda of the NHPC and after a tentative attempt from within the organisation to address it (72), the CSIR was appointed by the NHPC to undertake and coordinate all work on housing standards. This resulted in the establishment of a major research project to undertake the work (73). Following an official CSIR invitation to the ISAA (74), members of the South African Modern Movement were well represented on the various committees (75).

The project resulted in the publication of the Interim Reports of eight sub committees and the main committee on minimum standards of accommodation in 1949 (76). There were two main aims to these documents. The first was to develop the basis for a non-racial 'scientific' minimum standard of space for housing in South Africa, and to delineate the further research required to put it into practice. The second was to enshrine the neighbourhood planning concepts of the 1943 exhibition into local housing practice, and to define the standards of open space, and accommodation other than housing, necessary to make it work (77). The reports were based on the fundamental determinist assumption of neighbourhood planning theory: that good neighbourhoods make good citizens and that it is therefore "in the interests of every civilised country to set its standards of housing as high as possible within the means of its economy".

This document represented the culmination the process initiated in 1943, and the point it reached was largely the product of a professional and academic discourse in relative isolation (79), in that all its important aspects can be traced to influences from the housing practice of the international modern movement: the belief in the possibility of an 'objective science of the environment'; the impetus to set a standard; and the formal models for housing development proposed. As the Report of the Main Committee indicates this relative isolation was to some extent intentional (80).

It was possible only in the context of the United Party's inability to frame a coherent 'Native policy", as a result of which virtually no African Housing at all was built even after the housing agencies had been restructured by the formation of the NHPC. As a result, the research program was not forced to confront issues 'realistically', nor indeed were

its objectives dictated directly by the NHPC although it had commissioned the project. While the vacillation in the NHPC gave lattitude for the pursuit of the liberal intentions reflected in the research reports, it had also for some time given rise to frustrations at the lack of action. In 1946 Hanson had reported to the ISAA that

" I will not summarise or comment on the effectiveness of that work (his work in the NHPC) except to state that what is revealed in all its nakedness is the confused and un-coordinated approach to planning problems which is characteristic of physical development in South Africa. In this respect the Commission possesses powers which thus far it has not exercised to do regional planning and to coordinate town planning. These powers are somewhat vague and inadequate and measures far more dynamic and far-reaching will have to be taken before the rudiments of planned development can be attempted in South Africa" (81)

By the middle of 1948 the situation was little changed on the surface (82) and as a result the advent of a new government, however unwelcome in some respects, may well have seemed to provide an opportunity in others. Shortly after the Nationalist's accession to power, the ISAA took steps to maintain the relationships which it had established with the housing agencies under the United Party Government.

In July 1948, a letter was sent to the new Minister of Health, Stals, to ask him to receive a deputation to discuss the"national housing question", to point out the achievements of architects in the past with respect to national housing both in the NHPC and in the field and to express the ISAA's desire to "continue to assist, in fact to render greater assistance to the Government on an issue of such national importance at such a critical juncture" (83).

The Minister agreed to a meeting, and a memorandum and a further letter were prepared and presented to him when it took place in July 1948. The argument in the letter reflected in some ways Hanson's frustrations of several years before. It argued that the organisation of the NHPC was basically sound and capable of carrying out a large building program, that the results thus far were only a fraction of what the profession could achieve and that in order for National housing to proceed more rapidly and productively "in the first instance and in contrast to past practice, a more scientifice lack of such definition has prevented a clear statement of the problem" (84). Although the hope of more extensive professional involvement expressed in this letter was to remain unfulfilled, the minister was reported to be "impressed" and the profession's representation on the NHPC and the NBRI was unaffected by the change in government.

The documentation of the later research stemming from the work of Interim Research Committees on Minimum Standards of Accommodation communicates a smooth transition from this phase to the next (85).

The final and most important of the recommendations of the Interim Reports was for the need for further research "to study ways and means of ensuring the provision of the recommended standards in all future housing (and) to consider every promising avenue by which its object could be attained". These included the investigation of methods of construction, sources of labour and material, the production of building material and the possibilities of more efficient organisation in building (86). The immediate consequence of this recommendation was the formation of further Committees to review the standards recommended in the interim reports and to examine in depth the problem of the 'costs of Native Housing" (87).

The work of these committes, which developed the elements of the 'township' of the apartheid state applied for the first time in Kwathema, was carried out parallel with the increasingly coherent formulation of the 'urban Native policy' by the new government. It was a formulation, that, as Wilkinson has shown, (880 led to the systematic instrumentalisation of housing policy to achieve a number of specific objectives, which were stated with absolute clarity by both Dr Eiselin, the Secretary for Native Affairs, and by Verwoerd himself. (89)

The appropriation of these objectives of the profession's research program into housing became a matter of course. We have already established that in the specific conceptualisation of regionalism and the

neighbourhood unit which had occurred already in 1943, the basis for this appropriation at the level of urban spatial organisation had been established. Thus it is not surprising to find it applied in the much more extreme segregation under the Nationalist Government, ideally suited as it was not just the demarcation of seperate racial areas, but also seperate 'ethnic' areas. Even the terminology became absorbed into official parlance. (90)

The impact of the program was not restricted to the scale of planning alone. The increasingly reductionist and scientific approach to the analysis of housing problems, evident in the varying stages of the evolution of this research, made possible its appropriation to a second prblematic, that of making African housing 'economic', or in other words eliminating subsidy.

Throughout the 1940's the question of responsibility for losses sustained on African housing schemes had been a point of conflict between the state and local authorities, and between the state and commercial and industrial capital, and none of the various formuli evolved had provided a solutin acceptable to all parties. (91) This had led to two problems which were dicussed in the NHPC. One was that some local authorities built no housing at all. The other was that some attempted to build up substantial capital assets at subeconomic rates, by providing what were considered to be 'lavish' accommodation, particularly with respect to community facilities. (92) This had been partially curbed by the ceiling of 30 pounds per house placed on permissible annual losses but the NHPC officials considered it possible to reduce this figure substantially if the agency were to stop functioning purely as a funding agency and enter the field of housing delivery directly on its own account. The argument supporting this contention was an important component of the memorandum discussed by the Smuts cabinet in 1948, on the basisof which direct state entry into the construction of African housing was approved for the first time. (93) With the accession to power of the Nationalists, the program for the reduction of losses became a program for the elimination of losses.

Wilkinson has argued that this program must be seen in the context of the finacial stringency of 1949 (94) but even if this were so it continued as official policy long after the original cause had been removed, and certainly became a cornerstone of the African housing policy emanating from the Department of Native Affairs and was identified as such by Verwoerd himself."It must be realised that one cannot get a housing campaign on a national scale started as long as it is founded on uneconomic building methods, that is to say the unsound position: Every additional house for a non-European means an additional burden to the European Community." (95)

The measure of "success" of the policy to eliminate subsidised housing is that in 1950/1 20% of housing funds allocated were for economic housing and 80% for sub-economic; by 1953/4 the proportion was approxiamtely equal; by 1954/5 it had been inverted; and by 1961 only R22 472 out of R10 760 299 allocated for African housing was for housing that was subsidised (0.2%) (96). It was a situation that enabled W.Mocke, Senior Urban Areas Commissioner, to claim with evident satisfaction in 1956 that the cost of housing had "ceased to be an ever increasing burden on both the central government and local authorities" (97).

This was a policy of the utmost significance to the further development of the housing research program, which became directed more and more to achieveing only this single objective. While claims continued to be made that the program was based on meaningful social research and was achieving real gains in terms of the environmental quality of African housing (98), these became little more than platitudes (99) in the face of an increasingly 'technistic' practice, as the program began to focus almost exclusively

on the rationalisation of the individual house as the unit of production.

Since the precondition for any detailed technical work was the establishment of a standard of space, the first question to be addressed was that of bringing to a conclusion the preliminary investigation of the 1949 Research Committees. To this end a joint committee of the Department of Native Affairs (NAD), the NHPC and the NBRI (100) was established to review them.

The 1949 reports had attempted to strike some kind of balance between 'culturally and biologically defined minima' and 'economic realism' but had been opposed, in principle, to the establishment of a minimum standard on the criteria of cost or race (101).

However, in recognising the 'special problems' pertaining to urban African housing and in expressing the fact that they had had noreal objection to an "austerity approach" or the reduction, in an emergency, of the recommended standards (102), the authors were tacitly admitting the futility of their own stated position.

Thus the standards they had established were modified by the review committee in two respects. They were made racially applicable and they were drastically reduced. (This reduction amounted to an average of about 30% if comparison is made on the basis of room sizes only, but by much more if projected occupancies are taken into account. See Graph No.1 in Appendix 1). If these revised standards are compared with housing standards prior to 1949, it will be seen that the entire exercise did no more than rationaliseaccomodation standards at levels approximately equivalent to already current practice. The new standards implied some design improvements (103) and were slightly better in some cases but in others they were worse and on average they made little difference, (See Appendix 1) except that they now had 'scientific' sanction, as the products of a long and systemmatic process of research that had begun in 1947 (104).

They were published in 1952 as Minimum Standards of Accomodation for Non-Europeans and were used as the template for all

subsequent state funded housing and as the basis for the designs of the NE51/ series of houses by the architectural branch of the NBRI. The completion of these meant that type plans were now available which could be used for the further rationalisation of the unit to reduce costs.

Several possible avenues were open and all were explored using the NE 51/9 house as the basis for the research (See Fig 5). The point of departure was that, while it would be impossible to achieve substantial savings on any single item (105), the minute examination of every aspect of the building and their procurement would yield significant results. Thus committees were established to investigate the following aspects: the technical elements of buildings; labour employed on construction; materials; overheads and profits; and unorthodox construction methods. The effectiveness of this approach can be measured by the fact that in1944 the Director of Housing had given the National housing Council a figure of 400 pounds as the cost of a house (106). The cost of a house in KwaThema, after 10 intervening years of inflation, was between 227 and 310 pounds (107).

Thus the scheme at KwaThema, described as "the interpretation of sociological findings into bricks and mortar" (108), brought together as the products of a ten year program of 'objective technical research', the regional planning of African housing, the neighbourhood unit as the

spatial model for its organisation, the rationalised house constructed on a space standard "believed to constitute a workable basis by which family life may be safeguarded" (109) and a concept of rational labour utilisation for this construction.

In the face of this progressively technistic method, the intentions of the planning constructs used in KwaThema are difficult to detect in the featureless landscape of the realised housing estate itself, except at the abstract level of the plan. This, however, is not the case with the drawings published by Calderwood of the experiment and it is to them that we must turn to understand the iconography of the design. The drawings are resonant with the nostalgic anti-urbanism of the Garden City movement.

They include delicate freehand drawings of houses surrounded by gardens, bizarre depictions of the NE51 series of houses as bucolic bungalows, an axonometric of an experimental group of row houses isolated in the countryside like part of a Robert Owen ideal village and illustrations showing the plans to be realisations of the diagrams of the neighbourhood theory introduced at the1943 congress and consolidated by the 1949 reports.

The organisation of the plans conforms in almost every respect to the classic definition of the neighbourhood by Clarence Perry. About 6 000 people in size, with boundaries separating and articulating the neighbourhood from the body of the town, with an internal street system, with the school and the community centre as the nuclei around which 'local democracy' could evolve, and inwhich 'responsible citizens' could be formed. This environment is portrayed implicitly as the logical product of thirty years of modern movement on the rapidly expanding industrial city and the aytempts to create the environmental preconditions for "a communion of subjects who do not know the anguish of metropolitan alienation" (110). (See Fig 6)

It would be incorrect to exaggerate the role played by architects in the development of the housing program, which was not the creation of the profession, nor was its momentum dependent on their efforts. It was also a restricted role, in that the program involved a wide range of legislative and other elements with which the profession had little to do. However, the KwaThema synthesis did establish the basis for the material reality of the African 'township' of the apartheid state and the contribution of architects and other design professionals to this was not insignificant, in terms both of the developmetn of practical solutions to the broader environment and the house within it and of ideological hustifications for thses in 'sociological' and technical terms. In evaluating this, the inherent ambiguity of housing provision and the difficulties of predicting the future must be taken into account, but the engagement of professionals was not entirely innocent at the outset, and the 'hidden agenda' was pursued long beyong the point of any reasonable expectation of success. The consequence was the validation of an instrument ofrepression.

There is widespread agreement among design professionals that the 'township' is an environmental disaster. This is commonly held to be the result of a failure of the imagination, or the absence of properly formulated planning theory, or the use of bad orinappropriate planning theory. consequent to this is the belief that avoiding these errors will produce a different result. An important objective of this paper has been to show that this is not so, and to suggest that nay professional program will fail if it is constituted in isolation purely as an aesthetic or technical

discourse, unrelated to the political and economic issues which dominate the provision of housing.

Notes and References

1. I am grateful to the various members of my department who commented on drafts on this paper, and I have incorporated many of

their suggestions. The errors must be attributed to me alone.

2. In 1954 and 1955 alone, the state allocated finance for as many houses as had been built since the Housing Act was passed in

1920. Statistics are given in annual National Housing and Planning Commissin Reports.

3. concern with the social implications of architectural practice, particularly in relation to housing, were so well developed in

the seminal writings of the European Modern Movement as to be widely recognised as one of the distinguishing features of 'modern architecture'. See, for instance, the La Sarraz declaration of 1928. "The architects here present, having a firm determination to work in the true interests of modern society, believe that, by disregarding the problem of the dwelling in favour of a purely prestigious architecture, the Academies, conservators of the past, impede social progress" Republished in Le Corbusier The Athens Charter New York 1973 p8. See also Bauer Wurster C - The Social Front of Modern Architecture in the 1930's - Journal of the Society of Architectural Historians March 1965 p48ff.

4. Herbert G Martiennsen and the international Style: The Modern Movement in South African Architecture Cape Town and Rotterdam 1975.

5. In its early stages the movement's work was based on an appropriation mainly of Le Corbusian forms. During and after the war the formal precepts governing the work of its surviving members were radically revised.

5. Although herbert correctly identified challenges to the early formalism of the Transvaal Group and the development of trends which "directed the architect towards the social and political arena, and away from he purer fields of aesthetics and technics to which he had previously been dedicated" he saw these as symptomatic of a divergence of interests in the period rather than as the prelude to later developments which were part of the same phenomenon. Herbert op.cit p238 and note 23.10.

7. Wilkinson P - Out of Sight...Out of Mind? The Development of African Housing Policy in Johannesburg and the Genisis of Soweto 1902-1953. Unpublished manuscript. I am grateful to the author for letting me read it.

8. Wilkinson P - Providing 'Adequate Shelter':The South African State and the 'Resolution of the African Housing Crisis, 1948-1954 - in Hindson D Working Papers on Southern African Studies vol 3 Johannesburg 1983

9. The use of the term 'scientific' throughout most of this discourse is "purely emblematic and allegorical". See Poggioli R Cambridge Mass and London 1968. The Theory of the Avant-Garde Cambridge Mass and London 1968 p139.

10. See the Klipspruit Planning Competition - South African Architecturaol Record (SAAR) 1931 p86.

11. Wilkinson P Out of sight...Out of Mind? p25.

12. Herbert G. op.cit p238

13. See Jonas K - The Architect and the Social System - SAAR 1938 p204ff; Jonas K - Intorduction to the Town Planning congress - SAAR 1938 p269-9;Kantorowich R - A Model Native Township for 20 000 Inhabitants - SAAR 1938 p344ff. The thesis itself was subsequently published in an

edition of 500 copies, (Connell et al Native Housing Johannesburg 1939) and attracted sufficient attention to have been reviewed favourably evein in the international architectural pres. in an unsigned review article in the Royal Institute of British Architects Journal Jan 44 p67, it was described as the only work of its kind, of significance to the "entire colonial housing problem".

14. See Jonas, K. - The Architect and the Social System - SAAR 1938 p204ff.

15. Ibid pp213-4.

16. "The town planner cannot be content with...solving only the problems of drainage or of aesthetics. The twon planner must be scientist and prophet, engineer and moralist, sociologist and psychologist, advocate of hygiene as well as of art" Connell et al op.cit p1.

17. Jonas, K. - The ARchitect and the Social System SAAR 1938 pp213-214.

18. Presented in obvious ignorance of the authoritarian syndicalism underlying the Ville Radieuse. For a discussion of Le Corbusier and syndicalism see Fishman,R. Urban Utopias in the Twentieth Century New york 1977 p226 ff.

19. Jonas,K. - Introduction to the Town Planning congress - SAAR 1932 p268.

20. Ibid p269

21. Connell et al op.cit p43.

22. Ibid pp39-41

23. Tafuri has suggested that this belief is a constant feature of avante-gardism - "Avant-gardes are always affirmative, absolutist, totalitarian. They claim peremptorily to build a brand new context taking for granted that their linguistic revolutionnot only implies but actually 'realises' a social and moral upheaval." Tafuri, M. Theories and History of Architecture Granada 1976 (1968) p104.

24. Reflected in a dramatic increase of articles on housing published in SAAR during the war. See eg: in addition to other sourcesquoted below: Bryer,M. Housing or Holocaust 1940 p415ff; Spence, B. - Native housing 1940 p387 ff and The Problem of the Location:A Report of Housing Conditions in the Transvaal 1943; and Hanson, N. The Problem of Housing Now and After The War 1944 p191ff.

25. Kantorowich R - The Modern Theorists of Planning: Le Corbusier, Frank Lloyd Wright, Etc - SAAR 1942 p6 ff.

26.For a fuller treatment see Fishman,R. op.cit p244ff.

27. See: H Martiennsen - Le Corbusier and the USSr - SAAR 1942 p84 ff; Kantorowich, R. letter SAAR 1942 p178ff; and Stewart letterSAAR 1942 p291ff.

28. After Martiennsen, Hanson was the most important member of the Transvaal Group, in some ways even more talented. His buildingsof the 1930's were certainly the equal of almsot any modern work t the time anyshere in the world, and he was an articulate, even formidable debater, who became the dominant personality in Transvaal architectural circles after Martiennsen's death in 1941. Hanson's letter was published in SAAR 1942 pp298-299.

29. Ibid p298

30. Ibid p298-299

31. Ibid p299

32. For instance it almost certainly influenced Report 5 of the Social and Economic Planning Council.

33. The exhibition itself and the entire proceedings of the accompanying congress were published in SAAR in the September and October issues 1943.

34. Hanson, N. Community Planning in SAAR Oct 1943 p228ff.

35. Mumford, L.The Culture of Cities New york 1938.

36. I am accentuating the role of Mumford because his work was crucial to he development of the American urban polciy of the New Deal which was so influential here and because the literature by Hanson and others makes constant refernce to The Culture of cities. But Mumford's work was, of course, only one element in a wide range of 'regionalist' influences which appeared before and after the war. others include the Tennessee Valley Authority Project, as the "most significant example of regionalism achieved under a Capitalist economy", Soviet Regional planning, the publication of the Wright Report on Regional Planning for New York State, the Barlow Report, the work of the Regional Panning Association of America, and the work of perry, Wright and Stein refelected in American New Towns.

37. In the Culture of Cities he criticised early schemes like the City for Three Million People and Algiers, but called the Ville Radieuse a marked ideological improvement and Nemours "one of the best rational layouts that has yet appeared". p414 . By 1963 Mumford was describing Le Corbusier as a "menace". Letter to osborn quoted in Walden, R. Introduction to Walden R (ed) The Open Hand - Essays on Le Corbusier Cambridge Mass and London 1977 p1.

38. Stewart, A. Man and Nature in SAAR 1939 p393ff. In his discussion of Stewart's article, Herbert op.cit p237 is wrong to impute "deep antagonism to Le Corbusier" to The Culture of Cities See note 36.

39. The connection betweenthe Garden City conept and such landmarks in Modern Movement housing practice as the work of May, not entirely obvious on the surface, had had been correctly pointed out by Mumford (op.cit p399). Mumford made this connection vived by juxtaposing Greenbelt Maryland with Romerstadt on opposite sides of Plate IX. What he did not point out was that May had actually worked for Unwin, although ther is , of couse, no trace of Unwin's nostalgic neo-medievalism in the Frankfurt Siedlungen.

40. The regionalist concept was not devised by Mumford himself. For Mumford's own account of his debt to and his differences with Patrick Geddes see Mumford, L. My Works and DAys - A Personal Chronicle new york and London 1979 p100 ff.

41. The inter-relation between thse latter two ideas is complex and can give rise to confusion if they are not precisely defined within the terms of their separate intellectual hisories. In South Africa the feature of planning practice often attributed to theinfluence of the Garden City concept is the geographically isolated township in the form of a dormitory suburb, surrounded by arterial roads or a green space/buffer strip, in whihc low-rise low-density housing and local community facilities are located along a characteristically irregular pattern of internal roads. This owes virtually nothing to Howard who almost certainly would have been appalled by it since it violates most of the principles he advocated. His own scheme was directed specifically against both the dormitory suburb and urban sprawl, and was predicated neither on such low densities nor on the subdivision of urban districts at a scale smaller that the town as a whole. (As illustrated by Letchworth, in which no use was made of neighbourhood theory) Whatever the demerits of the Garden city model, failures in South African housing cannot be attributed to its use. Unwin'sHampstead garden suburb is more relevant 8including a departure from Howard) as are his writings on density including the famous pamphlet Nothing Gained by Overcrowding - and the paper Higher Building in Relation

to Town Planning; both published in Creese, W.(ed) The Legacy of Raymond Unwin: A Human Pattern for Planning Cambridge Mass and London 1967. It is the neighbourhood conept (for a review of the literature see Herbert G The Neighbourhood Unit Principle and Organic Theory The Sociological Review july 1963p165ff) not the Garden city concept which is particularly pertinent to the planning of African housing in South Africa. This was originally formulated by Perry, subsequently popularised by Mumford and practised in a range of examples which is extraordinarily diverse both formally and ideologically. Densities and plan forms vary considerably among these different applications, but the constant is idea of the geographically isolated, self-contained residential neighbourhood. This idea is reflected as much in applications like the Siedlungen built in frankfurt and Berlin, described by Tafuri as among the most important chapters in the social democratic administration of the city (See Tafuri,M.Architecture and Utopia:Design and Capitalist Development Cambridge Mass and London 1976 p109 and Lane,B. Architecture and Politics in Germany London 1968 p87ff) and the micro-district of Soviet Planning practice, as it is in American examples like Radburn associated with the politics of the New Deal.

42. Mumford op.cit quoted in Stewart A Man and Nature - SAAR 1939 p

43 See Eg: The Sociological Premises of the Minimum Dwelling and houses Walk-ups or High Rise republished in Scope of Total Architecture London 1956.

44. Included among thse were Wagner and Hilbersheimer, who joined Gropius in America and Taut, who, together with the entire Franfurt group headed by May and Stam, relocated in the USSR.

45. Although the architects responsible for mounting it did not themselves accentuate these differences, they did not entirely escape notice. The sociologist L Silberman, in his address to he congress made the following comment - "The Transvaal architects are the exception to the rule [of professional apathy]. Made socially conscious by a succession of brilliant studetns, the able leadership of Mr Hanson, and the insistence on town planning by Professor Pearse long before this was a fashionable subject, they have cast overboard an outlook to which they have so long been wedded and replaced functional professionalism and political silence with an architecture that is both realistic and social. They have proclaimed an architecture that is as much social science as engineering is applied mechanics and dynamics. There are features in this congress that are in advance of anything thathas come out of Europe. There is a philosophy underlying it that would make Le Corbusier choke in his Vichy waters." Silberman,L. the Social Postulates of Planning in SAAR 1943 p216.

46. None of these ideas was entirely new in South Afric. Arguements for neighbourhood plannind had made sporadic appearances at congresses and in the professional journals. it had been discussed briefly but not by name by Biesheuvel S The Psychological approach to Planning in SAAR 1938 p291 (paper to the 1938 congress). The advocacy of regionalsim had already appeared as well. Butthese concepts were unsystemmatic and untheorised until the exhibition, which , even in international terms, was an advanced application of these concepts for the time.

47. See Hanson N Vote of Thanks to G Ballenden - SAAR July 1942 pp145-6. the preconditons to planning are stated as a comprehensive survey to detemine:demand, capacity

level of production, socio-economic conditions overcrowding, income levels, occupations, the economic growth of the "Native", demographic trends, factors affecting regional planning, the structure of the building industry, relationships between building costs and wage levels, appropriate building materials etc. The implicit assertion in the passage that these issues can be 'objectively' interrogated to provide planning constraints is an illustration ofthe reduction of political questions to technical questions characteristic of this type of discourse.

48. It has long been recognised that, notwithstanding the (much disputed) objectives of these theories to extend democracy and to foster a sense of community they could be used toestavlish both race and class segregation and as a device to limit the access of such segregated areas to he financial resources of the society or city. See Mumford L The Neighbourhood and the Neighbourhood Unitin Town Planning Review p256.

49. I am not suggesting thas the project itself was designed for any such purpose. See Gropius W and Wagner M A Program for city Reconstruction in The ARchitectural Forum July 1943 pp76-77. This paper should be read in conjunction with Gropius W Organic Neighbourhood Plannind 1949 reprinted in Scope of Total Architecture London 1956, and Gropius W Rebuilding our Communities Chicago

1945. I refer to these ideas in detail becaue they were undoubtedly known to South African housing researchers. Calderwood, for example, quoted from the latter book in an address to the Institute of Race Relations on 'Native Housing' in 1952.

50. Gropius W and Wagner M op.cit pp78-79.

51. "Territorial splitting up may...tend towards sectionalism or worse, towards a vicious form of segregation. Hansom N Community Planning SAAR 1943 p231.

52. Ibid p234/.

53. In this respect hanson quoted Stalin - "to create closer spiritual ties betwen the centre of Rusasia and the border regions wemust develop local national schools, national theatres and national education institutions and must raise the cultural level of the people of the border regions. Nobody will deny that (the) border regions, since they are striving for the cultural and material prosperity of the masses, must have their own native shcools courts, administration and government bodies recruited from among the native people". Hanson appears to have believed that differentiation in this way would paradoxiaclly achieve integrationby some unstated dialectical process. The principles in community planning at both regional and urban levels "are of particular significance to South Africa, where the integration of comunities is a process awaiting realisation" Ibid p234.

54. Ibid p233.

55. Ibid p232.

56. Ibid p234.

57. There is a parallel between the development referred to here, and events discussed in Rich P White Power and the Liberal Conscience Johannesburg 1984. However the exploration of these relationships in detail is beyond the scope of this present paper.

58. Late in 1941 an ISAA delegation met JH Hofmeyr to recommend the inclusion of a complete scheme of regional planning in the national planning program and the establishment of a Planning Commission with wide terms of reference. After theis immediate objective had been

satisfied by he formation of the Social and Economic Planning Council in 1943, on the advice of its Chairman, JH Van Eck, the ISAA began to concentrate on housing in its representations to the state. ISAA Central Council Minutes (CC) Jan 261942 its first report, written by HAnson, was tabled in Sept 1942.

59. eg: in 1944 the Directorate of Housing estimated that 440 000 houses would be required over the next 10 years. Minutes NHC meeting 11/12 Dec 1944, GES 2434 P15 National Archives Pretoria (NA).

60. These exchanges are recorded in: (CC) minutes 20th Sept 1943; 21st July 1944;Oct 7th 1944; Letter dated 5th June1945 appended to CC minutes 18th June 1945; ISAA Executive Committee (EXCO) minutes 22nd Aug 1944; EXCO minutes 11th May 1945.

61. He resigned from the commision in 1963.

62. The question of self interset is clearly raised by these approaches. My opinion is that there were some expectatons that contact could lead to work for the professions as a result of any possible housijg program after the war and it is also true that such work did indeed materialse. but the ISAA undertook that its members would work on the national housing program at reduced fees, which prompted a not insignificant lobby for withdrawal fromt the program because it was unprofitable.

63. See his comments in CC minutes 24th April 1946.

64. As early as March 45 a committee representing the Department of Health and the NHPC submitted a memorandum to the Cabinet suggesting that the government should: buld houses itself where local authorities had not; fix profit levels for the construction of state housing; and empower the NHPC to requisition land. Untitled MEMO 23/3/45 GES 2533 PH38 (NA) This was only the first in a series of steps that ended in 1948 when the Cabinet authorised the NHPC to take executive responsibility for sub-economic housing for urban Africans, an authorisation nullified by he change in government shortly thereaîter. Letter Secretary of Health to Secretary of Public Service Commission 11/2/48 GES 2533 PH 38 Na.

65. Letter Schonland to Secretary for Public Health 23/3/45 GES 2520 PH11 NA

66. It was taken over in 1946 by he Council for Scientific and Industrial Reasearch (CSIR).

67. Including studies of the properties of building materials and the scientific study of the design and efficiency of buildings. Minutes of meeting 15/3/45 GES 2520 PH 11NA.

68. Hanson suggested that the had initiiated the later NBRI program of research by convincing CSIR that if the NBRI was to become effectively involved in housing, it would have to conduct research of a kind not normally undertaken by building research institutes ie: social research. Private discussion with Hanson October 1985.

69. NBRI pamphlet.

70. See Hanson,N. Vote of Thanks in SAAR 1943 p146.

71. See the documents produced by the Frankfurt Congress of 1929 organised by May, which are among the most important of all Modern Movement writing on housing, including fundamental essays by May himself, by Gropius, Le Corbusier and Bourgeois, as well as plansof apporved examples of modern housing practice published in Dwellings for Lowest Income Stuttgart 1933 (originally published as Wohnung fur das Existensminimum. See also: Gropius W Sociological Premises for the Minimum Dwelling of Urban Industrial Populations in Scope of Total Architecture London 1956 originally in Die Justiz vol 5 No 8

1929; Bauer C. Modern Housing London 1935 p141ff; Mumford op.cit p461.
72. By the Conference of the Technical Staff of the Directorate of Housing with the Department of Health. See Calderwood, D. and Connell, P. Minimum Standards of Accommodation for the Housing of non-Europeans in South Africa - NBRI Bulletin no 8 June 1953 p1.
73. Hanson claimed to have originated the project himself but I have not been able to verify this independently. He also suggested that he considered the reports to be his major contribution to South African Housing. Private discussion with Hanson 1985.
74. Reported at EXCO meeting 14/8/1947.
75. FFor a list of members see DS9 TThe Interim Report of the Main Committee Appendix I. The chairman of the main committee was Hanson the chairman of the sub-committee on the house design was D Cowin, G McIntosh was a member of the sub-committee on estate planning, Kantorowich was a corresponding member and the secretary for the entire project was Connell. Other membership was diverse, including representatives of the housing agencies, state departments, the Institute of Race Relations, and even some African members including Dr A B Xuma.
76. See NBRI series DS 1-9 Pretoria 1949.
77. See DS4 The Interim Report of the Sub-Committee on Estate Planning p.13 ff. This report was isolated by the main committee as one of the most significant, as indeed it is.
78. DS9 Interim Report of the Main Committee p1 and passim. The standards recommended in the documents were in fact higher than those pertaining at the time.
79. I am referring to the lack of any attempt to contextualise the specific features of the program, rather than suggesting the absence of contextual influence per se. The participants efforts were obviously prompted by the obvious pressure on South African cities of the development of a permanent African working class in the 1940s, by the visibility of the housing crisis, by the widespread publicity surrounding it and the developing political programs to resolve it, by the demands for post-war national reconstruction, and in some cases possibly also by self interest. But these influences had little effect on the form of the proposals.
80. "The... task of the Committee would be... to make recommendations based on the need to protect the health, comfort, convenience, and welfare of the population" and it would attend to the practical issues of implementation "only after the basic standards had been laid down." (emphasis in original) DS 9 op. cit p.2 & 3.
81. Hanson N EXCO (or CC?) minutes 24/4/1946)
92. There were however legislative moves in progress. Immediately prior to the change in government the cabinet had approved the direct intervention of the NHPC in sub-economic housing for Africans. See Dept of Helth Circular No.4 of 1948.
83. Minutes of EXCO meeting 15/7/1948.
84. Minutes of CC Meeting 30/9/1948.
85. The continuity is emphasised, for instance, in CSIR DR 10 Costs of Urban Bantu Housing Pretoria 1954 pp 1 & 2 and even in National Housing Office Minimum Standards of Housing Accommodation for Non/Europeans Pretoria 1951. p2.
86. DS 9 op. cit p37.
87. CSIR DR10 CCosts of Urban Bantu Housing Pretoria 1954 p.10.
88. Wilkinson P op cit (1983) p.78 and passim.
89.See Wilkinson op.cit. p.78 and Verwoerd Speaks p.45 "Orderly housing is a prerequisite of proper control, whereby vagrants and parasites who always flourish in slum conditions can be cut out. This scheme to house all

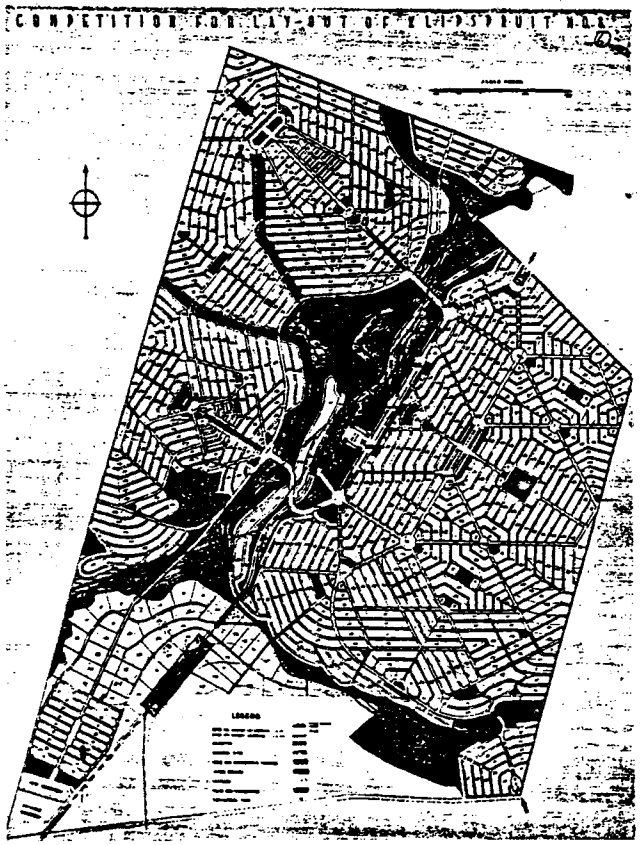
workers under control, co-ordinated with the control of influx which must be made effective by means of the labour bureaux,... will radically improve the conditions of the Native populations of the towns."
90. Verwoerd for example speaks of the necessity of regional planning for racial areas. Speech to Senate May 30 1952 in Pelzer (ed) Verwoerd Speaks p
91. See Wilkinson P. (1983) op.cit. p.74ff.
92. See for example memorandum entitled Extension of National Housing Schemes With Special Reference To Native Housisng Needs attached to letter Gluckman to Hofmeyr 9/1/1948 GES 2533 PH 38 NA.
93. See undated memorandum of the same name as not above identified as "First Memo" GES 2533 PH 38. It contained the argument that the NHPC could substantially reduce losses on 'Native Housing' then fixed at 30 pounds per annum per house.
94. Wilkinson (1983) op.cit. pg 76.
95. Speech to Senate May 30 1952, reprinted in Pelzer (ed) VVerwoerd Speaks p.
96. See UG 78 '64 p.4. TThe Nationalist housing program must be seen in this context. African housing was paid for by Africans and was not a 'social welfare' program in any normal sense of the term.
97. Mocke W - The Native Services Levy Act No.64 of 1952 Bantu February 1956 p.36.
98. Calderwood D Native Housing In South Africa p.12 and passim.
99. In a paper delivered in 1951 J Jennings, the Director of the NBRI, gave the objects of housing as the maintanance of health, social validity (design in such a manner as to eliminate "social malpractices"), the elimination of maintainance, and as far as possible the elimination of subsidy. By far the greatest percentage of research actually produced by the NBRI after 1949 was devoted to the last of these.
100. TThis was one of the first reflections of the restructuring of the housing bureaucracy under the control of the NAD.
101. Interim Report Of the Main Commitee NBRI Pretoria 1949 p.2 and p.18.
102. Ibid p.37.
103. Particularly with respect to the kitchen, achieved in many comparisons by reductions elsewhere in the house.
104. See Calderwood D and Connell P Minimum Standards of Accommodation for the Housing of Non Europeans in South Africa CSIR Costs of Urban Bantu Housing Appendix B p.1-2.
105. In fact there was one area where substantial reductions were possible, and that was in the substitution of cheap black labour for more expensive white labour. Since this idea had been mooted already in the mid 1940s it did not evolve in the NBRI, but the NBRI research did quantify its effects and devise methods for its rational implementation. Whereas so-called "Native craft workers" were 77% as productive as skilled labour, the comparative rates of pay were 2s 2p as opposed to 7s 4p per hour, i.e. 29.5%, which could result in overall cost savings of 13% of the prime cost of building, since skilled labour represented 25% of the total prime cost. See Glen A - Time studies of labour employed in the building of Urban Bantu houses, using Native workers on a Craft Basis - in CSIR TThe Costs of Urban Bantu Housing Appendix B.
106. NHC minutes 11/12/1944 GES 2434 PH 15.
107. These costs were then correlated with 'capacity to pay' in a more rigouous way than had been attempted before the NBRI produced a paper to highlight what the Director of the NBRI called "several fundamental misconceptions in the present approach to the Native housing problem in South Africa" (Jennings J - TThe role of Housing Research in the Provision of Housing for the Urban Bantu - CSIR Pretoria 1952, reprinted from Municipal

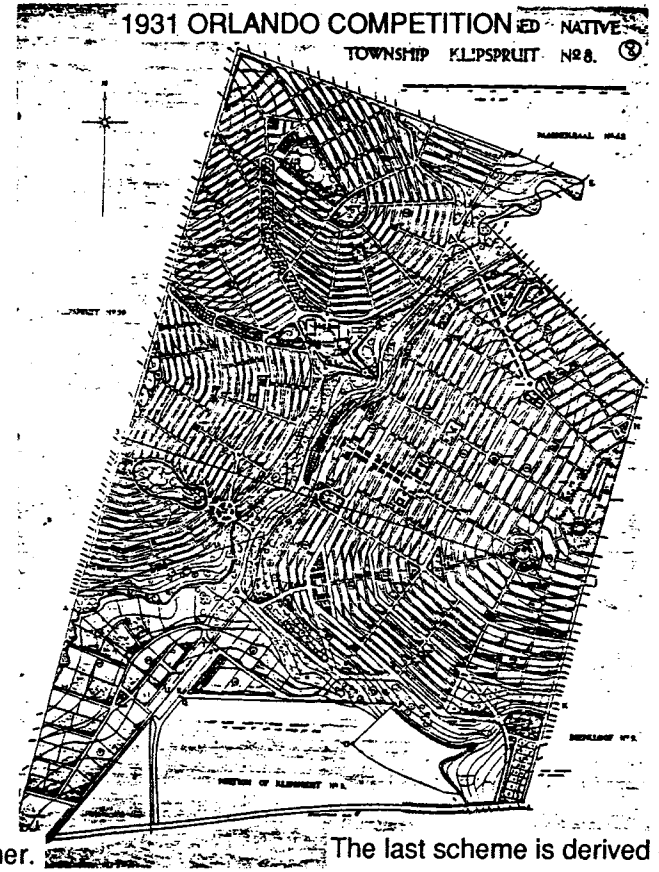
Affairs VI XVIII nos 205/6). This paper divided prospective tennants statistically into those (in terms of the set criteria) who could pay economic rentals, those requiring subsidised rentals, and those unable to pay rent at all. This provided the argument used by Verwoerd that there was no need for a subsidised housing program because only 12.9% of the sample surveyed fell into the sub-economic category, with the remainder divided between 40% economic and 46.7% unable to pay any rental at all, who could be catered for only by site and service schemes. Van Beinum H A Study of The Socio-Economic Status of Native Families in TThe Payneville Location, Springs NBRI Research Bulletin No.8 June 1952 p.8.

108. Calderwood op.cit. p.188.

109. CSIR op.cit p.2.

110. Tafuri (1976) op.cit. p.120.

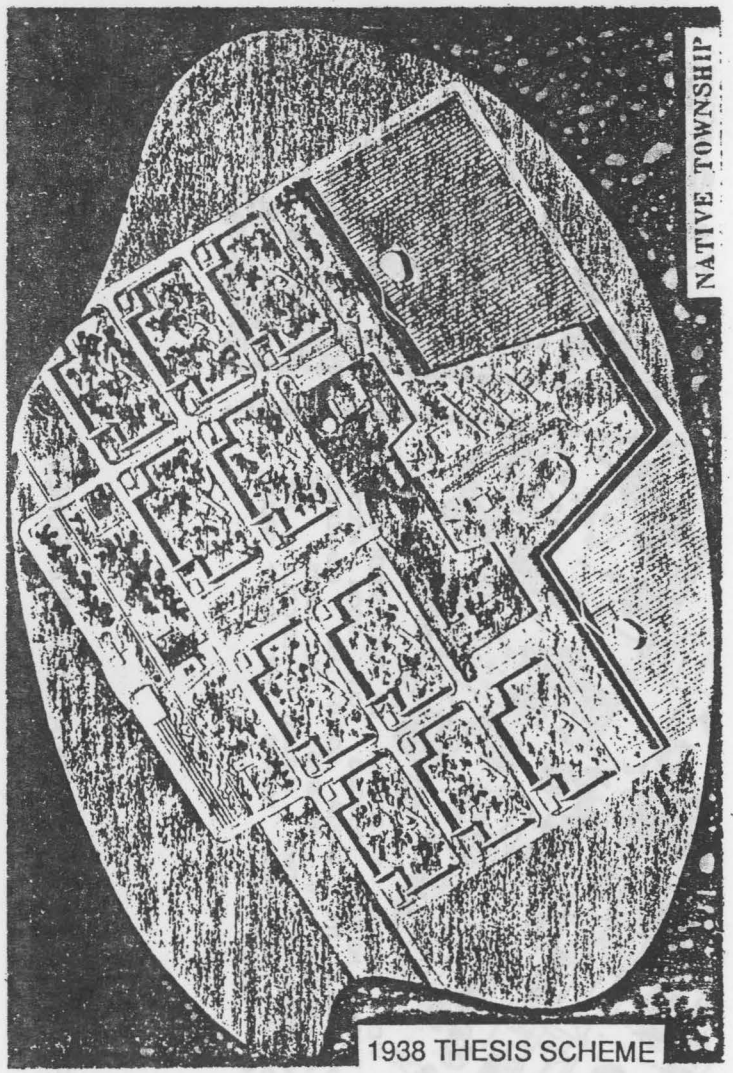




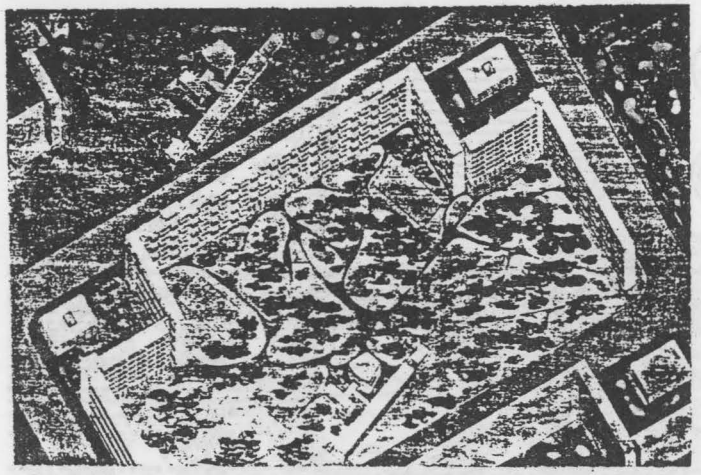


1. 1st place design by Kennedy, Kallenbach and Furner.
2. 2nd place design by Martiennesen.
3. 3rd place design by Rees Poole.

The last scheme is derived entirely from the City Beautiful movement and is related, for instance, to the plan of Canberra. The first two are unsystematic mixtures of City Beautiful and Garden Suburb ideas.

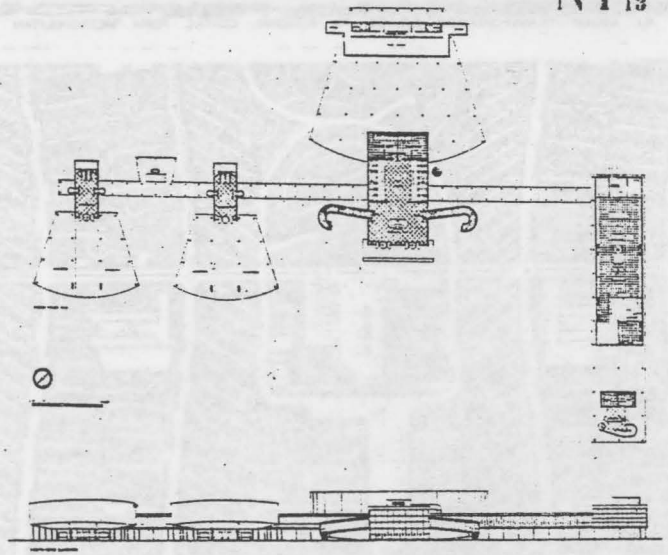


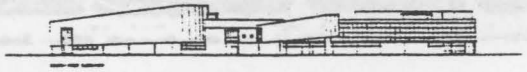
1938 THESIS SCHEME



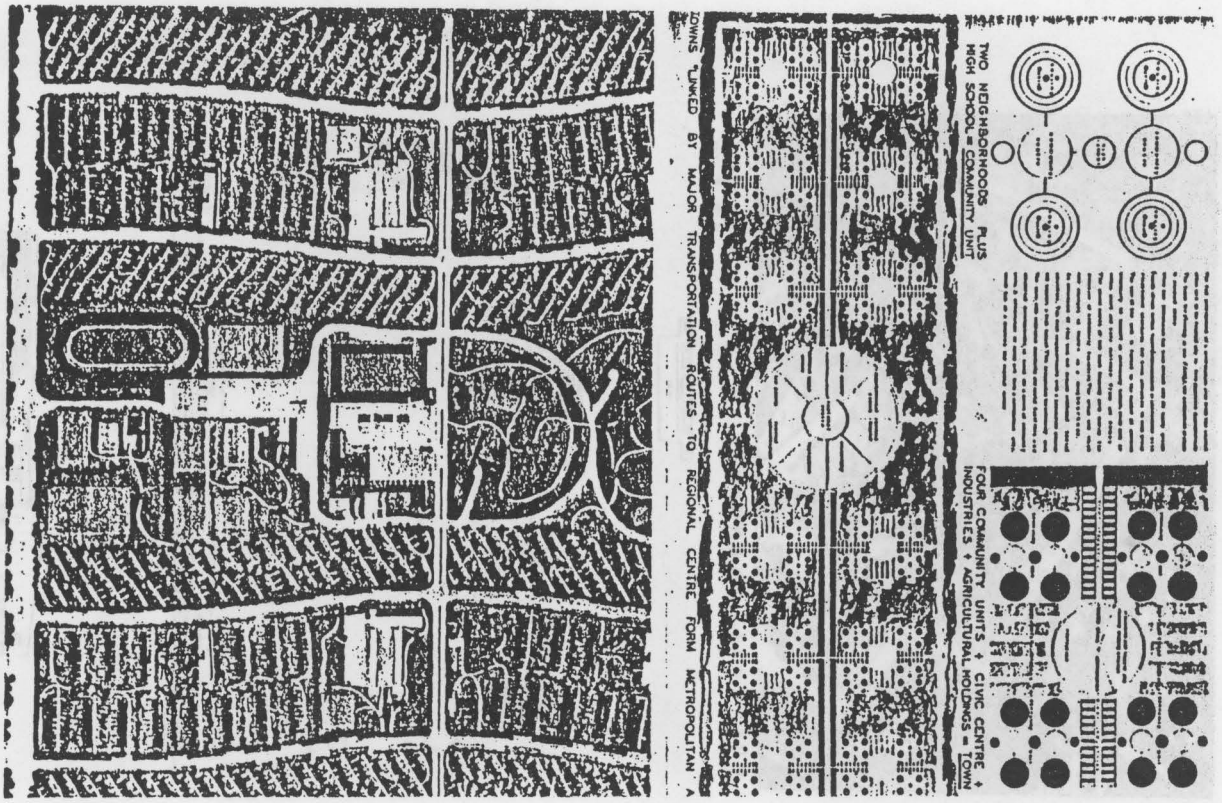
CULTURAL CENTRE

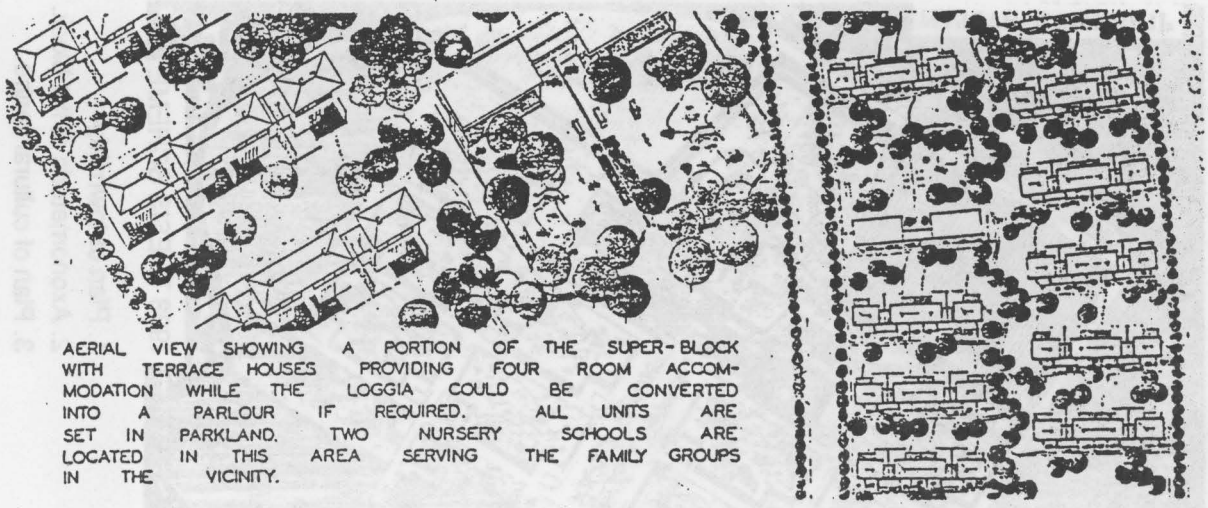
NT 13





1. Plan of township.
2. Axonometeric of flat block.
3. Plan of cultural centre.
4. Elevation of cultural centre.

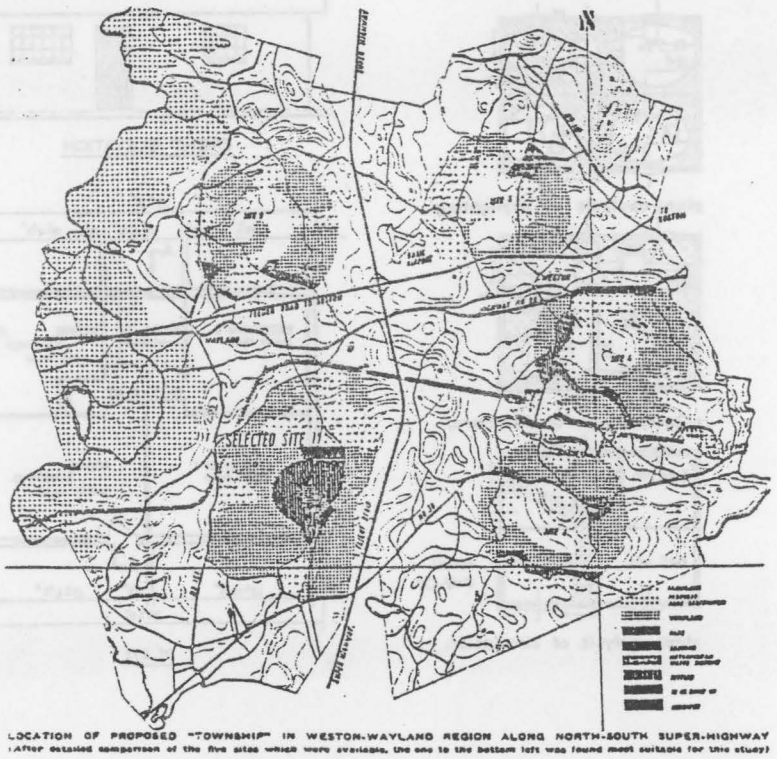




AERIAL VIEW SHOWING A PORTION OF THE SUPER-BLOCK WITH TERRACE HOUSES PROVIDING FOUR ROOM ACCOMMODATION WHILE THE LOGGIA COULD BE CONVERTED INTO A PARLOUR IF REQUIRED. ALL UNITS ARE SET IN PARKLAND. TWO NURSERY SCHOOLS ARE LOCATED IN THIS AREA SERVING THE FAMILY GROUPS IN THE VICINITY.

THE 1943 'REBUILDING SOUTH AFRICA' EXHIBITION SCHEME

1. Diagram of aggregation of neighbourhoods.
2. The layout of the superblock.
3. The layout of the housing.



LOCATION OF PROPOSED "TOWNSHIP" IN WESTON-WAYLAND REGION ALONG NORTH-SOUTH SUPER-HIGHWAY
(After detailed comparison of the five sites which were available, the one to the bottom left was found most suitable for this study)

SHEME PRODUCED BY STUDENTS AT HARVARD UNIVERSITY UNDER THE DIRECTION OF GROPIUS

1. Regional location of neighbourhood unit settlements.



PLAN OF THE FINAL LAYOUT

D. Baker, F. S. Coolidge, A. J. Donahue, R. N. Kuhlman, W. von Moltke, L. A. McMillen, F. A. Macomber.

2. Plan of residential neighbourhood.

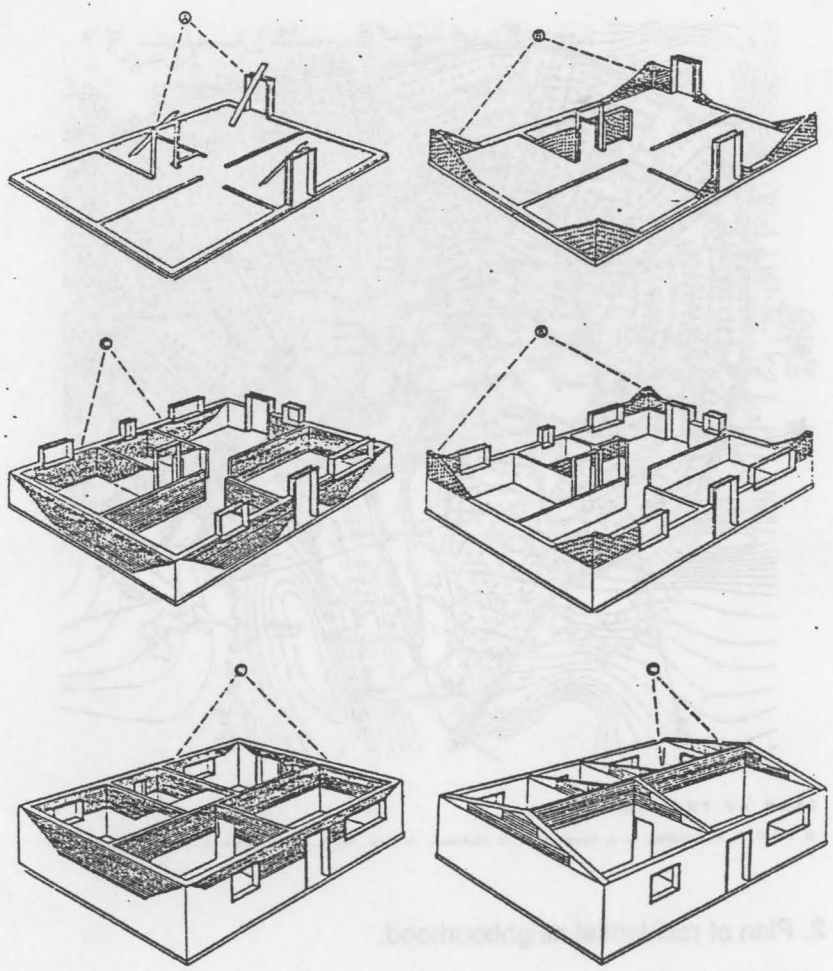
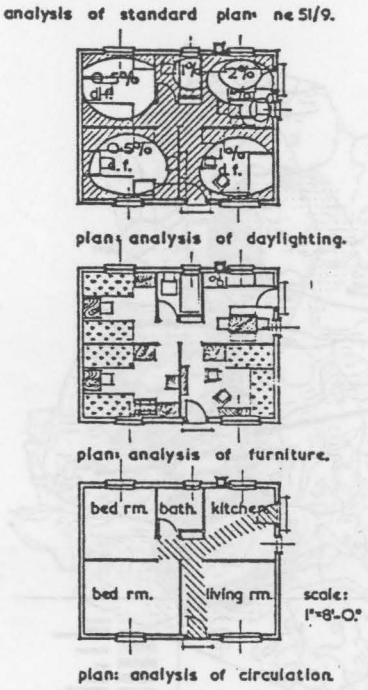
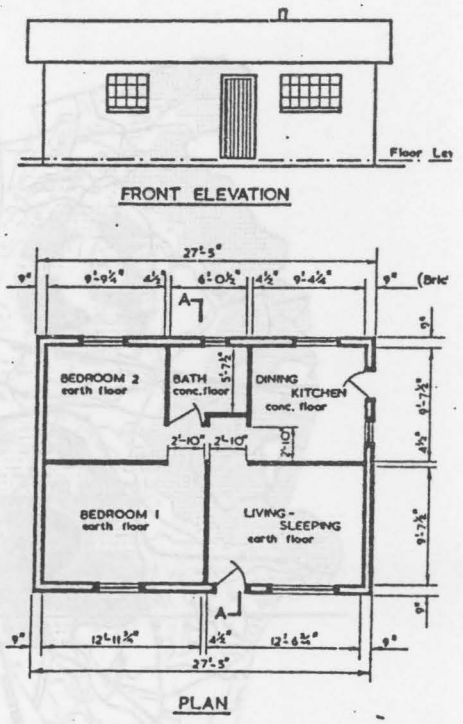


Fig. 24.—*NE 51/9 type house showing the six brickwork tasks.*

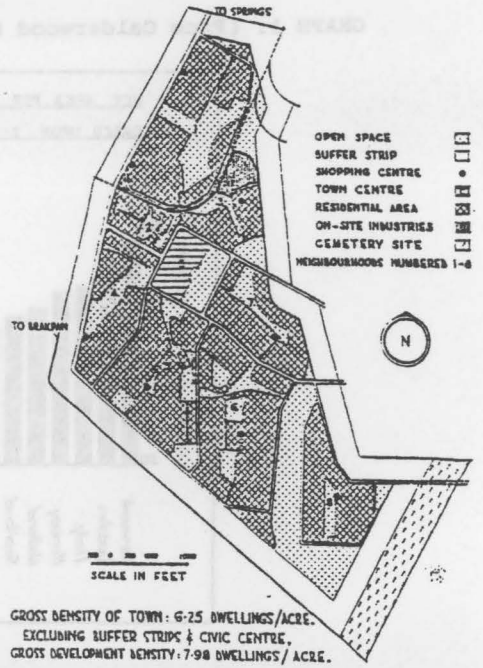
A — Class 1 operators.
B — Class 2 operators.
C — Class 3 operators.





THE NE51/9 HOUSE

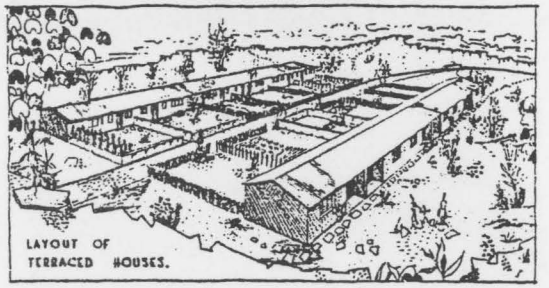
1. The rationalisation of the brickwork into classes of skill.
2. The plan.
3. The'analysis' of lightihg, circulation and furniture.

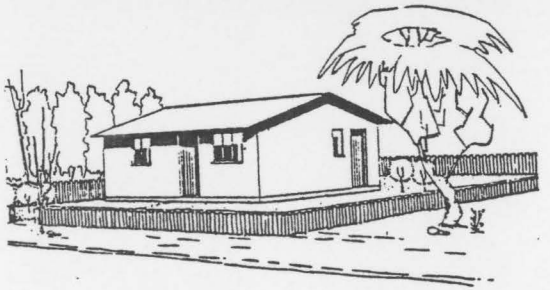


GROSS DENSITY OF TOWN: 6·25 DWELLINGS/ACRE.
EXCLUDING BUFFER STRIPS & CIVIC CENTRE,
GROSS DEVELOPMENT DENSITY: 7·98 DWELLINGS/ACRE.

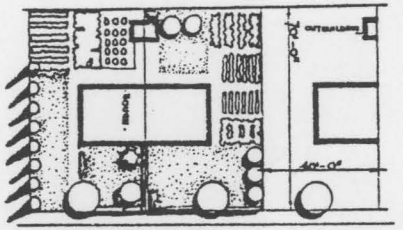


TOTAL AREA OF SITE = 278 ACRES
DEVELOPMENT AREA = 184 ACRES
GROSS DEVELOPMENT DENSITY = 6·24 DWELLINGS/ACRE

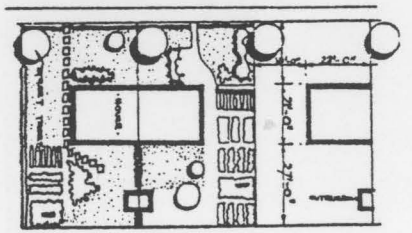




KWA-THEMA AND RELATED RESEARCH



· 26'-0" ROAD WIDTH ·



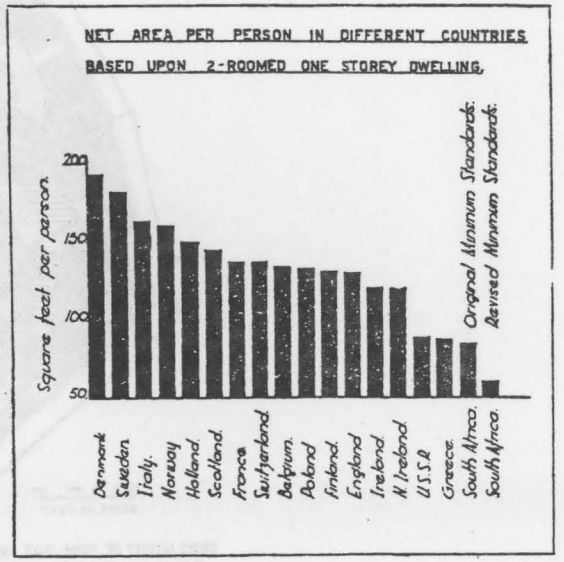
1. Diagrammaric layout of neighbourhood units.
2. Detail of the layout of a single neighbourhood.
3. Experimental scheme for row houses.
4. The NE 51/9 house.
5. The layout of house and garden.

TABLE 1: COMPARISON OF MINIMUM STANDARDS PRE 1949 AND POST 1951

		L	K	B1	B2	B3	T	MST	%I	%D
Atteridgeville	Pretoria	128		136	85		349	313		10
Atteridgeville		111	86	105	105	101	508	531	4	
Blackhurst	Durban	160	42	103	100		405	422	4	
Blackhurst		132	46	103	100		381	422	10	
Lamont	Durban	115	46	107	104		372	422	12	
Nyanga	C.T.	122	43	100	100		365	422	13	
Mcnamee Village	P.E	164		92	92		348	313		10
Orlando	JHB.	192		152	152		496	313		36
Orlando		199	102	148	125		574	422		26
Orlando		176	63	142	142	102	625	531		15
Pietermaritzburg		140	48	120	120		428	422		2
Pietermaritzburg		154	52	120	120	116	562	531		6
Sharpe Township	Ver.ging	100	91	100	91		382	422	9	
Stirtonville	Boksburg	154	70	106	102	90	522	531	2	

All areas except Blackhurst are from the illustrations in the Appendix to Connell P Sub-Economic Housing Practice in South Africa. Blackhurst areas are from SAAR 1943 p.137. All areas are given on plan or are from figured dimensions, except the area for the Blackhurst kitchen, which was scaled. L= Living; K= Kitchen; B= Bedroom; T= Total; MST= Approved Minimum Standard; %I= % Increase in Area; %D= % Decrease in Area.

GRAPH 1. (From Calderwood D and Connell P op.cit. p.13)



The Struggle for Housing - A Case Study

Elvis Daniels

Westbury Residents Action Committee (WRAC)

More than 20 years ago, the present residents of Western Township (Westbury Ext.3) were forced to move there under the dictates of the Group Areas Act. At that time, an undertaking was given that the area would soon be redeveloped.

In terms of development, all that had been built between 1960-1980 was approximately 600 flats, 120 row houses and some semi-detatched houses. These buildings were satisfactory in as much as they were of relatively good quality, had plastered walls, looked nice and were spacious inside.

After a long period, the city council began its redevlopment program in 1981. The people were told that a modern township would be put up, that conditions would improve and that this township would be superior to others.

However, it was soon discovered after building had started that the proposed houses were too small that people would not be able to fit their furniture into them. Each new house had a bath installed, but no hot water. The toilet was built inside the house, but was situated in a corner of the kitchen. Only the living rooms had ceilings and walls were unplastered concrete block.

Further, due to the housing backlog, the council should have recognised that more than one family were living per stand. Realistically there were a further 2 0r 3 families living as sub-tenants on every stand, renting back rooms from the original tenants. In essence the council was proposing to build a new township for the tenants, but were ignoring the problem of sub-tenant families.

From the beginning when the residents had identified the problems, they approached 'their' official representatives, the Government created Coloured Management Committee, and requested representation to the City Council to try and improve the situation, and involve the community in the planning of their township. A series of mass meetings were held in the township, where the reportbacks were never positive and the building continued.

Because of this dissatisfaction the residents met and elected an alternative structure (WRAC) to develop and articulate the demands of the community. What had started then as an issue around housing, ended up with the Action Committee being victimised by the Security Police.

Western Township at that time, was one of the few places in the Transvaal to suffer a heavy presence of both the security forces and the army, since it coincided with the national school boycotts, following the 1976 unrest. Despite the existing situation, people felt it imperative to take action against the potential slum that would result, and continued to call mass meetings to drawup memoranda and petition the City Council to stop building.

Nevertheless the Council continued with their building programme. They were constructing sub-economic type housing, which meant bagged brickwork, no ceilings except in the living room and no hot water, although electiricty would be supplied. The proposed rent ranged from R28 to R35 per month for two and three bedroom houses, offering only the basic structure, yet allowing people to improve on the houses themselves.

At that time, the average pensioner had a monthly income of R80; paying an average of R28/month for rent and R30/month for water, leaving only R22/month for living and improvment on the houses. The problems forseen had become a realtiy, because no one could afford to improve their houses and the area became a slum. Neither was it possible just to add on corrugated iron and make shift rooms, since the council insisted on drawings being made and the correct authority received, adding an extra cost to the process.

The community infrastructure was affected, since the people were not

allowed the choice of where to stay, which resulted in the breaking up of existing and longstanding social networks. Problems ranged from the structure of the houses, to the lack of communication and representation.

Marion Brindley a sociologist who conducted a study in the township, published a book, in which she stressed the need to involve the community in the planning process. An architectural research group made up of WITS students was asked by WRAC to assess the situation and to submit a report which would be sent to the council. Needless to say, this form of communication failed, and the residents were forced to take more drastic action. Eventually a meeting was convened between the residents and the council, and it was agreed upon that building would stop after the completion of the first stage of the contract (which already had been signed) of 350 houses.

Dr Daniels believes that his community had not made unreasonable demands, asking to be allowed meaningful participation in the planning of their township. "To us, redevelopment does not just mean having new bricks and cement, but that the quality of life of our residents should be improved."

Building resumed in April 1985. The lessons of 1981 seem to have been totally lost - once again, building started on houses without prior consultation with residents. The redevelopment scheme as proposed by Barnes, Hirschman and Woodhead, was based on a system of pedestrian courts, created by the staggering of housing lots. Each lot accomodates one car, which passes through the courts in which children are expected to play.

On paper, the urban proposals appear sensible, in practise, totally inappropriate to the Western Community. Based as they are, on the successful 'Woonerf' System developed in Holland, they bear witness to the abyssmal failure of transporting such principles to another context, without first examining the differences. Western is a car based and not bicycle orientated community and the mode of community security, as in the relationship of kitchen to the street was not fully examined. Had participation planning been engaged in right from the start, these would have become apparent. Two and three bedroom houses were proposed, again without ceilings and with unplastered walls; rents had increased from R80 to R100 per month and the stands had been reduced from 170 square metres to 135 square metres with little space between houses.

The residents started protesting and holding meetings. On one occassion, people gathered at the building site and began shovelling earth back into the foundations. The wall of houses were broken down. Because of the delay that these actions caused to the building contract, the City Council agreed to meet with the residents. The 'Minister' of Housing, David Curry, was called to Johannesburg to intervene.

On touring the building site, he was met by an angry crowd of residents, at which point he turned tail and fled. Frustration was then directed at the parliamentary representative of the area, and his house was stoned. Weeks of unrest followed, culminating in the stoning of cars and buses on Ontdekkers Road.

At this point, the Director of Housing for Johannesburg, Mr Willsnach, agreed to attend a mass meeting to discuss the problems. A short period of constructive communication between the Council and the Community followed, before the State of Emergency was declared, which again gave the council the upperhand. The building then carried on regardless.

This sparked a new wave of unrest. A school boycott was called, and in confrontation with security forces, the residents not only suffered casualties but detentions as well. Finally, on the 2nd Sept at a meeting of the Technical Subcommittee of the State Committee of Johannesburg, WRAC was 'invited' to submit a proposal for the redevelopment of the area for consideration.

WRAC engaged the Architects Collective to assist the community in putting their ideas down on paper, and a planning office was established in the community hall. In preparing plans, in working with all groups of residents, it became clear that not only were most people unable to read

a plan, but that it was the first time ever that they had an oppurtunity to say what their housing requirements were.

In the space of a few weeks, draft plans were produced and accepted by the community at a mass meeting on the 7th October (for the planning process see 'Who is the South African Client part IV). These were presented to the Technical Sub-committee for Johannesburg on October 17th were they met with a positive response.

One of the perculiarities of this community is that most of the legal tenants, the original residents of the 1960's, are now pensioners, older people without formal education. Most of the exsisting houses, now accomodate registered sub-tenants, of the extended family of the tenant, who are also entitled to housing when it becomes available. With the present land shortages, as determined by the Group Areas Act, such housing is available but only in new areas beyond the periphery of the greater Johannesburg region. Thus the redevelopment of Western must realitically accomodate existing households as they are. Overcrowding becomes a built-in condition, as long as the existing allocation of land remains.

On the 7th November, at the next meeting of the Technical Sub-committee, the council appointed architect, Mr D. Hirschman, of Barnes, Hirschman and Woodhead presented a set of revised plans, based, he acknowledged, on the proposals of the Architects Collective, whom he regarded as WRAC's consultants. By proposing the adoption of these new plans, he hoped to save his scheme with a minimum of delay to the building contract. Here one must make the observation, that while the Council appointed architect can make proposals that radically alter his scheme without cost implications being discussed, the proposals made by the community were continuously rejected on the basis of the increased costs they would incur.

At this same meeting, the Architects Collective were categorically informed that they would never receive an appointment by the council. The Collective, which had been engaged by the Community, presented the Johannesburg Housing Department with the ideal opportunity to remedy the situation, by not having to consult with the community but be presented with the information to alter their own proposal. This approach not only bought them time, but allowed them to continue with their proposal as they had previously defined, but with minor alterations.

Subsequent to the Congress, Mr Hirschman laid a formal complaint, to the South African Council of Architects, against the Collective for soliciting. The Collective, after submitting affidavids, as required, in response to the charge, were further charged with 'competing for work' by the Council and the case was referred to the Disciplinary Board.

The fact that this issue even went to the Disciplinary Board points to the serious failings within the stipulated codes of conduct and professional practise. Here, the Architects Collective were acting as the agents for the Community, appointed by them and accountable to them, as opposed to an architectural firm appointed by the Johannesburg Department of Housing, who not only did not consult with the community but prescribed the solution. Undoubtedly the terrain of housing has moved into the sphere of community consultation and accountability, to meet the demands of the users, and yet the code of conduct cannot accomodate this shift in terms of professional practise.

It raises an even more serious question, as to the nature of the accountability of architects. It is quite clear that there has been a political shift in this country, and as more and more communities begin to take control over their own lives, they are demanding to participate in the affairs that directly affect them. Consultation and accountability are the direct spin-offs of these developments. Architects can no longer act only as the agents of the State Housing Departments or Capital, when they fashion the environment of people. Their concern should lie ultimately with the needs and aspirations of the people, and its to the people that they should be accountable.

This project had been characterised by a recurring and underlying source of conflict. The community wants decent housing at affordable rents. The council wants to develop what is clssified as a slum area in a specific time with limited resources. The people want to be a part of that

process, the Council is detemined to work through the Government created structures - The Management Committees etc. Inevitably clashes have resulted.

On the afternoon of the above meeting the City Council closed WRAC's Planning Office and disallowed the use of the community hall for mass meetings. When WRAC threatened to use the building site as an alternative venue, the Council hastily aquiesed, having unpleasant memories of previous meetings.

Finally at the State Committee meeting for Johannesburg, the following WRAC proposals were sanctioned;

1. That a range of 8 new house types and a revised layout would be developed in conjunction with the community.
2. That a planning office should be retained to do this, and that show houses should be built to assist people in choosing their house types.
3. That only residents of the area should make decisions about the redevelopment.

Three weeks later, the City Council having agreed in principle to build show houses, instructed an official on site to explain the proposed house types via plans to people, only if they agreed to sign for a house there and then. Once again, they have adopted a pre-emptive process, which only barely presents the appearance of participative planning.

Rising costs of the development are all borne by the residents of the area. The city council hopes to recuperate the costs of the project by means of the rent for the new houses. Once the process is complete, what the rents will be and whether the tenants will be able to afford them remains to be seen.

At present, about 40 houses of the existing redevelopment scheme are nearing completion. Once they are filled, the council will have more land on which to continue building. WRAC feels sufficiently assured that the community it represents will not move into these houses until they find them satisfactory. The council seems determined to fill the houses, even if it means moving in people from other areas.

As Dr Daniels said; "it is long, hard work, to convince people to stand together." And standing together is what the residents of Western Township will do, taking whatever action they have to, expressed by one member of the community. "We must be radical ... violence (sic.) ... then they listen."

This paper is comprised of extracts from the talk delivered by Dr. Elvis Daniels at the congress, and two proposed articles for the Weekly Mail by Lindsay Bremner.

Still on the Edge

Rodney Harber

When the students in this room reach retirement age (if architects ever do!) the estimated black population of South Africa will be ninety million. The 'other' races wouldn't have even doubled ! The vast majority of the population will be poor, clinging to the edges of primate cities and surviving on a low order of services. Architects always quote Calcutta but even today there are hundreds of squatter shacks in bushes, within 'White' Durban. People sleep openly in the streets at Warwich Avenue and a community survive, in concrete pipes, a few hundred paces from the Natal Command Headquarters, on the beachfront. Are architects going to PFP (Pack For Perth) or seize the oppurtunity?

The days of vast prebuilt ideological 'townships' are over, clean highway verges are going and carefully trimmed public lawns will follow. As the extent of the former social engineering becomes apparent so resources are being redistributed - many black people now enjoy substantially higher wages so are expected to cater for themselves '(and even commission architects) and there is increasingly less gravy left over to maintain the decorative manifestations of separate development. Durban is renowned for its parks - the Parks, Gardens and Recreation Department enjoys a greater budget than all the Development and Service Boards in Natal,combined. The latest Government Regional Development Councils are an official endeavour at controlled, local redistribution. Paradise is closing down.

Are we prepared? Technically our European textbooks teach us to build at over R500/m. Whole settlements in the Transkei are being built for R35/m. The 'N.E - 51/9' house costs about R9 000. 'Jap' houses in Mgaga, made from recycled Toyota crates, are built for 3% of that amount. Probably a third of a million people in Metropolitan Durban live in houses made of recycled beer cartons. Eighty percent of South Africans use mud, in some form, in their housing, yet where do we find simple techniques of building with stabilised earth, in our McKay, Mitchell ...?

Are we prepared ? Socially the townships are based on the English Garden City. Cultural imperialism, with little separate boxes, roads for cars, streetlights, neighbourhood units, 'public open space' ... Spontaneous settlements around Durban offer an entirely different perspective, the medieval labyrinth with its inherent surveillance system, the value placed on 'yiceke' - defined space, the low energy and saving of resources. There is a danger of romanticising poverty but surely we could listen and find a meeting place, somewhere near the middle ?

Are we prepared ? Politically it is easy to be a 'development tourist' characterised by brief sorties into the shacks, plenty of colour slides and washed down afterwards with a pub lunch. What are 'townships' like after dark, what is it like to sleep on a grass mat, to spend two hours a day fetching water ? In the last year three buildings I designed have been razed in political turmoil. It's time architects got more involved with political situations and lived on site, discovering community architecture.

The gaps are too wide to ignore. Water above the Umgeni dam site in Inanda, Durban, costs three times as much as it does in Inanda, Johannesburg - and it has to be carried away. At Malukazi, 26 000 people shared a set of taps - considering you probably have between twelve and sixteen taps in your homes, imagine one third of a million people queueing outside at dawn, with plastic containers on their heads, to draw water.

I'm not suggesting that you must all throw away your shoes and become barefoot architects. My first rural building cost R14 for both labour and materials. The fees at 6% were 84c ! - not a quick route to a new Mercedes Benz.

Surprisingly, ultra low cost buildings usually demand superior technical expertise to conventional designs. Appropriate sanitation is very difficult compared to flushing it all away in ten litres of purified water, as detailed in the textbooks. An Escom cable isn't always hovering on the boundary. However the oppurtunities for fulfilment mustn't be ignored - imagine a new Citadel for 100 000 Zionists, innovative recycling, formulating 'by-laws' for a shack development or building a house for grateful people, costing half the amount of a metropolitan fee account.

We must move from the edge and find that generous meeting place, somewhere near the middle.

Who is the South African Client?

There is no formula for educating architects, many methods have and do exist concurrently, and yet no single one can be isolated as being more successful than another.

In the South African context the schools have, up until recently, operated along broadly similar lines, eminating from the fetish of having identified building types that fit within the 'so-called' definition of architecture, which is directly related to the identifying of a specific market or client. It was the intention of this talk to challenge the parameters placed upon architecture practise by the schools.

Andre Hodgkins

Andre's work, mainly of a domestic nature, relied heavily on a slide presentation to get across the visual quality he relies upon- a magazine type architecture offset by the dramatic Cape setting in the background. His somewhat esoteric design philosophy reads as follows; "complexity within a basic simplicity; formality; precision; extravagence; celebration; Romance; pathos and fantasy!"

As all architecture that relies on its visual qualities, little can be said of it, with the written word. A consistent theme is evident in Andre's work, with the frequent use of colour as a design tool, and recognition of and respect for surrounding typology. He failed to identify a typical South African client emerging, yet did recognise certain trends: -

1. The confusion of ideas
2. Misunderstanding of the design principle
3. Pursuit of a singular identity, by not keeping up with the Jones's but by being the Jones's.

Peter Rich

In talking about Elim Centre, the "Mistress(sic) of the Highveld in the land of the Shangaans and Vendas", Peter emphasised the following points:

1. "The lip service we pay about encouraging the African to enter the Free Market System".
2. "Of trying to respect the demands of this client (African) in his(sic) attempt to get something built."
3. "A plea to bureaucracy to stop its nonsense and its red tape to actually make initiative possible."

The client through his history and experience wanted to put something back into the land, demonstrating that the African can not only take the initiative, but also provide work for the people. The client not only had the will to build, but also held to freehold rights and title to the land (which he had bought from a white man), and it had not yet been incorporated into a homeland.

Before building, or for that matter, designing could begin, a preliminary report had to be compiled, together with an application to incorporate a BP petrol station, and one for a liquor license to permit the inclusion of a bottle store.

The design concept has developed from two major sources. Malawian buildings about which Vaugn Burns writes, and cross-ventilated verandah Colonial dwellings. The sloping site provided the clues for the development of the plan, with armitures that either grew or didn't, in response to the already existing informal sector's needs.

The most relevant technology was that of brick, which led to the establishment of our own brick industry, producing concrete blocks using the old press, which we now supply to the government.

The colours of the building were inspired by the dresses of the African women in the area, whilst we are still encouraging community groupings to come and to create their own murals around the building. Thus through the use of paint, a relatively humble building has assumed a grand quality.

People in the community were excited by the mutual exchange of ideas between architect and client, far removed from the hand-down

approach of the government and development board. However, being involved with a largely illiterate grouping led the architect to be involved in a more facetted way; publicity campaign, bumper stickers, T-shirts etc.

Dexter Moran

In South Africa a very stereotyped architect is being produced. He (sic) is a designer, but there is a larger concept of what architects could and should be doing.

Architecture can be seen as a service industry; you have a group of clients at any level, for whom you do work. If you want to satisfy their needs, you need to be more than a 'basic designer'. To draw an analogy, we could look at a restaurant, in which one goes in, chooses a meal and then eats. Sadly, architects treat their clients in such a way, that the client peruses the menu, and is then served something complete different.

"Being an architect can be a handy experience, and one needs feedback expecially having been in practise for a while." Although personally having been involved in many spheres of work, I'm going to focus on the Commercial Aspect of architecture, which should provide a balance to what the other speakers might say.

Entrepeneurs, "self-made men or women", generally have a vision that they make work. They have fixed ideas and know what they want. More importantly, they employ people. It is unfortunate, that in the current South African situation, it is these people that are emigrating, resulting in less oppurtunities of employment.

Architectural practise is analogous to salesmanship(sic). Architects are very good at organising their ideas, using models to help persuade the client (ie: helping them to understand, and increasing their participation).

Similar to the entrepeneur is the indulgent client, who is often quite loose and not insistent. They often don't give briefs, but an idea (ie: create a Picasso). This type of client really only participates when the interior of the building is concerned.

Todays investors are generally quite conservative, which is reflected in the buildings. Unbuilt architecture is very intangible (ie: the client can't really conceive it), which means they are likely to order something they've seen before, and hence is difficult to sell something different.

Working with the Corporate Client, the architect often has to produce something they don't like, even though a certain amount of creativity is involved. It is important for the architect to create a rapport with the client, not only to explain how the building operates, but also to try and broaden the clients ideas. Although the conservative nature of these clients can be changed, I believe architects view them as thorns in their sides.

The property developer is a different kind of client. They make fast and much money out of building a building on paper, and then selling it to financial institutions, looking for a secure, risk free investment. People in the institutions often don't want to go out and do the work themselves, they want it brought to them on a plate. They build for X amount and then capitalise on the rental. Its important to understand the parameters in which these people work, enabling them to create better buildings and to be good developers.

Too many architects simply churn out the same square boxes and buildings. You must decide on your morality, and at what level you are going to make architecture. Are you simply going to be a package dealer, or are you going to expend more effort and time into making something you believe in?

In my mind, the most difficult client to deal with is that of the Committee. Its very difficult to address a group of people on your ideas, when they don't have the mandate to make decisions, and need to go away and then lobby support. Often the ideas go through some form of change, especially when the finance still has to be raised. The question still remains, which I cannot answer for you. Do you want to be facade designers, or do you foresee another role for yourself as an architect?

Marc Feldman and Simon Radcliffe

It has already been said tonight, that 11 Diagonal Street is a building which perhaps hadn't taken cogniscience of its context, and its context that I want to talk about, albeit a context of a different type.

As architects we live and work in a social context which we cannot ignore. If we are to assume our full social responsibility we need to understand this social context. Understanding it on its own is not enough. I believe we should be attempting to change our society. The tools of analysis for understanding the fundamental relations in society derive from marxist methods of class analysis and historical materialism. Our starting point is therefore that of our consciousness - the means by which we understand is product of the material world. This assertion could be counterposed with an idealistic approach. We assert the opposite ie: that matter derives from consiousness. In any scientific analysis what we aim to do is strip away the superficial appearances of things and penetrate their essence. To observe and describe is not sufficient in attempting to understand what lies behind these phenomena. To give you a rather trite phenomena, the sun appears to revolve around the earth, but in essence we know that the earth revolves around the sun.

Historical materialism examines aspects and tendencies and laws of social development. It provides us with a method of investigating social phenomena. It allows us to see social devlopment as a dialectic, dynamic and changing procedure, which action and reaction, thesis and antethesis are constantly inter-relating. Fundamental to the existence of any society is the way in which it produces commodities necessary for its survival. Examining the path of history we are able to identify several modes of production which are the defining characteristics of historical epochs. The social structure of society and the social relations between all the various agents in society are built upon this economic base. It is this class struggle between the various antagonistic groups or classes in society that is the matter which drives history eg: we can see how, through the struggle between serfs and lords the feudal society developed into capitalist society.

Today in South Africa, we find ourselves in the capitalist mode of production (mop) where the fundamentally antagonistic classes are capitalists and workers. We are in the process of moving into a new and higher form of social organisation ie: socialism. The primary contradiction in our society that between capital and labour is overdetermined by a sense of secondary contradictions. The articulation of the struggles being waged at all these different levels, economic, political or ideological is a very complex phenomenon. I will briefly attempt to highlight some of the recent struggles in South Africa in an attempt to give us an insight into our current conjuncture.

In South Africa we have a situation where the fundamental relations of economic exploitation are marred by the process of class power. This is exercised by the dominant classes in our society through a variety of institutions and practises. Class struggle occurs at all these levels. Over the past 10 years we have seen how these points of contradiction/conflict have generated organisation amongst the exploited and oppressed. The shortage of houses, high rents and conditions in the townships have generated civic organisations. Inadequate and inferior education have generated the formation of student organisation and low wages and poor working conditions have generated trade unions. Most of these organisations have not had their problems addressed. They have realised through the process of struggle that long term solutions are only possible through the radical transformation of South African society. A spontaneous wave of strikes which hit Durban in 1973, precipitated union organisations. By 1980 unions began calling on other organisations to support their struggles being waged on the factory floor, through consumer boycotts. Union organisations are based on principles fundamental to democracy of mandate and accountability. Factory shop stewards represent 20/25 workers, they sit on a shop stewards committes which will in turn elect reps to a branch committee, which in turn elects reps to a regional or national committee. At every level reps have to have mandates to attend meetings or for a course of action they may take, which they report back

on. This even provides the oppurtunity for workers to participate and shape the activity of the union. We are beginning to see township based civic organisations operate in a similar way. Each street has a committee of people from houses in that street, this committee elects reps to an area committee, which in turn elects reps to the main committee of the civic organisation. Such structures enable people to respond to the feelings of people at a grass roots level and provides a way of organically linking the organisation to its constituency. Housing has generated intense conflict over the past four years, where residents of eg Western Township, KTC, Crossroads amongst others, have fought pitched battles with the authorities over their right to decent housing.

By the end of 1984, we have a situation in South Africa where 10's of thousands of children were boycotting classes nationwide. Issues and demands specific to students began to broaden to take up civic issues. The ongoing school boycotts, the collapse of the community councils, bus boycotts and the increasing number of clashes in the townships, began to strip away the veneer and showed the lengths to which apartheid and capital will go to ensure its survival. Many townships now have become ungovernable, no go areas for the authorities, a qualitative threshold has now been crossed, where people are now beginning to assert their control over their structures in the townships and over the things which effect their lives. This process of establishing popular democratic control is in embryo, but provides us with a glimpse of what a new South Africa might look like.

The government has not attempted op resolve the structural problems in South Africa. It has found that its attempts have only given rise to new conflicts. The intense conflict has also been precipitated by the economic climate which include retrenchments, low wages and poor working conditions. We are beginning to see our society in a process of transformation. This is a complex dialectical process which cannot be predicted, but is dependent on the relative organisational strengths of the classes engaged in the struggle. None of us can remain neutral in the struggle which permeates our society. We have to decide whether we side with the dominated classes or not. If we do take sides and if we do decide that we are participants in the struggle for change in our society, even this reqires a radically different approach to architecture. Our practise must change and there are a number of prerequisites which we must abide by.

Firstly, it must be democratic in the true sense of the word. It means we can only work on a mandate by the people whose lives we effect by our actions. Throughout our work we must remain accountable to them.Secondly, we must not see buildings and products as ends in themselves. we must see the process of making buildings as one emphasis. For it is not the buildings themselves, but social relations which change society. Thirdly, we need to stop working as elitist individuals with the impression that we know what is best for people.

A group of us started our office in our 4th year of study, offering our services to development oriented organisations. The basic thesis was to determine the demand and nature of the architectural service required by the majority of people, as opposed to the ruling class in South Africa. Working clearly with the interest of the people, rather than that of capital, necessitated the rethinking of the skills we had learnt, and led to the developing of an approach and process that facilitated the intervention of architects in the social context.

One of the schemes we were involved with, was the building of a 'blind unit' in KwaZulu. It was important that the unit be integrated socially and economically within the community itself, and not set up as an independent institution. it was sited to allow not only the blind, but the sighted people as well, to take control over their lives and working environment. It was set in a rural and underdeveloped area, characterised by the lack of self generating activity and a distinctive tribal infrastructure.

An appropriate technology was sought, which could generate some form of social and economic self-sufficiency. By extension, it was important to locate the materials within the community, utilising their traditional building skills and labour, so that they could retain control over the materials of productivism.

In summary, our involvement with the project was to redefine the brief, to document the physical and social fabric, the urban planning of the settlement, sketch plans and drawings, and finally the supervision of the buildings and technology.

Another scheme, in which we were involved, as the Architects Collective (still to be registered), was the preparation of a proposal for the redevlopment of the Community Environment in Western Township. We had been approached by the Western Residents Action Committee (WRAC) to assist them in articulating and preparing their counter-proposal to the Johannnesburg Housing Department, who were at the time, in the process (with an appointed team), of rehousing the community in an unacceptable way.

WRAC is structured in a way to foster democratic discussion, participation and decision making, working through street and area committees. It was necessary for us as the architects, to gather information, make decisions and get proposals sanctioned.

The value of the process, is that it not only generates participation of the community and the user, but also facilitates designing the buildings in accordance with individual and community aspirations and demands.

It is important to note here, that we were not simply dealing with housing, but also with the political process. Political in the sense of a redistribution of power, allowing the community to take control of its environment.

The structures for participation and communication were:

* The development and distribution of questionaires, to establish the community's demographic structure and demands.
* Weekly meetings with WRAC to discuss and criticise ideas, proposals and strategies
* The establishment of a Planning Office in the township, open daily from 2-7pm*, to act not only as a resource centre, but to encourage one-to-one contact with the residents. The office also provided the opportunity for residents to select the home type of their choice and property before construction began.
* Staffed by WRAC committee members and architects
* Mass meetings to report back to the residents on progress and to formally sanction proposals.

Collectively we came up with various concerns and principles concerning the design of house and community. Some of which were;

* Housing should be seen as a resource to allow for growth, which would influence the size of the plot
* use of the various sides of the plot
* influence of the car
* influence of the yard
* the proportions of bedrooms
* concept of privacy
* space standards
* specification of finishes etc.

The conclusion of these concerns and principles formed the basic demands that the community and architects presented to the authorities. Some of these demands have been met, but the struggle continues to achieve the others.

A third scheme in which we were involved, this time as part of the organisation PLANACT (a group of multidisciplined professionals - architects, planners, social scientists, engineers, economists etc) was concerned with Langa Township located outside Uitenhage, in the Eastern Cape.

Langa is a township which borders on the white residential area of Levydale. After the Massacre in March 1985 and the resultant unrest, 350 residents of the white suburbs petitioned the government, demanding that the Langa residents be relocated in Kwanabuhle, a nearby township.

Soon afterwards, 426 families of Langa closest to the white suburb were served with eviction notices. Residents from all over Langa met, and elected a delegation to liase with the local authorities. They were adament that they wouldn't be moved, and called on the government to upgrade the area instead.

PLANACT was called in by the community to substantiate their claim that the township could be upgraded, and were asked to put forward their proposals for upgrading.

A survey was carried out in the community in order to obtain the necessary demographic information. The following was established:

* That there were 8 000 families living at a density of 330 persons per hectare.
* That the size of each household was approximately 6 persons.
* That over 50% of the people in the area were under the age of 25, while 33% of the population was of school going age.
* That 54% of the economically active people in the area were unemployed.
* That the average family income was R180-00 per month, while it had been recently established that the household subsistence level for that area should be R307-00 per month.
* That of the 7 000 houses in the area, 1 000 were formal brick houses. The remaining 6 000 were built of timber and zinc sheets.
* That an average rental of R20-00 per month was paid, with an additional R20-00 per month service charges.

The survey showed that Langa was a stable and well organised commuity. The civic was along the lines of the one outlined in Western Coloured Township. Community facilities were bad, with one small clinic, no schools and a number of uneven sports fields, 1 tap per 1 058 people, pit latrines, poor roads and poor storm water drainage.

The survey asked people to prioritize their demands, to be used as a basis for the planning proposals. These primarily related to services and lack of facilities, with the quality of housing figuring as a lower priority.

Langa was found to be well suited to upgrading, for the following reasons:

* it has a strong and democratic community organisation
* its existing dwellings were of good quality.

The upgrading proposals were based on the following principles:

* the community has control over all the important decisions related to the process, and has control over the way in which funds are spent
* whatever is proposed, should be affordable to the existing tenants
* Sufficient land should be available, and that all the economic benefits of the upgrading process should be retained in the area,and that tenure be secure.
* the proposal for an emergency up-grading of services be undertaken - a process which would last about 2 years - and an ongoing process continuing from this.

The important point of the propsal is that it is not finite at this stage, and is constantly subject to evaluation by the community as a whole. The proposals and survey were put together in a comprehensive document which was workshoped with members of the area and street committees, and made public at a press conference held in the area, providing the community an oppurtunity to tell the authorites and the 'world' what its demands in relation to this document were.

The struggle to have their area upgraded does not depend on the planning group, as this process is under the control of the community. An upgrading committee is being elected from the street and area committees, and it is to this body that the planners will be accountable, and from this body that they will derive their mandate.

Subsequent to the congress and the presentation of this paper, major developments occured in Langa township, in which the authorities through methods known to themselves moved the 426 families to Kwanabuhle, which points to the fact that the iniquitous apartheid system is far from dead. The struggle to upgrade Langa township by its residents, continues.

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DIAGONALSTR

THE DEAD CITY DAY 4

DAY FOUR
THURSDAY
APRIL 5

0900 0900
MONUMENTS
AND
MONSTROCITIES
PJ DELPORT OH YES PJ DELPORT

TEA

MONUMENTS TO THE DEAD
H. VITRUVIUS LE ROUX
PRESENTATIONS AT 1100

KILLED TOWNS
CHRISNA DU PLESSIS

UCT STUDENT
1100 PRESENTATIONS

1300

1400 1400 1400
100 MISSED OPPORTUNITIES
FROM PARKTOWN: DAVE CLEMENS
FROM JHB CBD: NIGEL MANDY
but he says: Dynamic Johannesburg, despite missed opportunities.

AND YET AGAIN
TEA
1500

1600

VISUAL INPUT OF INTERNATIONAL PEOPLE PLACES OR BUILDINGS, THAT HAVE BEEN RENOVATED/REUSED
MARYBETH McTEAGE
DON TINDALE

DINNER/ DELEGATION MEETINGS 1730

KEYNOTE ADDRESS - actually a panel
- VUSI KHANYILE
- PANCHO GUEDES
- IVOR PRINSLOO

1930

EDUCATING ARCHITECTS IN THE SOUTH AFRICAN CONTEXT

WALKING NIGHT TOUR OF JOHANNESBURG ENDING AT HILLBROW

2100

Jean-Pierre Delaporte

Aldo Rossi's **A Scientific Autobiography** is characterised by its seeming anomalies. Besides the **Architecture of the City**, it is the only comprehensive document of his thought to date. It does not have the texture of a work of theory, neither proposing a reform through 'novel' principles nor seeking the consolidation of existing ones. It is not a manifesto, even latently, being unmarked by oratory or forensics. It does not propose a study, least of all a retrospective one, adrawing up of accounts on Rossi's work itself. If it is an autobiography, it is this only genetically; the paradoxial attempt of one whose production is far from finished, to speak of a life only through the figure of death, works only through the failings of wishes and of a language only through the ineluctable necessities which launch every language, beyond itself, into error.

Because of its form, his document is in obvious danger of being read as a *summa* of the architect's taste, as idiosyncratic or aphoristic, eventually possessing no other function than charting the intersections of Rossi's experiences, his grievances, or passions. But this illusion is quickly dispelled by the preoccupations of a text that scatter its ostensible form.

Living

Death dominates the organisation of the work, and not simply as its unsurpassable margin "*Every summer seemed to me my last summer, and this sense of stasis without evolution may explain many of my projects. Nonetheless, to understand or explain my architecture, I must again run through things and impressions, must again describe them, or find a way to do so.*" (**A Scientific Autobiography:1**) This passage, the second paragraph of the book, fuses death and repetition into a privileged means by which to conduct a search for 'understanding' and 'explanation' in architecture. The work's eventual title indicates less the wish for a genre in which to speak comfortably of oneself than a hommage to a fragment of memory, not Rossi's but Max Planck's. The physicist recalls his teacher's anecdote concerning a mason's wonder in recognising that the stone which he had raised onto a roof with such effort, retained its energy undimished until it lethally expended it one day, slipping off onto the head of, and killing, a passerby. Laborious expenditure and the unpredictable event here frame the marvellous and provisional arrangements of architecture. Through this, Planck's **My Scientific Autobiography** intersects with Rossi's substituting only the neutral 'A' for the possessive pronoun. A discourse on the conservation of energy and its endurance over time marks out a way to connect, as architecture, astonishment and catastrophe.

All conservation is fragile, a temporary happiness; it's undoing can only lead to death. Rossi repeats and endlessly demonstrates this proposition throughout his text. The work of dissolution upon form, a work which prepares death and continues beyond the event, is exemplified for Rossi in two ways, as fracture and as contortion. He recounts an automobile accident between Belgrade and Zagrev which immobilised him with multiple fractures. This was the circumstance in which the project for the cemetery as Modena emerged - not, as could be expected, as the precipitate of some*memmento mori* - but rather through an awareness otherwise unattainalble of the skeletal structure of the human body through its provisional rendering as fragments. It is this relation between immobility (the hours spent staring out of a small hospital window) and the reality of radical anitomical displacement (bones, fractured in the living body, prefiguring their ultimate dispersed survival long after the decomposition of the flesh) which framed the terms of the project. If an accident may cause the living to prefigure two essential conditions of the dead, immobility and anatomical destruction, then this has as its generic concomitant -illness - or death visible in the body, paintings of deposition. Rossi cites these as "*studies in the mechanical possibilities of the body*" but studies the privilege of which is constituted by the fact that the body, the document, is dead, able to exhibit its structure in a

stark and convulsed way only because it not longer supports itself. The deposed corpse assumes attitudes impossible for the living to mimic. It presents a unique morphology of gesture, one no longer expressing intention but wholly dominated by gravity. It is the 'cold ambience' of this tableau, the light and colour which analyses a gaze upon death in which Rossi seeks to view objects. This is the neutral and pervasive light which, via the descriptions and dissection of morbid anatomy, seeks to penetrate the very interior of the corpse, death itself, and from there purvey to the gaze of the inquirer a rigorous knowledge of causes. For Rossi, death is always the correlate of diagnosis and description, in documenting space, we also inventory the conditons under which death may be known.

It would be a mistake to see Rossi's invocation of the body as a survival or harbinger of architectural humanism, as a realistic adaptation of space to mobility and circulation, or of informing proportion with an 'organic' canon. His relation between the body and architecture is not metaphoric but epistemic. Our relation to the body as well as our ultimate knowledge of it is always an event unfolding in a determinate and rigorously organisable space. Thus it is the anatomy theatre, a spatial configuration in which naming, seeing, and dismembering may be super-imposed, that makes up the condition in which, surrounding the event of death, an exact knowledge of the body becomes possible, all the secrets of its workings finally conquered by a public and anonymous gaze, the autopsy.

If the stage on which the privileged event, death, becomes legible, is spatial, then Rossi is justified in seeing the links between architecture and habitation as not primarily analysable through design, through reference to means and ends. His work constantly abstracts from use, not to replace it with some sculptural monumentality, with a sublime or useless object, but to locate more clearly the architectural as a condition under which events become legible, as their setting.When death unpredictably supervenes, the body ceases to be a possible inhabitant, becoming part of what had previously been its setting. From being a personal continuity in time, the body becomes an object susceptible to an exhaustive spatial delimitation. The event of death is temporal, but our knowledge of it is spatial, scientific anatomy being a technique for analysing what is spatially arranged. Therefore Rossi's location of the architectural fact, in the midst of relations between death and body, is not an analogy. The body does not resemble architecture through morphological or mechanical attributes. Rather, our science of death and our architectural inquiry converge, both existing as a discipline of controlled and documented spatialisation, as notations of arrangements of masses, textures, surfaces, and voids, suspended between the happiness of energy conserved and the inevitability, the unpredictable fate of an accidental erosion.

Labouring

The autobiographical reserves a place in which to speak of failures with a good conscience. The achievements of a life must be seen to outweigh the tribulations suffered by its ambitions. Rossi by contrast does not wish to summom up successful projects in his favour. He sees the ritual of speaking in the first person as a means to forgetting rather than recalling, forgetting above all the web of projects - wishes, goals and intentions - of which realised works are usually perceived as the result. Forgetting is an entirely productive event. If Rossi is able to replace death as asubjective and individual notion with death as the anonymnous, spatial precondition of objective knowledge, he is also able to seperate forgeting from its status as an error of memory and to place it alongside death as a privileged mode of access to the architectural object.

He wishes above all to forget wishing itself, that is, the projects which always serve as the implicit yardstick of the works. Only forgetting effaces the distance which separates the utopias of conception from the minute and exasperating pitfalls of execution.Just as death reveals the body as a potentially endless surface no longer stirred in its depths by intention or burdened with the task of expressing a soul, so forgetting, no longer being able to understand the wish operative in a project, finally renders the architectural work devoid of all underlying programmes, divorcing it

from the animating subjectivity of the architect. Forgetting effaces the distinction between the ideal and the actual. Each work is no longer the occasion for regret, something which begs to be repeated, recalled from the past in order that everything it lacks may finally be addressed. The ideals of the project no longer, through their very ideality, force the architect's desire to wish backwards, to try to negate the past by repeating and undoing it. Only in actively forgetting the project, and the wishes it avows, can the architectural object become more than a vexing reminder of what could have been, of the possible and assume its final separation from thought, freed from the projects, those monumental constructions in which the narcissism of architectural thought ventures forth sheltered from the event.

This is why Rossi considers those wishes which have not found appropriate conditions of realisation (which for him could be indifferently drawings, notes and buildings),as his only real failures, for they cannot be forgotten. This persistence of wish chaining architectural motivation to the implicit form of architectural memory is always, for him, the consequence of not finding an adequate mode of formulation, and thus being able to have done with something. Rossi's project for an interior persists to his dismay through a series of works simply because the architectural lexicon, the image repertory, cannot state this notion, realise or enunciate it with sufficient rigour to still its insistence.

This leads to a second principle of the productivity of forgetting. A wish is realised in order that it may be forgotten, in order that it may cease to exist as a repetitious and insistent dissatisfaction. Far from being he expression of an obsession, the architectural work exist in order to free desire from obsessions. Only the rigorous delineation of a wish, (which is not all the same as its fulfillment), can allow it to subside; anything short of this is fixation. The endless restlessness which disturbs architectural vocabulary, the crisis of its enunciative modes, is for Rossi at best an endeavour to formulate what one lacks with sufficient exactitiude to have done with it. He thus equates the architectural vocation with a search for repose.

Conversely, only those notions which any given architecture can scarcely formulate, can sustain a project, (the paradox of the sheer drop endless corridors or minimal facades), can accumulate around themselves the sum total of dissatisfactions, desires which exceed every available representation. Should these invading presences ever find their place in the discourse of architecture, they would cease at the same instant to function as norms for the architectural endeavour, as projects. Hence Rossi correctly approaches his projects objectively not in terms of the numbers built and the numbers rejected but through the conditions under which he was able to forget them, to eradicate their persistence as themes or topics, to free them from the thrall in which the ideal (correlate of every wish) holds them captive. Only a confession of the circumstances of forgetfullness, that is to say, of moments of happiness, can present the architectural object objecively, outside the symptomatic distortions of a wish, even the wish to undo or the wish not to wish. In this way Rossi's forgettings are as involunatary as Marcel's remembrances.

Speaking

A Scientific Autobiography does not describe events (spontaneously cast as epic), through which a naive sense of vocation comes gradually to acquire the elements of a 'personal' vocabulary. It haslittle to do with the ways in which longing and ambition become style. Rossi states his indifference to architecture as calling: perhaps it was the myths surrounding equally fabulous structures such as the Great Wall of China which drew him to the profession. He suggests that the same ensemble of activities could perhaps be exercised to other ends altogether. He refuses to allow the specificity of architecture. Its products are easily elided with domestic utensils on the one hand, with the purely material vicissitudes on the other. Nor can the architect be erected into a principle of specific difference. For Rossi, his place in the division of labour defines nothing uniquely. Nonetheless, the architectural persists and not by the intervention of the architectural discipline either. It is neither a language nor a specific convention in the deployment of other languages. Instead, for Rossi, it is what emerges at the heart of

multiplicity of languages, of styles and procedures, always in excess of them. This is not to say that it is their underlying secret or fundamental code. Rather, if architecture so persistantly inhabits the margins of many things, it is because each one of them in being exactly stated is thereby liable to error. Rossi comes close to defining architecture as the condition in which something is proposed with rigour and exactitude, the project as a conception becoming exact and finite, but in the same nature, being subjected to errors, to the unforseen, and to the contingent. This is why Filarete's column serves as a pardigm. Not because of any poetic qualities of the fragment, but because the ideal and precise conception of a princely dwelling found itself unforeseeably abortedand in its place a series of modest houses, parenthesis to the column, effects of entirely unrelated conceptions, arose. This remnant, part of a project immobilised by a myriad of contingent events, is for Rossi a privileged exemplar of the architectural fact. In its purest form architecture is the precipitate of accidents, it is the realisation of exactitude which nonetheless can never contain the events which will erode it - the throw of the die that can never abolish chance or mouldings melted down into cannons and then into statues ...

It is because of the constitutive role he accords to the contingent that Rossi can see the city as an architectural fact rather than pre-eminently a sociological or economic one. This is neither taken to be due to an implicit design (an architectural rationality or planning) nor to the formal properties which the urban configuration may possess, but to the fact that the city as an ensemble presents in a legible form the contingencies which its elements undergo. In Rossi's various drawings on the theme of the analogical city, the analogies are never the result of an implicit harmony or of a deliberate vocabulary but always the products of unpredictability, of juxtapositions which defy even the planes of perspectival reading. The analogous is never more than proof of the unforseeable events which juxtapose one strucutre with another, the events whichmake up the history of the urban. Their gratuitous nature, often underwritten by the humourous or ironic statement in his drawings betray the hope of subjecting the city to a compostional rationality, since to do so would destroy it as an archiectural fact, which is not more than exactititude facing chance such that the relinquishment of either pole would mean the disappearance of the architectural.

The Spectacle and the Miniature

The Small Scienfitic Theatre is no less than the latent syntax performed upon objects, a way of selecting them prior to their inclusion or models if they are to appear at all, and thus guaranteeing that our acquaintance with the resulting spectacle cannot avoid being marked by the epistemic growth of aesthetic pleasure. The theatre, by thus miniaturising the spectacle, establishes the preconditions under which the wish to know, scopophilia, is linked to objects and to pleasure in a single gesture. The cabin, sealed upon itself as a tomb or in the confidences of the confessional, may also allow a side to be opened, revealing to the pleasure of the informed gaze, an exact model of the world, that for which all knowledge cross in opposite directions and cancel one another out.

The cabin establishes the common architectural condition between the privacy of the tomb and the public fact of the spectacle. It permits the intersection of epistemic and aesthetic experience. It forms for Rossi a species of least common denominator in an architectural typology. Unlike the villa which for him must incorporate into its design, however minimally, the elements of its setting - squares, gardens or public passages - the cabin is marked by its indifference to setting. As a bathing machine, it ensures privacy by obliterating the public surroundings of the seaside. As a confessional, it disengages every link of identity by separating the speaker from the hearer, as a tomb it guarantees the sacred inviolability of the remains of the dead, by sealing them off from the events of life that surround them, and ultimately, as a theatre, the cabin, despite its half-open condition, serves to demarcate the stage, the object of the gaze, from both the audience and the wings. It safeguards the spectacle architecturally through a separation in space that guarantees the visibility only of those things which submit to the codes of performance. The

cabin therefore takes on a universality and thus a prevalence in Rossi's thought. It is the only minimal unit of typology that may function indifferently across exteriors from interiors. Located unambiguously in the interior of cathedrals, or isolated and conspicuous, as a bathing machine defining an exterior on the sands, as much as a sealed box as it is a displaycabinet, this object has the power to produce further architectural objects - such as a cabin on a stage - while it may be effaced as an architectural object through the accidental event of a capsizing, its floor now becoming a gaping hole in its side. It is no longer able to delineate spaces or conduct the gaze as in the picture *Cabanas on Elba.*

A Scientific Autobiography speaks in order to reveal the law which forces all language to miscarry, recounts labours but only in order to show the imperious desire for the ideal to which they remain captive. It speaks of a life of such labours in order to show that its very intelligibility depends upon the spatial grimace of death which from Massacio's spectacle in an apse, mapped out in virtual space by Brunelleschi, to the endless extended series of the *Gallaratese,* has remained constant.

100 Missed Opportunities

Congress coincided with Johannesburg's Century, and the talk **100 Missed Opportunities** was named to indicate a symbolic protest against the form and content of the celebrations that had been planned for the year. No-one can deny that Johannesburg was 100 years old, that is a fact, but it is questionable what cause there is to celebrate.

Johannesburg's history is one that closely parallels and reflects the results of the Apartheid system. The majority of its residents have suffered under the laws vetted to maintain white domination. The Group Areas Act, slum clearances and removals, the migrant labour system and systematic destruction of black initiative to participate in the so-called Free Enterprise System, which was selective at the best of times and totally dominated by the Randlords and their monopolies.

There is an architectonic parallel, best demonstrated by the number of implosions, destroying whatever cultural continuity there might be, and the replacement of those real buildings with ones that attempt to reflect a healthy,vibrant and dynamic economy and society.

Parktown is a case in point. Although a suburb reflecting the huge discrepencies of wealth in this country and the status of the Randlords gained through the blood and sweat of the oppressed african working class, also serves to demonstrate a principle. The process of its transformation demonstrates the lack of foresight and concern, not only for the character of the area, but for the impact it has had in the broader region.

The handling of the built environment and lack of concern for people strongly parallels the history of Johannesburg. The millions of rands spent on the centenary could certainly have been used in more appropriate areas, improving the immediate material and physical conditions of Johannesburg's one time citizens, who have been systemmaticaly removed from the Jewel of South Africa.

Questions of a worker reading history

Who built seven-gated Thebes?
Books list the names of kings.

Did kings haul the blocks and bricks?
And Babylon, destroyed so many times
Who built her up so many times? Where
Are the house where the construction-workers
Of golden-gleaming Lima lived?
Where did the masons go at nightfall
When they finished mortaring the Wall of China?
High Rome is full of victory arches.
Who put them up? Whom did Caesars
triumph over?

Did chronicled Byzantium build only palaces
for its inhabitants? In fabulous Atlantis
the drowned bellowed in the night when the sea
swallowed them up after their slaves.

Young Alexander conquered India
Just he?
Caesar beat the Gauls.
Didn't he at least have a cook with him?
Philip of Spain wept when his Armada
Went down. Did no one else?
Frederick the Great won out in the Seven Years War.

Who won besides?
A victory on every page.
Who cooked the great victory feast?
A great man every decade.
Who paid the bills?

Lots of facts.
Lots of questions.

Bertold Brecht

Dave Clements

Parktown provides us with a good case study to demonstrate the opportunities missed and wasted in its evolution from a 'high class residential suburb' with a strong historic background, to the incoherent, disparate area that we know today.

Pressures for change in Parktown, were largely initiated and dictated to a large extent, by the changes in land use zoning throughout it, have thus been central in the evolution of its urban form.

Zoning is not quite as simplistic as it seems, yet its two dimensional nature, does not go far enough towards anticipating the problems of development. By re-zoning land use, without providing a structural plan or conducting an environmental impact study as to its effect on existing urban character, denies the complexity of the design issues and fails to recognise the oppurtunity of creating change in a positive way.

The initial cause of Parktown's problem began in 1950, when the Transvaal Provincial Administration (TPA) and the Transvaal Education Department (TED) bought up large tracts of land. Recognising the oppurtunity, a few developers applied to develop a section of land along Girton Road. The council opposed the application and for 10 years it lay dormant.

Out of the blue, the Administrator approved the application, and instructed the council to prepare a development plan for Parktown, which included the Girton Road proposal. The town planning study was carried out by independent professionals, and a scheme produced for a limited area.

Due to the accessible location of Parktown, and its low density of use, developers applied for rezoning of its properties along Girton Road, which was again opposed by the Council. This time because they didn't support decentralisation of the office components of the city.

The administrator did however approve this proposal, and again instructed the council to prepare a development plan, this time again, including the new proposal. The scheme proposed an office park geared to large office buildings and envisaged the consolidation of the area. All trees were recorded, and a new road layout designed.

This scheme also produced three dimensional building envelopes which recorded the maximum height and coverage allowable for potential buildings.

This whole proposal was abandoned, having made the fatal mistake of presuming the land was owned by one common owner. The market place demanded small scale development, whilst the council recognised that it would be cheaper and easier to retain the original road system.

The Parktown development plan was subsequently adopted, which included the councils proposals for institutional use, and a strategy for the inclusion of the Parktown triangle as a residential area.

Later developmental pressures, persuaded the council to develop the office park zone westwards, and the whole area was blanket rezoned for offices with very low coverage factors. Today most of the council land is being sold off for office devlopment, which has resulted in the subsequent replacement of the original development plan.

It is very obvious that no development plan or generative framework for evolving a meaningful city form is given to anybody, rather the environment is shaped and directed by means of town planning controls (floorspace ratios etc.), imposed as a blanket fashion on large areas, regardless of physical elements, which make any area unique in itself. It does not allow for development to respond to any physical features, which would fascilitate the creation of an urban accent. It leads to stereotyped environments, buildings of regular height and bulk, all set back on building lines. Thus it is difficult to ascertain whether one is in Rosebank or in Parktown. These restrictions have killed the existing character of Parktown.

In order to overcome the shortcomings of this approach to planning,

and also to provide an alternative, the urban design profession has evolved. Principaly this function occupies a territory between architecture and town planning, concerned with the organisation of space between buildings, location of services, linkages and the evaluation of form in response to urban design frameworks. Design prinicples and policies intended to guide growth and development, without stifling the project design initiative, whilst providing a framework for the thousands of designers at work. Urban design is both an art and a science, and for this reason, architecture, engineering, landscape architecture, traffic engineering, sociology and economics are all disciplines which must be co-ordinated in the evolution of urban design.

Each problem is unique, in that the web of elements create oppurtunities and impose constraints of a particular nature. It is important that these factors be evaluated objectively as opposed to intuitively, as it is this process that is an important and intricate element of urban design.

The major thrust of the rezoning and redevelopment of Parktown, was aimed at establishing a 'decentralised office park'. According to a report; "*The council has endeavoured to create an office park, based on the retention of existing trees*" (their premise!). There is a tendancy among design professionals to describe all landscaped, low rise structures, accomodating offices as office parks. This attitude results in many individual stands being developed. Each building developed in isolation, taking no cogniscence of the adjoining development. This inevitably results in a sterile environment of block after block of offices. It also denies the design issues of creating places of environmental quality, the role of the car is accentuated, and the built form created to achieve coherence and continuity

Inherent in this, is the common belief that development sitting well back, with low percentage coverage and highly landscaped gardens constitutes the character of Parktown. Developers believe they have perpetuated this character by producing buildings which emit heavy symbolic messages sitting in sumptuous gardens.

The passive realm is insignificant, with no effort towards the accomodation of the user in the environment. I believe the character of Parktown has disappeared. Previously Parktown was made up of prestigious buildings, on well wooded properties, whilst still giving a lot at community level. The street character and ambiance were created by the absence of building lines, landscaping, trees, gateways and semi-public fore-courts, reinforced by a very articulated architecture, which although not small in scale was made up of small scale elements. The buildings were hierarchically structured, incorporating public, semi-public and private domains, generating a semi-transparent aesthetic, in which the gardens flowed naturally into the buildings.

I believe that this concept is more valid for office park design, although I'm not advocating the emulation of this style, but the retention of its character. Certainly no cogniscence was taken of these elements that make up Parktown's character, when the land use was rezoned. Today a significantly new character has emerged from the almost universally applied office park image. Sadly the developments which used the existing elements are now mostly out of character.

A major philosophical dilemma in the case of office park development is the endeavour to create a high quality environment. Parking is a huge problem in Parktown. Not only does it jam, and visually ruin the public realm, but it negates the commonly held concept of an office park. The so-called landscaped gardens being reduced to parking areas with a few plants, or alternatively in some cases, creating dead 'parking' floors which are more devestating at ground level to the office park environment.

At the time of the original development plan, the council had been working on the wrong premise. They believed the office workers would be arriving at the office park by means of a really good bus service, therefore only requiring 2 parking bays per 100 square meters of office space, even though no environmental impact study was done to investigate the effects of this decison.

Today, the Council admits that they should have required 4 bays per 100 square meters. I believe, that rather than putting the burden of this parking shortfall on the developers, and thus reducing the economic

viability of any development, that parking should be accomodated in municipal areas.

With the basic townplanning concern centered around the creation of this office zone, there were numerous other issues not taken account of. If this talk is about 100 missed opurtunities, then the hospital and Johannesburg College of Education must account for 50 of them. These two developments are completely out of scale in their height, length, width, volume, etc, with the surroundihg urban fabric, as well as the ridge system of Johannesburg.

The best land area occupied by the JCE is dislocated and incompatible with the existing urban matrix. This results in severe difficulty in finding ones way around. The comlex could have been more meaningful, had it been structured to fit into the existing fabric of the community, which it was meant to serve, rather than the isolated linear development it is, starting nowhere and going nowhere, and not relating to any of the existing movement systems.

An enormous amount has been said about the hospital and its devastating environmental impact on the external image of Johannesburg, but nothing has been done to lessen its blow. By encouraging carefully positioned nodal development, along the front of the hospital, its huge horizontal form on the Johannesburg skyline, and its bulk might be broken down.

Although Parktown is in easy motoring distance of both Braamfontein and Hillbrow, it is most inconvenient to reach them. The introduction of a shopping component would be very problematic, due to the way Parktown has been developed. It is very isolated.

Having identified the sight characteristics and problems, I'd like to formulate oppurtunities based on various structuring devices.

Parktown is bisected by the M1 Freeway, clearly vehicular access to the area is good. It should provide a strong gateway into the city. The construction of the ridge, and the sudden change of land use and texture gives one a sense of arrival. The implications of these gateway components, would dictate certain 3 dimensional responses, which would result in a very different urban form from that which exists at present.

All roads in Parktown have been treated singularly as vehicle carriers. The changing of land use in Parktown has created a totally car orientated environment, which generates a large pedestrian movement. The act of movement gives rise to other functions.

1. As communicator; deals with the city as a message system, involving symbolic locations. Planning should recognise the opportunity for exploiting these existing symbols, because the city user gives meaning to what they perceive.

2. Space shelter; the street should become a continuum of functional shelter in a unified system. The street is conceived as potential space for conscious design. "*The street wants to be a building.*" Louis Kahn.

3. Using movement as the generator for development , the building function is set through its location. There are two aspects;

Accessibility and Capital Design.

Capital Design involves the notion of location and design of building facilities related to a movement system as creator of growth, a generator of the private sector.

Accessibility deals with the major influences that movement has on the orientation of certain opportunities and land values. Good accessibility stimulates development. Movement can also be used to protect areas, by reducing market demand.

Pedestrian movement is the key determenant of land values and use. Parktown has a strong daytime student pedestrian movement, which has been neglected in its development. It is an important linking device between isolated zones which make up Parktown, which should become a key factor in locating commercial facilities, whilst recognising the limitation of the time/distance factor (8/10 minutes).

Public open space in Parktown is at a minimun, and those that do exist are underutilized. The opportunity exists to regenerate the spaces, by incorporating them into an identifiable system, which links them to

facilities.

The ridge system of Johannesburg has been eroded as a natural commodity, with its impact as an urban design element rapidly reduced by large buildings , out of scale with their environment. The one good thing is that the City Council, by creating walks through Parktown and Westcliff to display the historic buildings, have begun to use the street as an open space, which will certainly give the City more meaning to the user.

In summation I would say that if any change is to take place, either in a sensitive area, like Parktown, or for that matter in any area, it should involve an enormous amount of ground work and a huge design input before anything is implemented.

Conservationism and Urbanism

Marybeth MacTeague

Urban conservatism is a movement bound by two forces. The first may be described primarily as nostalgic and associated with preservationists, usually non-architects who are angered by the change in their city since World War 2, and long for the return to the past status of city life. The second group is composed of architects and urban designers who are motivated by a recent theory of practise rather than nostalgia. These are the so-called rationalists who as Vidler describes in 'Rational Architecture', used the whole city fabric as a model and parameter for design solutions. This, Vidler described as the third typlogy which follows the first and second typologies of nature and the machine, as the basis for design.

Both the rationalsits and the preservationists reject the machine typology approach to the city, which divides it into segregated zones according to function, and it attempts to replace the old city with something new and better. Instead, each movement atempts to work within and enhance the particular existing structures and character of each city.

While preservationists seek to conserve the existing fabric for its own sake, the rationalists see it as a model and necessary precedent for future design solutions.

The city has been described by Edmund Bacon as man's (sic) greatest achievement. Besides providing for such mundane needs as food, security and greater opportunity for trade, cities have become repositories for civilisation, for those institutions which house and represent our aspirations; government and commerce, religion and education, culture and justice.

By housing the functions of a civilised society, the city became a great meeting place for all peoples. The diversity of activities and peoples provided a stimulating range of choice and experience.

Technology and especially transport has been the greatest threat to the survival of the city. Increased mobility led to commuting, bringing with it plans for decentralsing the segregated city; segregated by function and integrated with the countryside.

One of the consequences of these visions has been the widespread development of suburbs. Suburbs are the very antithesis of the city. By their very structure and development they engender the separation of classes and in South Africa, races. It is an emphasis on the individual, rather than on the colletive pursuit. Culturally deprived, suburbs are also apolitical leisurelands, excluding the many functions of society. The opportunity of political expression and exchange is greatly diminished by the disappearance of the public place.

As part of the destruction of the city, it is significant that later city institutions such as the Civic Centre and Civic Theatre were relocated out of the CBD, beyond pedestrian access in a wide space of green parkland, with no sense of meeting place at all.

The revitalisation of downtown city cores is often the result of the rejection of a suburban lifestyle, very often sparked by a so-called counter culture which looks for an alternative lifestyle.

Rockey Street is for me a relevant local example. Young entrepeneurs have taken shops in an established neighbourhood which has the advantage over served suburban malls of cheaper rents, and being a part of an authentic and diverse street life, which is in turn connected to a residential community of diverse groups.

A similar event occured in Toronto's Europeville in the late 1960's when so-called hippies rented the cheaper and neglected late 19th Century housing stock, on the fringes of the commercial downtown. Europeville developed into a lively community of residents and craftsmen, musicians, coffee bars and experimental theatres. Partially sparked by the fuel crisis of the early 1970's, and of increased land values and development, young trendy professionals and smart investors began to buy and renovate the Europeville houses. Many of them were formally converted into shops, some were demolished and

replaced to accomodate increased floor area.

Although the neighbourhood has become slightly snootier and upmarket it is nonetheless one of the livelier quarters in the city.

There was little intervention by architects. Development was carried out primarily by city planners who controlled the developmentto a restricted 2,5 story height.

The first large scale single developer project which set the pace for the renovation of urban places was Quincy Market in Boston.

When it was origially built in the 1820's, it was a prototypical market which became the city's major food and produce centre flanked by offices and warehouses. In its architectural form it represented the merchants as an institution within the city. By 1959, after 125 years as Boston's Market centre, it was declared obsolete and a wholesale market centre was relocated outside of the city on a highway.

In 1966 there was a proposal to develop it, but construction did not begin until 1975. This was because both developers and financial institutions considered the project a too risky venture, especially as there had been no precedent for it. Since the opening however, the profits have been so substantial that it has served as a model for profit making development across North America. The location of the market has proven critical to the city. It is in the heart of Boston core on a pedestrian route which leads from the State House to the CBD to the City Hall and beyond to the water front and aquarium.

Twenty thousand people live within walking distance of the market and more come to work in the vicinity. The conversion reinstated the function of the market to include shops, restaurants, offices and residential accomodation so that the quarter is populated 24 hours a day.

San Francisco's Geridelli Square and Cannary were subsequent examples of converting abandoned warehouses for commerical use and creating outdoor places and pathways for sitting, eating and walking. Often, however, revitalised buildings are developed as gimmicky attractions which tend to pander the the baser needs of tourists, rather than to being integral civic activities. This isespecially apparent in the developments of Pier 39 which is really a non-stop tourist attraction.

This type of development has its place, but I don't feel it is the ideal way of revitilising a city.

In cities like London and New York, which enjoy a constant regeneration, self-conscious renovation projects often appear to be disconected from their real urban favric. They seem to be more like artificial insertions of new building, rather than the conversion and continuation of the old. While becoming strong centres of activity they do not integrate well with the character of the immediate neighbourhood.

Covent Garden in London has this sense of disconnection from the city although it was important that those remarkable structures be preserved.

New York City however, is a gutsy, grimy place that enjoys continuous, spontaneous renewal within the existing building fabric. Often the schemes are conspicuous and self-conscious smacking of an artificality that is foreign to the city's character, which I believe is due to the district being redeveloped by a single profit making developer in one blow, rather than by many individuals over a period of time.

In Toronto several different schemes since the late 1960's have made attempts to reclaim the waterfront. To the West of the the city centre, Onterio Place was developed, a sort of neo-constructivist construction with a geodisic dome that extended pedestrian bridges from the land to a series of man-made (sic) islands and waterways. Boats, marines, parkland, a kid's playground, special film theatres and an outdoor amphitheatre for concerts, bars and restaurants have made this a lively summertime centre.

In the late 70's it was decided to redevelop the central shore line which has been dominated by shipping warehouses and grain elevators. In 92 acres of parkland, new buildings have been constructed and old one renovated and converted to new funcions. One of the largest conversion projects was the redevelopment of an existing mill providing offices and a shopping arcade, together with a 450 seat theatre, and 72 condiminiums which were added on top.

One of the interesting things about this project was the way in which the original frame structure of the mill was kept, and then within that, nonetheless floors and walls were removed. It resulted in interesting volumes of space passing through the building, achieving at the same time an awareness of the previous structure and function, and through transformation, cutural continuity.

In the early 1970's developers proposed demolishing a block of houses in downtown Toronto and replacing it with three apartment block towers. Diamond and Meyers the appointed architectural firm, argued that it was important to the physical structure of the whole neighbourhood that the housing be maintained. In order to achieve an increased population density they built four storey apartments in the lanes behind the existing houses. These have a variety of unit sizes from bachelor flats to three bedroom apartments to encourage a population mix of families, young single people and the elderly.

The principles behind the scheme are quite important and significant, demonstrated when in the mid-1970's they again resisted demolition of houses for high rise towers, and accommodated a greater population density within low-rise blocks. Diamond and Meyers exhibit a reat attempt to blend with the neighbourhood through their recognitions and response to the immediate context and way of life.

As with all aspects of life in South Africa, it is not possible to separate conservation from apartheid politics. This is evident in the National Monuments Act, where the terms of definition refer exclusively to Voortrekker graves and garderns of rememberance.

Nowhere are the words of architecture or building used. On a national scale, the best preserved buildings are those of the Cape Dutch, and for an example the 1663 refreshment station in the Golden Acre Shopping Centre. However, I personally cannot help wondering if the preservation of these artifacts is in the interests of culture and history alone, or if they are not merely tools, tangible supports, for the arguement that the Cape was first settled by Europeans.

In Johannesburg, the most powerful and publicly visible conservation body is the Parktown Westcliff Heritage Committee which primarily directs its energies to the preservation of the Randlords mansions on the ridges. Perhaps the transformation of Parktownfrom the Arcadian Oasis of the few to the workplace of the many is correct, but it is the way in which this transformation hasbeen affected that is objectionable.

Since I first became actively involved in preservation in Johannesburg at the end of 1983, I have felt deeply what Leon van Schaik said the other day: "Is it worth doing anything at all in his context?" While collecting petitions for Escom house it was glaringly obvious that there were much more vital issues to be petitioned for and I wondered ruefully if the Magistrate's Court would have granted us permision for such petitions.

The same realisation hit the students who picketed against the destruction of the Collosium on the very day that the detained trade union leader Andries Raditsela was buried. For direction I'm reminded of Frampton's definition of regionlism as an architecture of resistance. I would advocate that we resist the destruction of cities as the true meeting place of all society and the only physical form for democratic political expression. In specific terms, as designers, we must address the particular context of each sitauation, analyse its structure and character and rather than impose preconceived formuli, respond to and enhance its particular qualities.

In answer to the question - "Is it worth doing anything at all in this context?", I turn to the maxim of the exestentialists who said that **to act is the only way to give our existence meaning.**

Educating Architects in the South African Context

BRENDAN BARRY

This paper broadly covers the education crisis and locates the universities and white education within the South African context.

In order to understand where we come from and what our education is about, we have to understand exactly what the other side of the coin is - Bantu Education. To do this, it would be appropriate to allow the 'architects' of Bantu Education to show the plans themselves. In turn, this will tell us a tremendous amount about our own education.

Prior to the current government's period in power, during the missionary era we all learnt about in school, Dr Phillip, an 'architect' of missionary education said; "*Through this missionary education the black people will be more productive, there will be an increase in consumption of British manufactures, taxes will be paid and farmers will have no cause to complain of a lack of labour.*" Perhaps this was quite sophisticated, his wife, however, was not quite as subtle as this. In 1820 she said; "*the schools for the children must eventually be an advantage to us, by teaching them to speak, read and write English, they will be taught industrious habits, be useful as servants. It is altogether an interesting sight,*" said she, "*so many little black creatures brought into civilisation.*"

Sir George Grey, a British Governor of the Cape, later said that education should be; "*Aimed at producing a docile labour force, that adopts European political and religious authority and so its superiority.*"

In the 1900's the 'Native Affairs commission' into Bantu Education argued that "*the defects of uneducated man, referring to the shortfalls in black education of the time, are balanced by the ease with which owing to his simplicity and ignorance he can be exploited as an economic asset.*"

And in 1936, before the National Party came into power, the Welsch Commission argued; "*We must give the native an education which will keep him in his place.*"

The architect of the present Bantu Education system, Hendrik Verwoerd, Minister of Native Affairs, then Minister of Education and later Prime Minister of South Africa, had the following to say; "*Natives must be taught from early childhood that equality with Europeans is not for them; what is the use of teaching the Bantu child mathematics which it will not use in practice; there is no place for him, above certain forms of labour, in the white community.*"

Just to make sure no-one misunderstood him, he said to parliament; "*I just want to remind the honourable members present, that if the native in South Africa in his schooling existence is being taught to expect that he will live his adult life under a policy of equal rights he is making a big mistake.*"

The above has hopefully been a summary of the motor force, thinking and desires behind South African education, Bantu Education in particular. It is important, however, that when examining the basis of black education, the inferiority of it, and the way in which it is structured, that we recognise that we can also learn more about our own education ie white, Christian National Education.

By looking at what these architects have said about South African education, we can learn a lesson about what education is all about in any society. First and foremost its got to do with the formation and perpetuation of ideology.By this it is meant that if one could channel and ensure that only certain ideas, certain aspects of knowledge and certain aspects of the history of a nation were made available through education, you could in fact dictate the way so-called educated people thought, and if you did that very efficiently you could in fact mould the entire outlook of a generation of people moving through that process.

Further, ideology and an understanding of the world and history and one's own history will ultimately determine what action one will take. If you have an undertanding of your own history that you feel happy with, you will preserve it; if you have an understanding of the rationale behind the status quo, you will preserve it. If this isn't the case and you were taught

differently, you will attempt to change the world around you.

Broadly, if you look at the South African education system the value system it reproduces, and the people who control it, we will begin to see that any education system will reproduce the values and ideals of the ruling sections in that society.

Another component of education is the question of skills. Practical and theoretical skills and qualifications passed on through an education system provide people with the oppurtunity to slot into specific areas of society depending on what they have learnt. The question we need to ask ourselves in the light of this and the rationale behind Bantu Education, is what the basis is upon which students like ourselves are able to go to university and move into skilled sections of society that are usually very lucrative and why do the majority of South Africans move through an education system and find themselves allocated to the production line in a factory. South Africa is possibly one of the clearest examples of the way in which education is manipulated to reproduce the status quo. Surely there is some rationale behind that.

To understand the current education crisis we need to look at what this 'manipulation' of education means in practise.

Essentially for black South Africans it means that they have been provided with an inherently inferior system of education, the extent of which is shown quite clearly by running through some statistics. Effectively, in more recent years, approximately R1 600 has been spent every year on each white child's education, with less than R200 being spent on every black child. This means ultimately that in black education, there are effectively no facilities which are needed to improve skills and one's ability to conceptualise and implement what one has learnt. Our experience of soccer fields, of laboratories and libraries is not that at black schools. The reality being, that a black child will complete matric without practically conducting any of the experiments that we did at our schools.

The pupil/teacher ratio is another example of glaring discrepancies; in white schools the ratio is one teacher to 18 school children and in black schools the ratio is one teacher to 40 school children.

It goes on, culminating in a pass rate that ensures that many will end up on the production line; but more specifically that a certain sector of society will end up attending a conference such as this one. The pass rate means that within the african population only 40% of those who write matric pass it and only 9% get marks which will allow them to enter the universities. Amongst the white population, 80% of those who write matric, pass, and 40% gain access to the universities.

Talking about statistics is not where it ends. To have an understanding of education, we have to locate it quite clearly within the broader political and social system which South Africa experiences. Whilst doing so we need to keep in mind our own conception of what white education is all about.

Black students don't only become incredibly frustrated with their inferior system of education, they have to come to terms with a lot more. For example, not many of us have had to do homework in the evening without lights, but that is the case for most black students. Add to this bad housing conditions, insufficient nutrition and the expenditure required for uniforms, books etc which is often way beyond the means of parents, particularly in the context of growing unemployment. Finally top it all with the second language problem. All of us have been educated in our first language, we go to school to learn our skills in English and Afrikaans. Black students go to school and learn their own language, but learn science and mathematics in English. If any of us had to learn architecture in Xhosa, perhaps our results wouldn't be what they are.

Another incredibly frustrating aspect of Bantu Education is the ideological component of it - for black students their education cuts them off from their history; one that might be different from that propogated in our schools and in our universities as well.

If we look again at Dr Phillips' and Dr Verwoerd's statements and the education crisis of today, we realise that not everything they planned necessarily worked. From this we can learn that education is both a weapon and a tool. A weapon often used by ruling sections and ruling needs, to maintain the status quo, but also a tool which those that wish to

oppose the status quo can use. We just need to look at recent South African history - the massive resistance in the 50's and again in 1976 - to see this.

At this point it would be important to understand, if indeed we are going to be critically analysing our own education, what the source and uprisings of 1976 were all about. It was not merely the content of the education, nor the inferior facilities that people experienced that brought about the '76 uprising. The decisive factor was the government decision that Afrikaans needed to be put on a par with English. Thus black students would learn for example - maths in English and science in Afrikaans and then still their home language. Enough ultimately to break the back of any student in those schools.

Indeed students came out in protest, and the government responded as it has always done in the past - massive shootings resulting in over 1 000 dead. It happened again in 1980, again in 1984,1985,1986, - little has changed.

If we examine the manifestations of the education crisis, we begin to ask ourselves the question, the answer to which not many white students understand - why boycott your education, why burn your schools ? But we should go one step back and ask ourselves another question - did we hate our education bad enough to boycott it ? Did we hate our education bad enough to burn our schools ?

The reality is that black students in South Africa today do hate their education that badly. This is something we need to take very seriously when examining our own education. Before doing so lets briefly look at what students have done over this period.

Grievances raised around the country, more recently, explain quite clearly what has been going on in the schools. What is it about control in black schools that ensures that nine students a day are admitted to hospital in Soweto because of excessive corporal punishment ? What is it about an education system that has an atmosphere of sexual harassment woven into it to the extent that many women students are raped and sexually abused? Other grievances are the enormous lack of qualified teachers and the age limit laws that cut students out of school once they have reached 20 years of age (not taking into account that many students have to leave school to earn money to pay for their education). The culminating demand was for the formation of democratically elected SRCs; the education authorities could not come to terms with the grievances of students, and students needed ruling bodies in the schools run by students, which could determine exactly what happened at school.

The SRC set up at Vulemasangu High School in Bloemfontein is one such example. The SRC was made up of two representatives from each class in the school, ultimately making up 48 people. It had the right to meet during school hours and set up five sub-commitees. First entertainment and sub-culture, secondly debating committee - debating political issues, thirdly an education committee, aimed at supplementing the inferior education that younger students were receiving, fouthly it set up a disciplinary committee, taking discipline out of the hands of the teachers and putting it into the hands of students, and lastly it set up a sports committee. When asked why it had set up this last committee because there were no sporting facilities at the school, the SRC argued that it was necessary for students to be fit. The reason being that during the boycotts embarked upon to demand the right to an SRC, it was found that a lot of students were too unfit to run away from the police.The sports committee was therefore necessary to ensure this didn't happen again.

We now have a picture of an education system that is so different from what we experienced at school that it is almost unbelievable, and perhaps at the same time, hopefully, we're developing an understanding of the way in which South African education is used by those in control, to maintain control. Finally what we see is a South African community split in two, almost in two seperate worlds, and that is something our education system has to overcome, or otherwise confine itself to irrelevance.

In the context of Bantu Education, and our own education, what role do our universities play? For a period now the white universities have been able to address the education crisis from a distance, almost neutrally and objectively. They haven't been seen as part of the education crisis.

However, it is incredibly important that they are regarded as part of the education crisis, as it would be accurate to say that the only reason why white universities are not in turmoil today is specifically because of our social background as white students and the education system that we go through. That is, an education system that ensures we will be the professionals of the future and moreover that we won't oppose this system that ultimately works in our interests.

So let's critically examine our universities and the courses that are being taught. Firstly what characterises the university is that skills are compartmentalised to such an extent as to ultimately cut out from a specific profession or skill the specific social context in which it will be employed. This occurs systematically in engineering, architecture and education, to name a few.

Another important aspect is the atmosphere, especially within the white, english speaking 'liberal' universities, of presenting education as neutral, objective, value free, not having a political component to it. What is important about that is having an understanding that the skills we learn today and the overall functioning of the universities is teaching skills which are going to be employed to the benefit of ruling sectors in our society. So we learn architecture that will be employed to build houses in the Northern suburbs or we learn medicine which will be deployed to treat middle class illnesses in the white areas. We don't learn about real grievances most South Africans face.

At some stage we could have understood this lack of course content as being inevitable in universities that are separated from the reality of black South Africans. Perhaps it could have been seen as a sin of ommission. But as both the political and education crises have grown, it becomes a crime of ommission. The crime being that our universities are producing products that are out of touch with the social context within which they will be employing their skills. Our universities are producing people that are part of the problem and not of the solution.

To become a part of the solution is the challenge all students face. We must ensure that the way in which we learn skills and the way in which we employ them once we leave university is done in such a way that will contribute to the building of our South African nation, the building of a non-racial and democratic South Africa. Because of the way in which we are distanced from the reality and life experiences of the majority of South Africans, we can only do this in one way, by making ourselves more accountable to the black communities. We can only do that by making our universities more accountable to the needs and aspirations articulated by community organisations and trade unions. We can only do this by ensuring that the research our departments conduct, that the innovations and the creativity that individuals within our department have, are ultimately combined with the accurate aspirations of community organisations and trade unions - the organisations representing South Africa's people. Only then can white universities claim to be relevant, only then can they claim to be educating students in a way in which will contribute to the building of a new South Africa.

Ivor Prinsloo

This paper shall cover the two areas of architecture and then the education of architects.

As students and staff we find ourselves in reciprocal roles, if this is so, then we need to share concepts to set, create and converse together otherwise it is quite pointless. This seemingly modest requirement is not really that simple. Architecture, like our politics, is an all embracing human activity and therefore a complex activity that is completely resistant to neat definitions or descriptions. This does not mean that we should not talk about architecture, nor does it mean that we cannot be objective in our reasoning about architecture.

We might say that architecture is about buildings, but the moment one says that, you are already into an arguement, so architecure is about drawing, which incidently I don't agree with and we could debate that. Nevertheless I think it is a debate and one we could deal with objectively and conclusively. Even if we agreed on the concept of building, we still

have to deal with questions of when a building is or is not architecture and whether one can have good or bad architecture. I'm not very good on abstract reasoning but it strikes me that the resolution of issues such as these can never be more really than an inclination of what is good - the matter of a shared collective judgement.

It is along these lines that I would like to develop this theme. It's often stated that architecture is an art as distinctive from science etc. It is often assumed that it's a matter of personal expression on the part of the architect, the persuit of originality, persuit of the experience of someone who has fallen.

In my opinion, this private pursuit is incorrect and not at all useful, but downright useless. Self-expression is no more than an attempt of individualism to perpetuate itself in a certain sense - but architecture is about a shared aesthetic sense rather than an individual one. Aesthetic judgement is subjective, for it consists of an attempt to express the individual experience. However, in another sense it is objective as it aims to justify that personal experience by presenting reasons which are valid - one must decide for oneself. Surely if there is a teacher/learning relationship then that is exactly what should happen.

Aesthetic practise and creativity need a special kind of freedom, but real freedom requires a sense of consciousness, the architecture design must inevitably be constrained by 'The Rule of Obedience'.

The architect must translate interaction into terms that are publically intelligible, that you like his (sic) building with an order which is recognisable to the expert but also to the ordinary person. There is no public order until people can see it, public order is not given however, it is an achievement which depends on its' being recognised daily and newly during the course of business transactions and commerce and all that. It necessitates something like a repeatable vocabularly; intelligible forms, suitable and interesting details and so on. To build well is to find the appropriate forms, that means the forms that answer to, what endures and not what expires, administers not just to private dreams, but to ourselves as creatures with identities transcending in some present purpose and desire.

Appropriateness refers to a sense of visual validity. It is certainly true that an attempt to give universal terms to building, have been peculiarly inadequate and there is never the slightest difficulty in upsetting critical judgements which derive from them.

But the absence of universal terms is not in itself better fitted as objects of collective aesthetic interest than their rivals. We might be able to show that there is a right way of seeing them and that in so seeing them the aesthetic impulse and its associated experiences are satisfied, certainly in doing so we are making moral judgements and since moral judgements are imperitaves, they are neither true nor false. What they describe if anything, is not the world we live in, but the world for which we aim - a kingdom of ends.

Now, 'associate contracts' may continually escape definition, but nevertheless judgements about authentic values, a sense of validity, the question of appropriateness play an important part in bringing together action, purposes and values which may be impossible to pursue but are connected with human satisfaction and development in some way.

Now the question of direct engagement in social practice by means of architecture is equally difficult and inconclusive. The relationship between action and social meaning is very tricky as many are possibly aware. It seems that content and meaning in human life is related to our practical knowledge of ourselves, that is knowledge we obtain by putting ourselves in action. It is related to a sense of competence of taking responsibility for acts, feelings and perceptions which we designate as ours. Conversely the alienated man, (and I shall try and cast this in a non-sexist way, which I find impossible), does not know what he is doing or feeling in daily labour. He cannot bring himself to be in the eyes of the world, only by transforming the world into a visible and tangible record of things can a man (sic) actually find place for himself there. There seems to be some connection between this transformation and appropriateness in architecture, and the collective shared aesthetic in architecture.

Now after all that, education! It is surely a matter of generating a shared

consciousness and architectural experience. The idea of architectural experience is something I find I can't get away from, as I feel there is some close relationship between the way we perceive our own competence, the mental structures that we have, within ourselves as we handle events and transactions. The ability to participate imaginatively in future experiences is one of the aims of aesthetic education. It's only by the cultivation of present discrimination ie: learning to be critical, and the present sense of what is appropriate, it will be achieved. It is this kind of aesthetic education which has enabled men and women to build structures that have remained agreeable and meaningful beyond expiry.

The development of judgement and a sense of validity is central to education. The means of acquiring this has to do with the indepth knowledge of experiences of others in history and presently in study and field experience.

We need in South Africa, an understanding of historical and contemporary structures of our society. I think its vital that there be a shared and conscious reaching out to the African experience and historical condition. Thereby it is simply in that shared consciousness and judgements that will make the difference between relevance and irrelevance for ourselves.

Pancho Guedes

If one is talking about educating, then I think that during my regime at Wits I have tried to come unstuck from the South African context most of the time, because I feel that if one has a moral responsibility, it is to talk to younger people about the possibility of them becoming citizens of one world and not South Africa.

I think the minute you begin to look at the South African context, you begin to have very strong nationalistic implications, which might be very strongly felt at the moment here because there is great confusion, but elsewhere in the world there are very strong feelings about demolishing the idea of nationalism. I wish I had brought along two letters that Camus wrote to a German friend. Camus was a writer from Algiers, who found his way to Paris where he hung around. He was a member of the resistance during the Second World War, and before the war ended was editor of the underground newspaper which was spread all over France. The Nazis andt he Vichy Government could not cope with this. In corresponding with a German friend the following theme was discussed. The German friend felt a totally overwhelming committment to his country, Germany, and told Camus that his country was above all else. Camus felt that he did have that kind of feeling towards France, and yet his friend told him that he was a bad Frenchman. Camus wrote back and told him that, yes, he was a bad Frenchman in the context of what the German had thought, but he'd actually had to grow through this and suffer a series of humilities to realise that his committment was not to France, but to the whole of humanity.

Now if you are going to deal with the educating of architects anywhere in the world, I think you should provide a platform that deals with the basics of architecture in a western culture. Then establish some kind of a dialogue between Western culture and the reflections of Western culture (which is what all of the world had the delusion of becoming) and all of the other local cultures which give some identity to people. Europe, the cradle of civilisation, now negates nationality, in preference for the search for identity in the city, in the actual place where you live, in regionalism and a direct participation in the affairs of that place.

If you are at all concerned with providing an environment for people to learn in, you must inevitably establish an eclectic position. If you establish a series of very tight theoretical frameworks you have only one point of view, one dominating thought, which is the worst thing you can do, even in the very small South African schools. I think this is our worst disadvantage, because we are schools of 150-300 people and when we reach 300 people, the administrations of universities seem to think we have a tremendous school. That is because South African universities are formidably rich, they have such fantastic subsidies from the

government that they can dissipate the funds in all sorts of amazing manners.

If you study the economics of most European schools, you realise that those schools have an immensely restricted budget and an immensely large number of students. What they are providing is an education is architecture. The most negative aspect of South African architectural education, is that it converges into one kind of professionalism.

I believe that any school should expose students to the multiplicity of options that exist for you to operate as someone who is educated and has some kinds of better knowledge about some aspects of architecture. The other aspect I find condemnable in South African schools, is that the schools follow the same precept that the whole university follows, that the kind of education you receive is one that always converges towards a great speciality. You virtually isolate a few microbes, then spend years concentrating on them, finally getting a Phd.

The universities devoured the schools of architecture, which were initially separate, having nothing to do with the universities. We were taught in the very old fashioned manner that you became an artist, who learnt painting and sculpture in the school, then attached yourself to a person outside who was an architect with a practise and worked with them, submitting certain projects to the school for appreciation.

Now the best way, as everybody knows, is to have a studio master (sic) because the most a studio master lasts is 6 months. I mean the first 6 months you can really cope with a studio master, but the second 6 months, life is extremely dificult for the studio master unless he is adventurous enough to give you a multiplicity of alternatives to each of the projects he(sic) sets. That I think is the reason why Cape Town, very wisely many years ago went into a semester timetable.

Now what should you teach at the school? We teach things which are quite outside the scope of the university. We have and always have had a very historicist attitude towards architecture, even when no history was taught during a brief period of the modern movement (we were still being taught history out of building construction, because all that technology is, is really historical tradition and a part of the crafts).

The other great thing which happens in the school of architecture, is the invention of extraordinary and quite absurd works, presented as drawings, paintings and models, which gives us a tremendous ability to cope with an alternative reality. The first reality is the reality of the drawings and models. Some people feel that you cannot educate people, you can only train them (like you train circus dogs), but I believe you can leave out the idea of training and you can educate people. Now the best way of educating people is to educate yourself, so that when you have to communicate something you set yourself the task of looking at it, finding out as much about it as possible and by speaking about it. Something that happens very rarely in schools of architecture around the world.

We have a totally different fynamic from the other courses which are taught in the university, operating in a totally different set of circumstances.

One idea which has occured to me is that somehow because we are all such small schools we cannot generate sufficient friction and tension within the schools. I think one of the things which is very positive is when you have a delightfully chaotic congress likethis one, and not an overstructured one, is that we seem to rub a great deal of intensity back and forth just by being together. I think that one of the fundamental things in a school of architecture is that the school meets once a day for a common discussion where you have to make a presentation of some sort and you have to provoke a reaction. Now you know what a tremendous struggle it has been to have two days a week to do that at Wits and we know very well how difficult it is even to get the members of staff to participate in that discussion but somehow you call a congress and you arouse everybody there to that discussion.

Perhaps it's purely a question of the enthusiasm and the friction that goes on between different schools and the aggressiveness that goes on between all of us. Now some of you are very worried for various and different reasons. We've seen people who are very desirous of giving

themselves to those who are oppressed who have had a bad deal in this country, for very good intentions. Yet the possibility of doing so is blocked by professionalism. It is something you cannot carry out within the framework of professionalism, but something that you can only carry out as an individual, as a 'terrorist'.

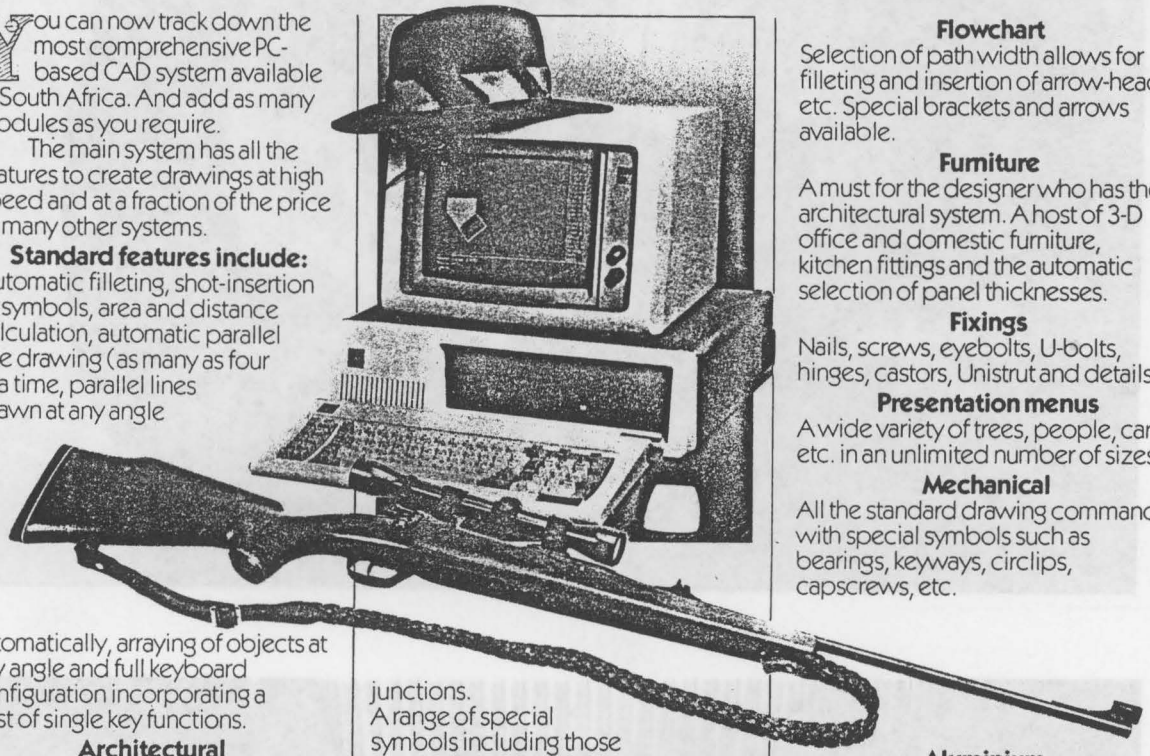
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UTILITY EQUIPMENT



Oh dear I'm really tired!

DAY 5 THE LIVING CITY DAY FRIDAY APRIL 5

• 0900 CRITIQUE OF THE TRUTH BUILDING
CRITICS: Leon van Schaik Vaughn Burns
Pedro Gueder Ivan Kadey Irwin Manoim

• 1030 the ubiquitous TEA

• 1100 EXPRESSION BY USERS
· GRAFFITTI LECTURE Ivor Powell
· MUSIC AND ARCHITECTURE Mary Rorich

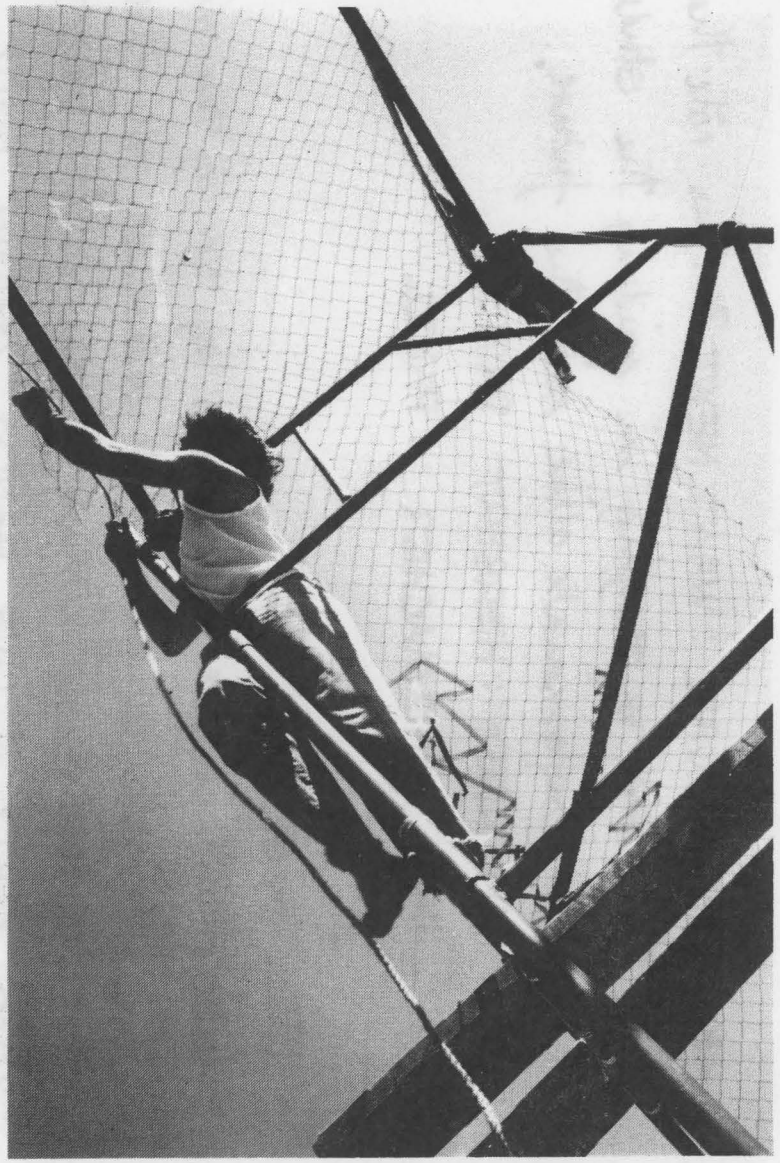
• 1230 LUNCH

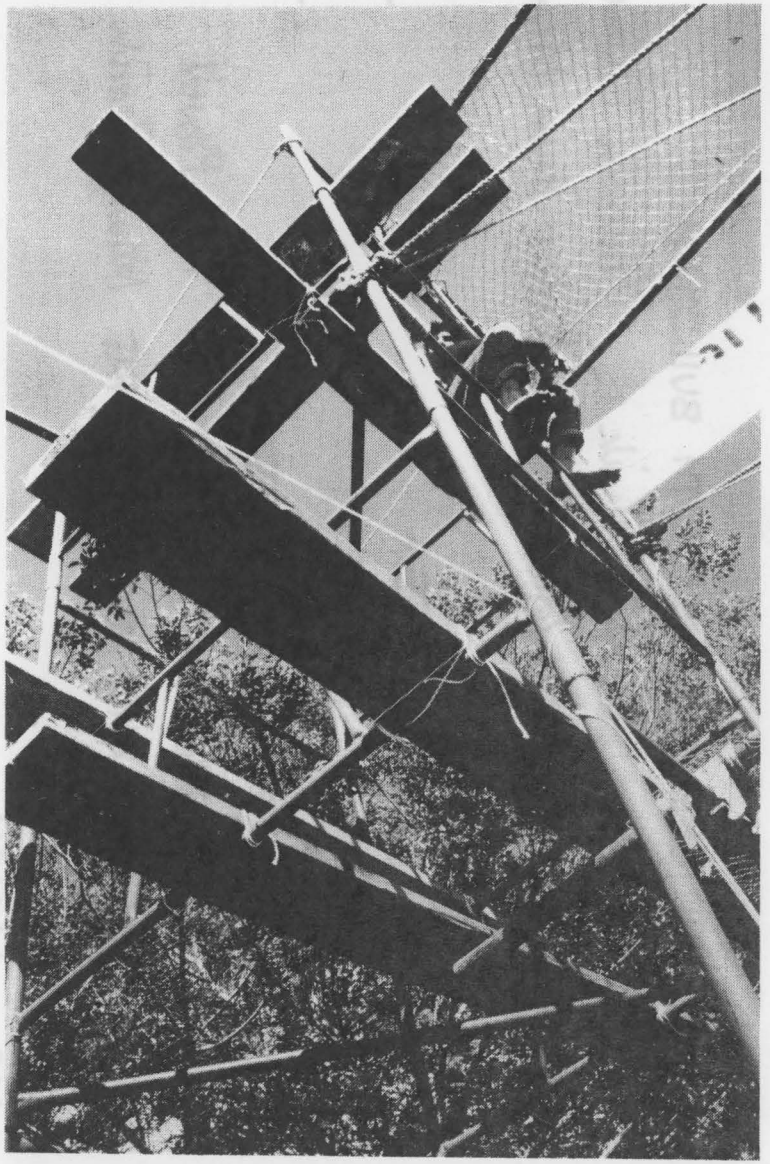
• 1400 THE FUTURE : WHAT NEXT? : The rôle that the ISAA is playing in guiding the students and professionals alike into the future.
RON KIRBY : HERBERT PRINS
HANS SCHIRMACHER : PANEL

• 1530 once again TEA
• 1600 NASU debate and motions by reps of the various university delegations and individuals alike. Elected of NASU Exec. Closing Address : WITS COLLECTIVE
• 2030 PARTY & LIVE BANDS : Gallant House
'METROPOLIS MOVES' 213 President Str.

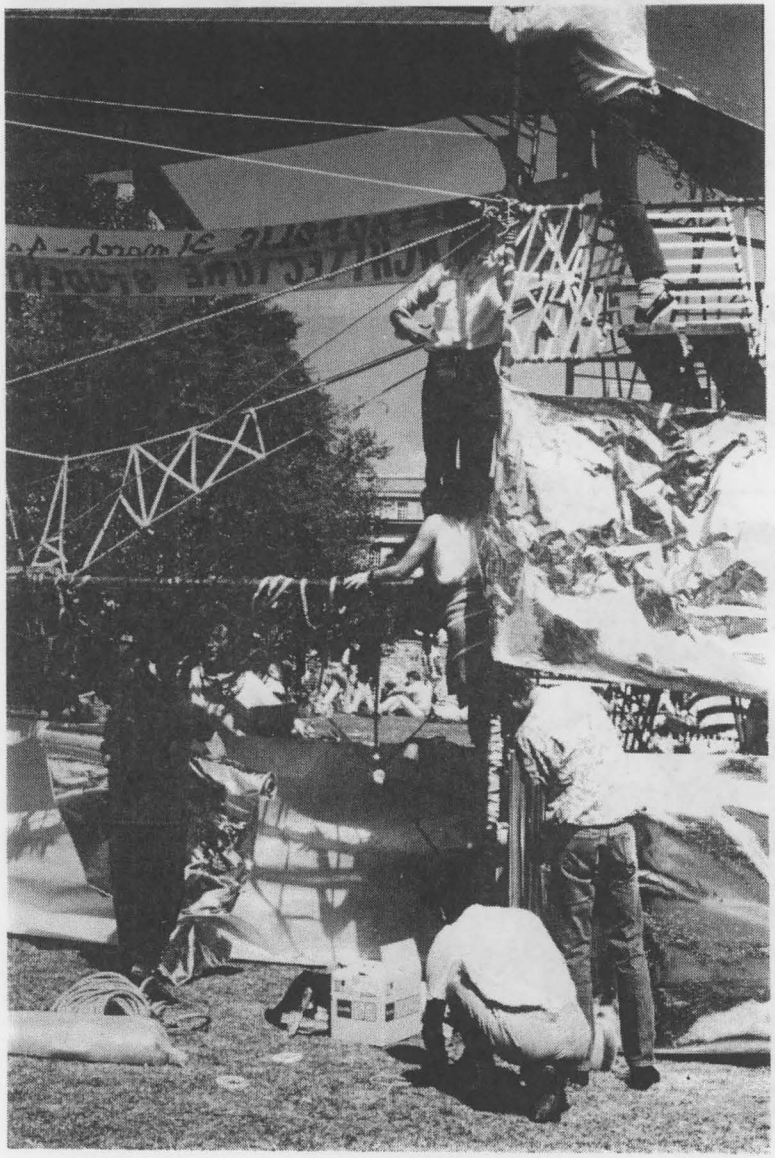
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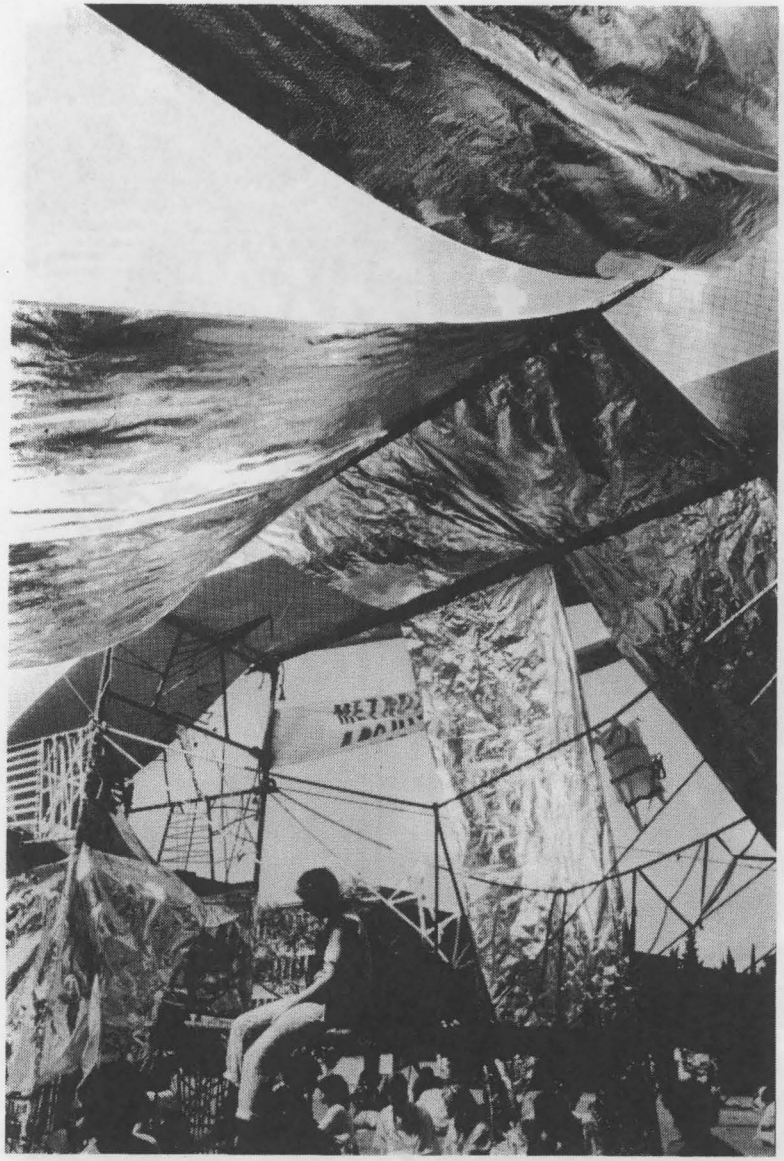
Structural metamorphosis

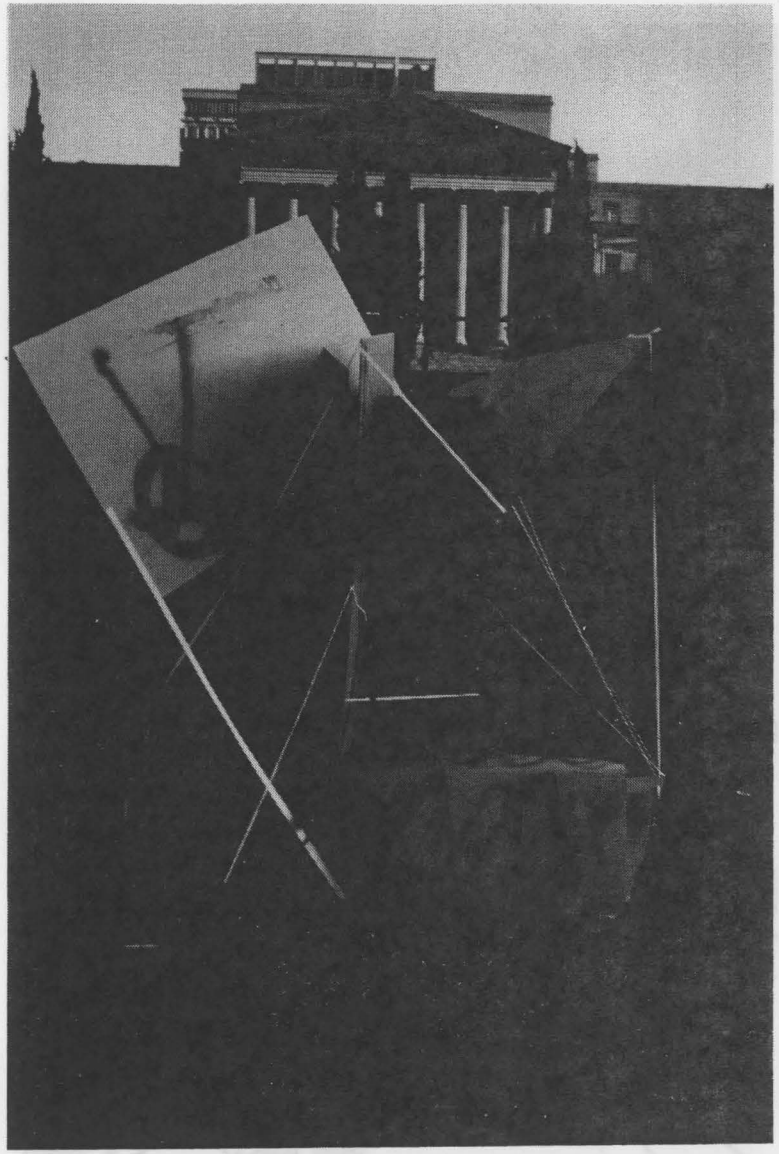












Motion 1 : Architectural Education

Noting that:

1. The composition of Architectural Schools is overwhelmingly that of white students, as identified by this Congress.

2. As students who have grown up and been educated under the apartheid system, we are divorced from the full realities of this country

3. The Congress has isolated areas of architecture which, if they are to be addressed, require change in our educational system, and

Believing that:

1. Architectural training should be made as accessible as possible to all the people of South Africa

2. The present role played by architects in this country is one of mainly serving individual and not community needs

3. Our current architectural education inadequately prepares us for our potential role as architects in this country

4. Students need time, information and resources to identify the roles that they are to play, especially for dealing with our context

5. We further believe that this will help in developing a regional architecture and thereby will involve us in the process that will lead to solutions to this country,

We resolve that:

1. While recognising in the long term apartheid and its educational structures are the root cause of the unequal access to architectural education, on the short term we resolve that NASU must investigate the possibilities of:

a. instituting architect-in-'education' schemes

b. making available bursaries and fundings

c. and any other steps deemed necessary

2. In dealing with our context as architects in South Africa, NASU needs to establish workgroups to address:

a. the building of relationships with community groups

b. the evaluation of current courses being given in our schools; to begin investigating alternative courses or the streamlining of redundant ones; and to improve contact with Departments of Sociology and Town and Regional Planning Departments etc.

c. the extension of vocational education, eg: the inclusion of building clinics into our curricula

d. the establishment of courses to investigate the use of alternative and approporiate technologies

e. that student representatives on committees be given the right to invite, appoint and evaluate lecturers whom they deem necessary

f. that students invite the staff at the universities to support these student initiatives.

Motion 2 : Restructuring of the ISAA

Noting that:

The proposal for the restructuring of the ISAA which was publicised in 1985, and

Believing that:

As students of architecture, we have an interest in and a concern for the future of the profession,

We resolve that:

The NASU executive should, at the earliest opportunity meet with the ISAA executive to discuss effective student representation on the ISAA at a regional and national level.

Motion 3 : Alternative to SADF conscription

Noting that:

All white South African males are conscripted into the South African Defence Force for a total period of four years active service, and

Believing that:

We, as architects, can be far more effective in using our skills to the service of the people of South Africa,

We resolve that:

NASU should request the University Administrations to support our call and begin to investigate how architectural students can best use this time to serve the people of our country in an alternative form of community service.

Motion 4 : Public Buildings

Noting that:

1. Buildings in our cities, although commissioned by the private sector, ultimately serve a public function, in as much as they form an integral part of our lives

2. these public buildings are generally awarded to single architectural firms who, on their past record, have not addressed people in the street

Believing that:

Competions open to all architects and students alike will realise buildings that will better serve the public and realise a better architecture.

We resolve that:

NASU should actively campaign for the establishment of open competition for all public buildings.

Motion 5 : National Education Crisis Congress

Noting that:

Our Architectural Congress took place at the same time as did the NECC in Durban, and recognising the current crisis, both in the general education of all South Africans and , more specifically, in our own architectural education,

We resolve that:

Architectural students apply themselves to working towards a truly democratic , non-racial South Africa, and that NASU send a letter of support to the NECC.

Motion 6 : Johannesburg Centenary.

Noting that:

1. It is 100 years since the founding of the Johannesburg Metropolis where our Congress took place

2. Johannesburg has a history of forced removals and urbanisation, impoverishment, exploitation and division

3. The architecural heritage of Johannesburg is under threat from a lack of legislation, a lack of principles of conservation and from the destruction of buildings and monuments

4. Much money has been spent on Centenary celebrations

5. There exists much resistance and oppositon to the centenary celebrations from political, community and cultural groups, and

Believing that:

There is little to celebrate in the history of Johannesburg

We resolve that:

1. As architectural students, we should reject the centenary celebrations

2. We should appeal to the architectural profession to protect the heritage of Johannesburg and to act for legislation to this end

3. We should call on the Centenary Committee to display its goodwill to the people of Johannesburg by recommending to do away with the Group Areas Act, influx control and the separate education system; and to undertake projects to upgrade services and conditions in Johannesburg's townships.

A statement by Mark Palmos : A Stand Being Made

"Did you notice how everyone hissed and corrected the one speaker who addressed the woman chairperson as 'Chairman' ? This, although seeming petty, is a stance taken because of the desire to change attitudes of the past. The word manhole or humanity will be used with ease one day, but only AFTER a period of time when this seemingly petty stance has been taken. In the same way, an idyllic stance about the position of architects building police stations and state buildings is also necessary to help force change."

Motion 7 : Architectural Awareness

Noting that:
1. The perceptions that the public in general have of architects and architecture
2. The conception of architecture held by developers and bureaucratic officials,
Believing that:
This conception is adversely affecting our built environment
We resolve to:
Set up a group to bring to the notice of developers, public officials and the public in general, issues deemed important to enhance the awareness of architecture and the built environment of these people.

A statement by Anton Gonnissen: Masters student at Wits

"I would like to remind every member of the architectural profession, especially the students, that the muscle of reform lies in their pencils and not in their tongues."

Motion 8 : Support for the schools' magazines

Noting that:
The value of effective communication in informing and stimulating debate and advancing ideas,
Believing that:
Magazines are particularly useful tools of communication,
We resolve that:
A NASU publication committee be formed to promote the publication and distribution of all school magazines and newsletters by encouraging co-operation, pooling of knowledge and sharing resources.

Passed unanimously

Motion 9 : RIBA Derecognition of Courses.

Noting :
RIBA's decison to withdraw recognition of our architectural educational institutions,
Believing that:
RIBA's decision was motivated by its concern with the apartheid system and the inadequate representation of black students in our schools,

We resolve that:
1. NASU will apply for re-recognition to RIBA only when architectural training is equally accessible to all South African people and when we are satisfied that the general architectural profession is actively addressing the needs of all South Africans.
2. As students, we accept RIBA's decision as a challenge to deal with the root cause of conflict in our country, and to make our universities, profession and society representative and reflective of all South Africans.

After discussion, the motion was carried with 12 abstentions.

Motion 10 : Impelementation of the Warsaw Declaration

Noting that:
The Institute took a formal stand on the Warsaw Declaration of 1981, which was reaffirmed by the Congress of members in 1985 at Sandton,
We resolve that:
NASU should campaign for the formal acceptance of this Declaration and action thereof by the ISAA

It was then proposed that:
The Wits Congress of 1986 proposes that NASU investigate the inclusion in its Constitution of the Warsaw Charter for Architects.

After thanks to the Congress organisers being given by various speakers, the Wits Congress of Architectural Students, 1986, was declared closed.

the truth

national student project 1986.

In 1921 , the Brothers Vesnin designed a new headquarter building for 'Pravda' Newspaper in Leningrad, Russia 'Pravda' is Russian for truth. At that time, what was seen as essential when designing, was the unconcealed expression of structure, movement, technology and material. This exemplified what became known as the 'Constructivist aesthetic'. The Pravda Building embodied the holistic integration of the material and cognitive worlds sought by the constructivist method.

You are similarly asked to design the headquarters for a new weekly Newspaper, "The Truth" which has recently started publishing in your city. The printing and distribution of the newspaper will take place elsewhere . Your building is to house the news processing and production facilities, as well as the administration, archives and public relation functions. The choice of site is up to you; whether the building is free standing, attatched or reuses existing space. What must be born in mind is that the newspaper wants to make its presence felt in the city; the building must give the newspaper and what it represents, a public face. The intention of the project is to stimulate the development of ideas, abstract and real, and their translation into architectural form; ideas about designing for the media, in a public place, in South Africa now; about the necessities of and the possibilities for architecture.

BRIEF

Newstand
- for sale to passing public.

Reception
- receptionist/small waiting area.

Newsroom
- open plan office space for 7/News staff.

Offices(No.2)
- opening off newsroom for editors/secretary space attached.

Conference/Dining Room
- for 10-15 people.

Kitchen

Telex Room
- accessible to news/production rooms.

Archives
- for clippings and filing of past copies.

Production Room
- open plan , accommodating electronic editing facilities for 4 -sub-editors, 1 photocopy machine, 1.5m long light table(No.3)

Dark Rooms(No.2)
- 1 for standard B/W developing and printing.
- 1 production dark room, 7m by 5m, accommodating plate working machinery etc.

Administration
- 4 offices with secretary space attached.
- Messenger with scooter.
- Cleaning staff(No.1).

Note:

1. All admin. rooms , editorial offices, conference room and archives should be accessible to the public.
2. The brief is able to be extended/adjusted to accommodate any other facilities - electronic billboards, advertising masts, public address system etc, that you may wish to add.

Submissions to be self-explanatory and;
1. adequately illustrate your building
2. describe the development of the ideas behind it
3. explain the significanse of your site.

Format up to you; any technique permissible!

The Warsaw Decleration of Architects 1981

"We acknowledge the basic needs and rights of people."

1.0 Every individual had biological, intellectual, spiritual, social and economic needs. Those are equally important and must be pursued simultaneously, as a matter of right of every human being.
2.0 Each society as a whole has rights to its identity and the continuity of its indigenous culture.
3.0 Human settlements must provide a framework of freedom, dignity, equality and social justice. Their planning should include citizen participation and reflect full respect for all needs and rights, taking into account the necessity for balanced development in harmony with a nature.
4.0 Improvement of the quality of life for all people should be the objective of every program for human settlement. These programs must meet the basic needs for food, shelter, clean water, employment, health, education, training and security without discrimination as to race, colour, sex, language, religion, ideology, national or social origin.

For the majority of the world's population these needs have not been met, therefore architects and planners should assume their share of the responsibility for meeting these needs in the process of shaping human environment.

Statement at TPI Meeting (7/7/86) - proposed change to constitution.

Mr Chairman, Members of TPI

Initially I came here in my individual capacity, but have been turned into a representative, by the expulsion of the other students. I like so many other students, will be an Architect and member of the Institute in the immediate future. We feel that the decision taken here today, will strongly influence the way we will be able to participate in in a developing and changing South Africa.

Just recently, the students were held to ransom by RIBA, who decided to no longer recognise our degrees. It's not really important to know what motivated their decision, whether it was concern for what is happening in South Africa, or political expediency.

What is more important is that they did not chastise the universities, nor the Institute, who could play a far more important and far reaching role in this country, but picked on individual students, who were not only not consulted, but not represented - paralled by today's affair - students, individuals who are just pawns in the whole system.

We believe that the institute should be an umbrella body, recognised as such. The only way it can be representative of the concerns of all its members would be for it to find the lowest common denominator, between us.

There is no doubt, that people here have varying political affinities, however the one thing that we all should have in common, as human beings, and as members of a most honourable profession, is the defence of and promotion of individual human rights. We should stop at no action, which promotes and ensures human dignity, including care for the human condition in the way that we participate in the fashioning of the human environment.

The stand that the Institute takes, will play an important role in the way it is perceived by members of the public, as to whether or not the Architects of South Africa are serious about participating in changing a most inhumane and unfortunate system.

The decision taken today, will have some short term effect, but will definately play a part in the future, when I and the current students will be practising architects. It is for this reason that I and many other students support the motion, and call on you when deciding for yourselves, to think of not only how it will affect you, but the generations of architects

that will be working in this country in the immediate future.

STATEMENT NOT READ AT TPI MEETING DUE TO NO DEBATE!!

A report on the Students Perspective:

In the light of the meeting recently hosted by the Transvaal Provincial Institute of Architects (TPI), called to address the changing of the Constitution, within keeping of the First Principles of the Warsaw Charter, which had initially been supported by the delgates of the Insititute of South African Architects (ISAA) in Warsaw (1981), and reaffirmed in Sandton (1985), I feel it is necessary to try and analyse the student position.

This analysis should by no means be seen as the official or mandated viewpoint of the Student Body (SB) in general, since I've embarked upon it, in my own individual capacity, substantiated however with fact, together with a certain amount of speculation.

There is no doubt that the SB does not present a single unified front, in fact in this case, paralled by many student organisations throughout the country, cannot claim to have totally organised nor politicised its' constituency enough, such that all students participate in what many of us see as crucial issues.

It is not unique to South Africa, but exists nevertheless, that in such a political climate, so many students claim to be neither interested, political or totally concerned. It is the milieu in which we operate.

At an Architectural Student's Congress hosted by the University of Cape Town, in April 1985, the idea of a National Architectural Students' Union (NASU) was mooted. The idea met with favourable response and delegates from all the schools in the country came together, twice in 1985, as a steering committee for the drafting of NASU's constitution. NASU was officially launched at the National Congress held this year at the University of the Witwatersrand. Although lasting a week, dealing with many diverse issues facing the Architectural Profession and Students alike, the Congress's express purpose was to formulate the direction that NASU should follow.

During the last session of the Congress, a NASU debate was held, with the intention of passing motions (Transcript of Motions: Appendix 2) that the Executive would be mandated to initiate. It must be understood, that although 400 students from the various schools attended the Congress at times, the motions passed cannot be seen as totally representative of the feelings of all the students, who either attended or those who felt it unnecessary to participate at all.

What it does demonstrate however, is the viewpoint held by those students who felt the need and desire to participate in a greater range of architectural issues, facing us as students of Architecture and all the people of South Africa.

That the NASU representatives and local SBs are not meeting with overwhelming success in their endeavours to not only sign up the general students as members, but also to encourage them to participate actively, is perhaps symptomatic of the general apathy faced by all organisations, as well as the demands made on the individual by the architectural course itself. What is important however, is that no real opposition, either organised or unorganised, is being felt, perhaps demonstrating the acceptability of NASU itself.

Although we understand that NASU cannot be seen as being representative of the sole viewpoints of the students, we recognise its importance in the fact that it both draws its members from all the schools (English and Afrikaans) and is the only group that is organising around the issues that we feel need to be addressed. Special attention should be given to Motions 9, 10, 11 with respect to the recent meeting held by the TPI.

Motion 9 addresses itself to the recent derecognition of our degrees by RIBA. The fact that our degrees were derecognised, whether for the concern over issues here in South Africa, or for political expediency is unimportant, what is more important is that the students were not only not consulted, but not represented in the delegation that met with RIBA.

The derecognition of the degrees seems aimed at no one specific, but has more serious long term ramifications for the individual students , who neither participate nor are responsible for the educational policies pursued by the Government, the universities or the ISAA.

It is ironic to think that the institutions who collectively or individually could play more prominent and far-reaching roles in the planning, developing, initiating and directing of policies in this country, pertaining not only to education, but also to the general living conditions and standards, are not picked out nor chastised by RIBA.

It is interesting to note, that when the TPI met and considered our motions, they felt that they could only help with motion 2, in the instituting of a meeting between both the NASU and ISAA executives. What is demonstrated explicitly is the difference in attitude, as to what issues we as architectural students feel need addressing, as opposed to what our 'parent body' feels is relevant.

The rift is more than adequately reaffirmed, with respect to motions 10, and the events of the recent TPI general meeting. It is interesting to note that NASU is not actually an opposition body of the ISAA, and should be seen more like its nursery, in which many of its objectives are aimed at the improving of participation and relationships between the students and pracitising members of the profession.

The fact that NASU, has not only accepted the First Pinciples of the Warsaw Charter, but also passed a motion, calling on the ISAA to formally accept it (ie: constitutionally and not just verbally) and to take action on this declaration, has placed the two bodies on opposing poles.

In addition to the above, is the heavy handed manner in which the student observors were expelled from the general meeting, despite having previously petitioned the TPI in the form of a letter (See adjoined letter).

In this respect, I can only see the relations between the two bodies becoming more and more strained, as the ISAA, its provincial bodies and its members continuously make decisions and take actions without either student representation or participation (paralleled very strongly by the recent actions taken by RIBA), that ultimately have ramifications not only for the profession in the future, but also for South Africa in general.

If the ISAA and its regional bodies do not begin addressing the concerns as demonstrated by either sections of their membership or SBs, serious conflicts will arise.

Many students, on graduating will be affected by the decision of either having to join a body which has proven itself hypocritical and demonstrated its inability to be either relevant or realistic in South Africa today, or forgo their right to practise as architects. It is ironic that those people demonstrating correct sensibilities should be placed in such a dilemma, where their livelihood is threatened.

Although the TPI meeting, in which the majority of people present voted that the motion should not be put, will be championed as a democratic affair, it was just the antithesis. We witnessed the process of democracy being abused to deny a large number of people their right to speak. The widely based community and progressive organisations in this country, stand for participatory democracy, in which every individual has the right to speak and be represented. In this manner, the rights of the individual are protected, and should be defended at all costs by everyone, especially those bodies that 'claim' to represent us.

To this end the ISAA, with its monopolisitic control and direct state linkage, working under the guise and manipulation of democratic processes to their own gain, seriously poses a threat to our constructive participation in a changing and developing South Africa, as both architects and architectural students.

Clifford Elk:
B Arch 6 University of Witwatersrand
NASU Constitution Steering Committee 1985
SRC Representative of Faculty of Architecture 1985/6
Chairperson ADAD (Architectural Students' Association) 1985/6
Congress Convenor 1986
Co-editor RE-MOULD (Arch students magazine) 1986
Editor of Congress Documentation 1986
SRC Executive 1987

Introduction to Speakers

* **Clifford Elk,** currently completing B.Arch at University of Witwatersrand, Congress Convenor.

***Stewart Caddick**, graduated with B.Arch from University of Witwatersrand in 1986, currently working in London.

***Julianne Cooke,** graduated with B.Arch from University of Witwatersrand, currently senior lecturer at School of Architecture and Planning at University of Cape Town, editor of Architect SA and in private practise.

* **Iain Lowe**, graduated with B.Arch from University of Cape Town, currently employed by the Lesotho Government, running projects sponsored by the World Bank Building Schools.

* **Leon van Schaik**, graduated with B.Arch from Newcaste-Upon-Tyne, practised in England and lectured at the Architects Association. Lectured at the School of Architecture at the University of the Witwatersrand from 1976-1979, was in private practise and is currently lecturing again at the Architects Association.

* **Jo Noero**, graduated with B.Arch from University of Natal, holds a Masters of Philosopy in Architecture from Newcastle-Upon-Tyne, currently lecturing at the School of Architecture at the University of the Witwatersrand, completing a Phd on Housing, and in private practise.

* **Pedro Guedes**, graduated with a B.Arch from Cambridge University, lectured at the Architects Association and is currently in private practise in London.

* **Dennis Radford,** graduated with a B.Arch from Natal University, holds a Masters of Conservation from the University of Edinborough and a Phd on the Architecture of the Western Cape, from the University of the Witwatersrand, and is currently holding a Professorship at the School of Architecture at the University of the Witwatersrand.

* **Lindsay Bremner**, graduated with a B.Arch from the University of Cape Town, and currently lectures at the School of Architecture at the University of the Witwatersrand, and in private practise.

* **Keith Beavon**, graduated with a MSc at the University of Cape Town, holds a Phd from the University of the Witwatersrand, and is currently the Professor of Human Geography at the University of the Witwatersrand.

* **TAG (Technical Advice Group)**, is a service organisation made up of multi-disciplined practioners who specialise in offering a service to trade unions.

* **Jeff Zerbst**, graduated with a BA Honours and holds a Masters of H Dip Ed from the University of the Witwatersrand, and is currently a lecturer in the Department of Religious Studies.

* **Malcolme Purkey**, graduated with a BA Honours in English from the University of the Witwatersrand and holds a Masters in Theatre Studies from the University of New York State, is a founding member of the Junction Avenue Theatrical Group and is currently a senior lecturer in the Department of Drama and Film at the University of the Witwatersrand.

* **Derek Japha**, graduated with a B.Arch from the University of Cape Town, is completing a Masters on the State Housing Strategy post 1948, and is currently a lecturer in the School of Architecture and Planning at the University of Cape Town.

* **Elvis Daniels,** is a medical doctor, practising at Coronation Hospital, and is currently secretary of WRAC (Westbury Residents' Action Committee).

* **Rodney Harber,** graduate with a B.Arch from the University of Natal, is co-author of 'Traditional Hindu Temples in South Africa' and is currently a senior lecturer at the School of Architecture at the University of Natal, and is in private practise.

* **Andrè Hodgkin,** graduated with a B.Arch from the University of Cape Town and is currently in private practise.

* **Peter Rich**, graduated with a B.Arch from the University of the Witwatersrand. Is currently completing his Masters of Southern Ndebele Architecture and lecturing at the School of Architecture at the University of the Witwatersrand.

* **Dexter Moran**, graduated with a B.Arch from the University of the Witwatersrand, holds a Masters of Urban Planning from Columbia University and is currently in private practise in London.

* **Simon Radcliffe**, graduated with a B.Arch and holds an honours in Development Studies from the University of the Witwatersrand. Currently a full time member of Planact - a multi-disciplined organisation involved with architectural and developmental issues.

*__Marc Feldman__, graduated with a B.Arch from the University of the Witwatersrand, is currently in private practise and a member of Planact.

* **JP Delaporte**, graduated with a BA Honours in Philosophy from the University of the Witwatersrand, currently completing a Phd on Michel Foucault and lecturing in the School of Architecture at the University of the Witwatersrand.

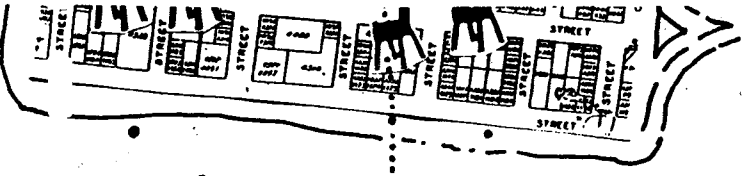
* **Dave Clemens**, graduated with a B.Arch and Masters in Urban Planning from the Universtiy of the Witwatersrand, and is currently in private practise.

* **Marybeth MacTeague**, graduated from the University of Toronto with a BA in Art History, holds a Masters in Architectural History from Columbia University. Previously lectured at the School of Architecture at the University of the Witwatersrand, played an active role in the Colosseum Campaign and is currently reading for a Phd in Architectural History at Cambridge University.

* **Brendan Barry**, President of the University of the Witwatersrand Students' Representative Council in 1984, and President of Nusas (National Union of South African Students) in 1985 and1986. Currently completing BA LLB at the University of the Witwatersrand.

* **Ivor Prinsloo**, graduated with a B.Arch and MSc in Town and Regional Planning from the University of the Witwatersrand. Holds a Phd in Urban Planning from UCLA, is currently Professor and Director of the School of Architecture and Planning at the University of Cape Town and is in private practise.

* **Pancho Guedes**, graduated with a B.Arch from the University of the Witwatersrand, practised in Mozambique from 1949-1975, and is currently Professor and Head of the School of Architecture at the University of the Witwatersrand.





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