

Anchoring

Imizamo Yethu, Hout Bay

Research Project APG5058S

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Master of Architecture (Professional)

by

Heike Toussaint

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*On the relationship between buildings and their sites,
and the space in between*

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Introduction

Anchoring my project

This paper takes its name from a publication by Steven Holl. Also entitled *Anchoring*, Holl writes that architecture and building are 'ground' or 'anchored' to their specific site. He states that the relationship between architecture and site should be more than purely functional - there should be a poetic, a metaphysical link.

This thesis started with an interest in a very specific site, the informal settlement of Imizamo Yethu in Hout Bay which is located on a steep slope on an old forestry site. Despite its great location, new houses built to replace the informal shacks are not 'ground' to site and few communal facilities exist to give people a sense of belonging.

This is an exploration of *anchoring* in architecture. Firstly, it is about the anchoring of community through public spaces and communal facilities.

Secondly, it is about the anchoring of the individual through buildings, which can impart a sense of belonging and attachment to a specific place.

Lastly, it is also about the physical anchoring of buildings to their specific sites.

The document is divided into three main sections, roughly corresponding to the three above-mentioned ideas about anchoring. Section A deals with the issue of *Squatting*. Its aim is simply to understand the issue of squatting in Imizamo Yethu in a greater context: globally, historically and physically. Section B, *Anchoring*, is an exploration into 'site', and the special conditions that emerge at the point where buildings meet the ground, with a focus on threshold spaces and their importance in architecture. *Intervening*, the final section, puts some of the ideas and principles learnt through my research to the test. It is a study and implementation of threshold spaces within the squatter community of Imizamo Yethu.

Squatting

A

*As far as the eye can see I
False Bay*

Once, a few years ago, I took the wrong turnoff as I was searching for a shortcut home. I eventually found myself on the R310, the coastal road to Stellenbosch –and so I started driving past Muizenberg, towards Strandfontein, Khayelitsha and Massassar. Thinking back to this day, I remember that it was spring because there were Namaqualand daisies and Arum lilies lining the roads.

But I also remember this as the day when, for the first time, I became aware of the extent and sheer size of Khayelitsha, Cape Town's largest squatter community. To my right, False Bay, stretching out to the horizon – to the left, as far as my eyes could see, shacks and squatters. This was the day when, for the first time, I realised what a large portion of our population lives in informal settlements.

Initially, I believed that squatters were unique to South Africa, a direct legacy of Apartheid planning rules and regulations. Only later did I realise that squatting is a global phenomenon; that in fact one sixth of the world lives like this.

As far as the eye can see II
Khayelitsha



Introduction

Informal settlement, shanty town, favela, squatter camp, blikkiesdorp. Many names exist to describe similar conditions of living which I, on the other side of the economic scale, only partially understand. What does it mean, to 'squat'? Why do people squat? Where do they suddenly appear from, these squatters?

As an architect I wonder: What are the spatial implications of squatters in Cape Town? How does one begin to intervene in settlements which have grown informally, without even the most basic of public infrastructure? What is my role as an architect? This paper has been grouped into two separate, but interdependent and related parts.

Part I, *Squatters*, locates the topic in its broader context, both globally and locally. It is a background study. While the focus of this section is on 'squatting out of necessity', a brief discussion follows on 'squatting out of choice'. In an attempt to understand local attitudes, this first part also looks at common perceptions about informal settlements. The Favela-Bairro Projects in Brazil and an experimental Dutch project of Larlé-Extension in Burkina Faso offer insights into work in spontaneous areas.

Part II takes a closer look at a particular squatter settlement in Cape Town. Entitled *The Case of Imizamo Yethu*, it is an evaluation of the social, historical and natural forces which have shaped this part of the Hout Bay valley. Locating the origins and growth of the settlement within the development of greater Hout Bay, this section provides an understanding of the site which goes beyond that of a mere quantitative analysis.

Part I

SQUATTERS

Understanding a global condition

*City of Squatters
Favela in Rio de Janeiro, Brazil
(Source: Newirth, 2005)*





A global phenomenon

The City of Cape Town is home to over two hundred informal settlements (Adlard, 2008). Some of these do not consist of more than a handful of dwellings set up inconspicuously on a piece of vacant land. Others, like Khayelitsha, accommodate thousands of residents. In Cape Town the arrival of squatters may be a relatively recent tradition – in a greater context, however, squatting is by no means an unusual trend.

Squatting is a global condition. According to author Robert Neuwirth, there are one billion people living without rights to land: this means that about one sixth of our global population are squatters. The number of squatters in the world is likely to rise, and it is estimated that by 2030 there will be over two billion squatters – one in every four people (Neuwirth, 2005). Despite these figures, many governmental policies regard squatting as a problem that can be eradicated (Duarte and Magalhães, 2006).

Informal settlements are unauthorised groups of self-built dwellings, often devoid of urban infrastructure and official streets, and generally occupied by low-income populations. Typically, they are built piecemeal by their own residents, without architects or municipal maps. In a constant state of flux, the settlements adapt as migrants move in and out in response to work found and lost.

Such settlements are frequently established in flood plains, next to railway lines, on steep mountain slopes,

or on rubbish dumps: places of high risk which have been deemed unfit for human settlement. Though this land has been left vacant for a reason, it often constitutes the only option for people without resources.

Similar to all squatter settlements are the conditions in which their people live. Many settlements are densely populated, even overcrowded. Cramped homes, often just a single room, provide little privacy for their occupants. Most of them lack access to safe water and sanitation, public services, basic infrastructure and quality housing.

Over time, squatter settlements may be improved and upgraded, eventually becoming legalised and absorbed into the conventional city. Others are demolished by city planners and land owners or destroyed by floods. A common characteristic of squatters is their marginalisation from the life rhythms of the formal city (Duarte and Magalhães, 2006).

Why do people squat?

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Squatters are people who occupy an abandoned or unoccupied space or building that they do not legally have permission to use. In the context of adverse housing circumstances, limited housing opportunity and

frustrated expectations, people become squatters 'when they remove themselves from and defy the norms of traditional channels of housing consumption and tenure power relations, effectively bypassing the rules of welfare provision' (Reeve, 2004).

Globally, the rapid urbanisation of an ever-increasing population has resulted in the exponential growth of cities. In places where the formal city has been unable to accommodate the influx, people have created their own living environments which exist outside the rules and regulations of conventional cities.

The majority of squatters are among the lowest socio-economic income groups and many live there simply because they have no other options (Neuwirth, 2005). Others chose the life in an informal settlement in order to be closer to work, or because of an existing social network of family and friends. Even when income improves somewhat over time, some people remain in informally built-up areas because they profit from renting out their piece of land, subletting electricity connections

or partaking in other activities which the uncertain nature of such settlements allows (Duarte and Magalhães, 2006).

Especially in developing countries, a large portion of the urban population lives in informal settlements. Typically, they are built on the edges of major cities and have little access to the conveniences which characterise urban life. Basic services such as sewage systems, running water and electricity are often non-existent. Consequently, living conditions are highly unfavourable and daily life is a struggle: water has to be bought from vendors or carried by the bucket-load from a near-by tap; electricity is stolen from a passing cable and household waste lines the streets – uncollected because the settlement is officially non-existent.

Not always do slums exist as a result of the authorities' negligence and lack of willingness to intervene. In many cases, the growth of new informal areas has simply been too fast and the construction of new shacks too rapid for the provision of adequate services (Adlard, 2008).

An important distinction needs to be made between squatting out of necessity, as described above, and squatting out of choice.

In cities such as London, Paris and Barcelona, squatters occupy abandoned buildings in the city primarily as a form of political protest against the high cost of housing (Reeve, 2004). Sometimes related to anarchist movements, members of these squats are often involved in social struggles and grass-roots activities. Besides being used for residential purposes, the occupied buildings variedly serve as social centres, cafés and pirate radio stations.

Squatting does not only occur in and around cities. In Spain (as in so many countries), urbanisation has left rural villages abandoned by their original residents who have left in search for a better life in the city. This has allowed for an interesting movement of reverse migration, where young people, disillusioned with the capitalism of large cities, illegally re-occupy empty houses in the country-side.

Ocupa en Barcelona

*Call for organised squatting
Barcelona, Spain*

While Mr. and Mrs. Martinez spend six months relaxing in their second residence in Bali, their roomy 300m² house on Avenida Pedralbes is left empty, shutters closed[].

A group of students, bored of demonstrating about the Bolonia plan, manage to organise themselves and set up camp in their ginormous garden. They set up a big stage for improvised concerts and theatre performances, in the kitchen they now have an art studio and in the living room, a huge projector to show locally made alternative films. If you want to join in, it's all free and everyone is welcome. Decisions are made by popular vote. Does anyone know the WiFi password?

The good thing about reality is that sometimes, it's stranger than fiction, say René, Marta, Ayesha & Aleix.

Call your friends, 'okupy' your nearest mansion.

Le Cool – online magazine, #270 Winter 2009, received via email November 2009.

Land owners and illegal occupants

While some people may occupy a building out of ideological conviction and others settle illegally on a vacant piece of land for lack of alternatives, one issue common to squatters is the question of land ownership. Who owns the rights to a piece of ground?

In some countries the act of squatting is regarded as

a crime, while in others it is seen merely as a dispute between two people, owner and occupant. Traditionally, property laws and the state have favoured the property owner. However, squatters are sometimes able to claim rights over the spaces they have squatted by virtue of occupation, rather than ownership. In Turkey, for example, laws have been changed to legitimise the status of squatters under certain circumstances (Reeve, 2004). In cases such as these, squatting is similar to adverse possession, by which the possessor of real property without title may eventually gain legal possession of the property.

If squatters neither own, rent, nor have formal permission to use the land they occupy, eviction remains a constant threat. The lack of security of tenure is problematic, because it discourages investment in and improvement of the settlement. Without a sense of ownership by residents and local municipalities, informal settlements often remain in a state of makeshift impermanence.

Attitudes and perceptions

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Conflict arises not only between official land owners and the illegal occupants of their property, but also between residents of established neighbourhoods and squatters.

The divide between rich and poor in close proximity may lead to increased levels of crime. Negligence or refusal by local governments to provide basic services to squatter communities means that overflowing sewers, dumped waste and cracked or non-existent pavements are common in such settlements. They are the unpleasant reminders of poverty with which land-own-

ing neighbours would rather not be confronted. While legal subdivisions of plots of land limit the growth of formal neighbourhoods, the density of squatter settlements can increase unchecked. Considering these factors, it is not surprising that land owners, fearing for the value of their properties, regard squatters with suspicion (Barbour & Gillespie, 2007, pp 1-10).

Perceptions about informal settlements vary greatly, and it is telling that descriptions by the residents of such settlements are often markedly different from their dominant representation in the media. Depicted as 'the epitomes of urban chaos', squatter settlements are often seen as 'disorderly locales of deviant social groups' (Pile et al, 1999, p 85). Edward Said (quoted in Pile et al, 1999, p. 84-5) refers to a new 'urban Orientalism' - a tendency to 'exoticise the ghetto and its residents...to highlight the most extreme and unusual aspects of ghetto life as seen from the outside and above...from the standpoint of the dominant'.

"The existence of places of extreme wealth and affluence, and the ghetto and the shanty town represent the coming together of disparate groups of people, working to sometimes very different rhythms in segregated spaces within the city [...].

It is often the groups who live in closest proximity to the shanty towns who are most vocal in their denunciation of such places and the people who live within them."

(Pile et al, 1999, p 85-87)

In the past, informal settlements have not been registered on city maps, nor has anybody taken serious interest in their form, improvised production methods, or culture. To break the taboo of the emerging informal city is, for many in public administration, impossible after ignoring the situation for too long.

Within any settlement there are complex and intricate networks of relationships, with their own unwritten codes and rules. Informal settlements are by no means perfect environments, but they can exist as self-organised communities with well-developed networks of social and political organisations. In contrast to images of poverty, inactivity and disintegration, they can be places of vibrant energy, hard work, mutual trust and complex internal social affiliations - all of which contribute to survival amongst most unfavourable living conditions.

For this reason, informal settlements need to be understood 'as part of the total complex of human activities and enterprises, not as pathological departures from what is good and right' (Hughes, 1980, p 99). In addition, they should be looked at 'as orders of things where we can see the social processes going on, the same social processes that are to be found in the legitimated institutions'.



"Mumbai's middle class and wealthy - the true policy-makers in the city - have always had a schizophrenic relationship with the squatters. Publicly, they deplore the unhygienic conditions and the sprawl. Their conversation is full of the horrible crime and the amount of parental neglect in the squatter settlements. But many of them hire squatters as maids or cooks or drivers or watchmen, or even to care for their kids. They pay pitiful wages, thus perpetuating the need for squatter settlements..."

(Shadow Cities, p 129-130)

*Canal Walk
Slum in Mumbai, India
(Source: Newwirth, 2005)*

Dealing with informality: approaches and interventions

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"A major aspect of this help [for the improvement of informal settlements] was urban renewal, better housing laid down on an abstract pattern from the outside. Its relatively simplistic notion was that slums are bad housing. One may quibble about many of its manifestations. It was a bonanza for contractors. It was an architect's boondoggle. It was too expensive for the very poor. These are merely the surface issues, however, when viewed in the scale of the real cost of urban renewal: it represented yet another uprooting of communities whose roots were battered and undernourished."

(Polk, 1989)

'Slum eradication' in South Africa

Urbanisation has of course also taken place in South Africa. With the migration of workers from rural settlements to the cities across the country, informal communities have been established on undeveloped land in closer proximity to towns and cities. Like their global counterparts, these communities have remained marginalised and excluded from the benefits of urban life.

In recent years, the South African government has tried to respond to the issue of squatting by supporting a policy of 'eradication', demolishing existing shacks and replacing them with standard low-cost houses or, as in the City of Cape Town's N2 Gateway Project, with a variety of walk-up apartments. The focus of these improvement schemes has been the provision of state-built housing – rather than the facilitation of self-built housing with the provision of communal facilities. This approach is highly problematic, yet it is practiced by governments across the world (Polk, 1989).

Lessons from elsewhere

As long as the pressure to invade land is greater than the state's ability to provide sufficient decent housing, informal settlements will continue to grow. Clearly, a different approach to the improvement and integration of informal settlements is needed. If squatting is indeed a global occurrence – can we not learn from other countries who have dealt more successfully with similar situations?

The following two short case studies show how the issue of squatters has been addressed elsewhere. Projects in Brazil focus on the provision of communal facilities and the improvement of infrastructure – the issue of individual dwellings is left to the residents themselves. A Dutch project attempts to improve the existing layout of a dense networks of shacks through community participation.

Both projects offer valuable alternatives to our own South African attempts at 'shack eradication'.

Favela-Bairro

In Brazil, as in South Africa, informal settlements have been the object of various government plans, but these have often proposed unrealistic or inappropriate solutions for the reality of the shack dwellers. Until recently, public policies generally repressed favelas and commonly promoted the eviction of residents for relocation to new public housing projects on the outskirts of the city (Huchzermeyer, 2004). In Rio de Janeiro, however, politicians and institutions have begun to realise that the solution to illegal settlements cannot be reduced simply to repression and the massive production of public housing.

Favela-Bairro is a program for upgrading favelas, launched by the city of Rio de Janeiro in 1994. It is an innovative program which recognises the social, political and cultural importance of low-income popu-

*Great views, unlimited potential
Favela in Rio de Janeiro, Brazil
(Source: Brakarz, 2004)*



favela bairro project, brazil
similar conditions:
sloping site. squatters. limited space. great views.



lations living informally in the city.

One of the main characteristics of the program is that it considers favelas as part of the greater urban structure, therefore seeking the integration of these into the existing official city (Duarte and Magalhaes, 2006). While the upgrading of the physical infrastructure is the projects' main goal, the programs also respond to the communities' basic social needs through the implementation of complementary social projects.

Developments falling under the umbrella of Favela-Bairro take care of a variety of related projects: the quality of urban space is improved through infrastructure networks and basic public services such as piped water, electricity, and new spaces for communal use such as playgrounds and recreation areas. The program also promotes community development through educational and income-generating projects. At times, the project includes the construction of community buildings, such as sports halls or day-care centres. A limited number of residential dwellings are built only to accommodate

those whose dwellings were in areas of high risk.

Favela-Bairro encountered several complications, which are relevant to the South African context. For one, the projects were unable to control the growth of favelas. Critics also point out that low construction standards were encouraged by the city, which transferred the responsibility for house construction to the residents. Another not entirely positive outcome of the improvement was the gentrification of neighbourhoods: unable to afford increased rents, the poorest residents moved to cheaper favelas, further away from opportunities. Vacated properties were once again occupied by somewhat better off families.

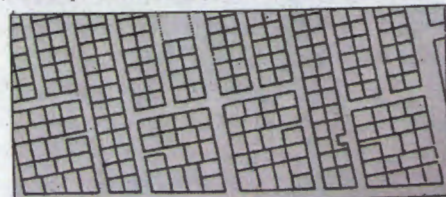
Overall, however, the projects of Favela-Bairro were considered successful because the quality of life of the majority of residents improved significantly. Infrastructure, accessibility, social facilities, housing conditions, public services, as well as employment opportunities and income-generating activities were all affected positively by the projects.



Adjustments with minimal changes to the existing structure



Redevelopment in which all parcels can be reached by vehicles



Re-allotment based upon an orthogonal grid

Diagrams of three development options for informal areas. (Source: Folkers, 2009)

The Experimental Project of Larlé-Extension

This pilot project of Larlé-Extension in Burkina Faso was financed by Dutch aid money. Its main aim was not the provision of communal facilities, as in the Favela-Bairro projects, but the improvement of the actual built fabric of the informal settlement. The following account of this project is based on a description in *Modern Architecture in Africa* (Folkers, 2009).

The project in Larlé-Extension was experimental because it was based on a Dutch method of using public participation to rationalise the irregular layout of allotments into a new plan. During discussions boundary markings are placed. The residents are then given a limited time to remove their houses from outside the

boundaries and rebuild them within the new borders.

In Larlé-Extension, a small area was selected as experimental terrain.

The project first focused on the allotments, which were reorganised with the involvement of the residents. The design for the areas that were reorganised was based on the existing situation. This situation was carefully studied by means of field recordings and interviews, and by projecting the planned urban fabric onto aerial photos.

The parcel variations presented to the residents were as follows:

(1) The urban fabric would remain in principle untouched, main streets would be broadened and additional spaces allocated for public use. The irregular fabric and the difference in surfaces of the parcels would be retained. In this way, most of the existing dwellings would be saved.

(2) All parcels would be given access to roads that could be used by motor vehicles. The new roads would

partially cut into the existing fabric, but would leave the irregular forms of the remaining parcels unchanged. In this option, almost half of the buildings would need to be rebuilt.

(3) A completely new grid of plot layouts would be superimposed on the entire area. This would create uniform plots, all with access to the road system. In this option, more than two thirds of existing dwellings would have to be demolished.

The majority of residents were in favour of the third model, perhaps because it guaranteed a more equitable division of land, and because it responded most closely to the layout of the next biggest city, Ouagadougou, and hence corresponded with the inhabitants' ideas of modernity.

A similar method of increasing access to dwellings might be successful in informal settlements such as Imizamo Yethu, where the high density of the built fabric is especially problematic during natural disasters such as fires.

Part II

THE CASE OF IMIZAMO YETHU

Local implications: An informal settlement in Hout Bay

*Our efforts
Imizamo Yehu, Hout Bay*









Left:
Contrasting neighbourhoods
A great sense of place prevails in the informal settlement
which overlooks low-density developments on the other
side of the valley

Below:
Something has been lost
New houses in Imizamo Yethu, Hout Bay



A brief overview: Hout Bay

Hout Bay is situated on the western coast of the Cape Peninsula, about 40 minutes by car from inner city Cape Town. Originally a fishing and farming community, Hout Bay retains its rural wooded character despite the fact that vast areas of the valley are now used for residential development. The scenic Hout Bay Main

Road runs parallel to the Disa River and is the main thoroughfare through the valley.

Hout Bay is home to three broad communities, segregated by race and income: Hangberg, a settlement above the harbour, is home to coloured people who traditionally worked in the fishing industry. The white population of Hout Bay are generally land owners and commute to work outside of Hout Bay. They occupy the largest area of the valley, where the original farms used to be, living either on suburban-type privately-owned plots or in gated estates.

Imizamo Yethu, located on the slopes of Skoorsteenkop Mountain, consists mainly of Xhosa-speaking people from the Eastern Cape and foreign African immigrants, many of which live in informally and illegally constructed shacks. While recent official statistics are unavailable and estimates vary, Imizamo Yethu has by far the highest density and is home to between 20 000 and 30 000 inhabitants – about half of the entire Hout Bay community.

Imizamo Yethu

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The scenic drive which leads into Hout Bay passes a large informal settlement, hidden from the road by a forest of tall pine trees. From the traffic circle next to the police station, a steep and recently tarred road leads into the settlement. The extent of Imizamo Yethu only becomes apparent as one enters it, yet its total area of approximately 48ha is small when compared to residential developments across the valley.

The settlement is located on the slopes of Skoorsteenkop Mountain. Slopes average around eight degrees. The altitude of the area ranges between approximately 20m asl. at the lower boundary along the road, to about 100m asl. at the upper boundary which borders the Table Mountain National Park (McDonald, 2007, p 4).

Imizamo Yethu is indeed located on what used to be Hout Bay's old forest station. Large parts of this particular area are still heavily wooded: stone pines, Monterey pines and sugar gums are the dominant species, successors of trees planted in forestry programmes first by the Dutch East India Company and later by the Divisional Council of the Cape (Aikman, 2007, p.3). However, natural vegetation in the built-up area (both formal and informal) is virtually non-existent.

It is difficult to find reliable and current demographic information about the residents of Imizamo Yethu (Aikman, 2007, p 15). The majority of people are Xhosa-speaking and from the Eastern Cape, though there are many immigrants from Angola, Mozambique, Congo DRC, Zimbabwe, Zambia, Swaziland and Namibia. As in other informal settlements, many people are unemployed. It appears that South African families primarily live in the lower parts of the settlement (some in houses), while shacks on the higher, less accessible slopes are occupied by men, often foreigners.

An aerial photograph of a city, likely Houston, Texas, showing a dense urban area. A yellow dashed line outlines a specific region in the upper right quadrant of the image, which is the focus of the text. The surrounding area shows a mix of residential and commercial buildings, roads, and green spaces.

+ 30 000 inhabitants

[total HoutBay: 60 000 people]

A central, triangularly shaped site houses some facilities for communal use: a hall, a soup kitchen, a library (flooded and unused), and medley of rooms used as offices and for storage. The places where people meet and exchange news, however, are shebeens, spaza shops, in a growing number of churches, at communal taps and on the street. Some crèches and day care centres are located higher up the mountain. Communal life is vibrant, but no places exist where one could sit in solitude to read a book, use the internet, or otherwise access information. There are also no play spaces for children, but soccer tournaments are popular on weekends. Playing fields are located next to the Disa River, a little further along Main Road.

Shacks and spaza shops fill the gaps between the new houses in Mandela Park, the formalised section of the township. Its low-cost, single-story houses are laid out in a somewhat abstract pattern, reminiscent of suburban developments.

The number of shack dwellings increases as the steep road twists its way up the mountain. Informal dwellings known as Dontse Yakhe are located on the steepest section of the site, densely built up against the slope of the mountain. Neither roads nor services exist in this part of the settlement, which offers precarious living conditions. This area is heavily criticised by surrounding neighbours for its pirating of electricity, high levels of crime and use of open land for ablutions (Aikman: 2007, p 10). Environmentally, the greatest problem is that contaminated storm water has caused the severe pollution of the Disa River (Day, 2008, p 11).

From this top end of the site, views stretch all the way across the valley. From here it is possible to see the entire settlement, including the old Forestry Station, its nursery and numerous staff houses, surrounded by a dense forest of tall trees. To the south lies the harbour; to the east new estates, developments and gated communities are clambering up the mountains on the other side of the valley.

Defining the limits: boundaries to neighbouring properties

A dense network of shacks has blurred the legally designated boundaries. As a result, the physical limits of Imizamo Yethu are clearly defined only in some places. While neighbouring property owners would like to see high fences around the settlement, residents argue for better integration between communities. What is needed is some kind of definition for the urban edge, rather than a one-sided barrier.

On the west the site is bordered by Main Road and buffered by a dense forest of pine trees. The fire break of the Cape Peninsula National Park is patrolled regularly to prevent the further growth of shacks on the eastern side; however, the original boundary of the designated residential area has long been crossed. To the north of the site (towards Constantia Nek) is Hughenden Estate, a low-density residential area with erven of size 4000m². Boundaries towards the beach and the harbour (to the south-west of the site) are formed by Penzance Estate, a mature low-density residential area of erven 900m², and a large plot of land belonging to the YMCA.

Of these boundaries, it is perhaps the one towards Hughenden Estate which deserves further mention. Physically, it is a concrete fence of about three metres height, the same palisade fence also separating townships from the N2 highway. Shacks are built right up against it, some using its structure for support. Residents clearly see the fence as a boundary: its other side serves as a dumping ground for refuse, discarded building material and sewerage.

However, the boundary extends beyond the concrete fence as adjacent neighbours have turned their backs to the settlement. The fortification of private properties is astounding, as these owners have resigned themselves to the fact that they cannot sell and leave (Chand Environmental Consulting, 2007, p 7). High incidences of crime have rendered their land worthless. The extremely-negative spatial quality of this boundary clearly highlights one of the main problems in Hout Bay: the lack of integration between communities, and the divide between rich and poor.

"Many ancient towns derive exceptional beauty from their enclosure by ramparts or walls. ... We have no occasion, and it would therefore be pure affectation, to seek to fortify our towns with walls, nor is it desirable that we should cause undue congestion; but it is most necessary in some way to define our town areas, and in the case of large towns to define and separate new areas and suburbs. ... Though we shall not copy the fortified wall of the old city, we may take from it a most pregnant suffusion of the value of defining and limiting towns, suburbs and new areas generally. This may be done in many ways."

Raimond Unwin, 'Town Planning in Practice' 1909
Zucchi, Cino. 'Enclaves: Cruising through the City of Minorities'
In Gust. The Urban Condition

*The sky is the limit
Skoorsteenkop Mountain overlooks the dense
network of shacks moving over its slopes*







HISTORICAL CONTEXT

Early history of Hout Bay

In Afrikaans, 'hout' means 'wood' or 'timber'. Much Hout Bay's history and character can indeed be linked to forestry and the supply of timber.

First mentioned in 1653 in van Riebeeck's diary as

"t'Houtbaaitjen", the area gained importance when the Dutch East India Company (VOC) began exploiting timber for use in the construction of inner city buildings. By 1710 much of the indigenous hardwood had been felled, and the VOC started planting oaks and other exotic trees such as stone pines to replenish their supplies (Aikman, 2007, p 3).

In 1682 two farms were granted to free burghers in Hout Bay: Kronendal on the eastern and Ruytelaars on the western side of the valley. The deeds of grant required that the settlers plant trees on the slopes, along roads and watercourses. As the settlement grew, agriculture in the fertile valley diversified and Hout Bay became an important area for the production of wine and fresh produce.

A gradual process of agricultural subdivision began in the nineteenth century, creating a series of smaller farms. Out of these, Oakhurst was the largest. Farming continued until a few years ago when the land was subdivided for residential purposes (de Boer et al, 2007).

Road construction in the Cape Colony and significance of the Forestry Station site

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The Hout Bay Forestry Station has been in existence for over eighty years and has played an important role in the development of Hout Bay and of the road systems of the South Peninsula. The Forestry Station has been the place of work for generations of people, many of which still live in Hout Bay.

A heritage study commissioned by the City of Cape Town explains the historical significance of the site now occupied by Imizamo Yethu (Aikman, 2007).

From the 1850s onwards, the Divisional Council of the Cape was the Colonial Government's main agency responsible for the development and maintenance of the Cape's growing road system. An important part of their road programme included the planting of trees to stabilise soil, beautify the environment, provide shade and act as windbreaks. Initially, trees were supplied by

government nurseries in the Company's Garden in Cape Town, but as the pace of road construction grew, the Divisional Council established its own nurseries.

In 1922, a portion of Oakhurst Farm was acquired for the establishment of a road station to maintain the newly built Chapman's Peak drive and to establish a nursery, which is still in use today. A number of structures were also built on the site, including offices, stores, greenhouses, and dwellings for staff. This portion of land was generally referred to as the Forestry Station, and it also played an important role in protecting the community from forest fires.

The forestry station is still in use today, though to a limited extent as the Newlands forestry station has become the main base for forestry activities. Current staff at the Hout Bay station have observed the growth of the informal settlement over the years, uneasily noting its expansion up the mountain and across the forestry site. Their future as workers at this station is threatened by future development plans.

The establishment of squatter settlements

When apartheid legislation came into effect in the 1950s, Hout Bay was zoned as a white residential suburb (Oelofse, 1994). Land above the harbour was allocated to coloured people, many of whom worked as labourers in the fishing industry. No land was allocated to provide accommodation for black people; they were expected to stay with their employers or live in townships elsewhere. This presented a problem for Africans, especially those working for the fisheries, as the time and expense of travelling severely impacted on their ability to work in the area. As a result, although not legally allowed to do so, early migrants starting living in makeshift camps out of site of formal Hout Bay residents. These earliest squatter settlements, constructed illegally in various locations on publically and privately owned land, were known as Disa River, Dawid's Kraal and Blue Valley.

In the 1970s and 1980s, the African population of Hout Bay grew considerably (Barbour and Gillespie, 2007). A number of factors contributed to this. As farms were subdivided into residential properties, the arrival of wealthier residents provided a source of employment for domestic workers in private homes. The growing fishing industry also made Hout Bay an increasingly attractive destination for work seekers. Due to lack of available housing, two new informal settlements were formed on the land of a sympathetic land owner. These were called Princess Bush and Sea Products.

Local government was slow to respond to the influx of people in Hout Bay, though formal residents expressed strong concern and wanted squatters to be relocated to land outside of the valley. Towards the end of the 1980s, squatters began to mobilise themselves. Using the shifting power relations of South Africa's transformation, they pressured the state to find land for them in Hout Bay (de Boer et al, 2008).

The establishment of Imizamo Yethu

Much social controversy surrounds all aspects of Imizamo Yethu, especially regarding the importance of the various elements affecting its historical development (Barbour and Gillespie, 2007). Reports on the origins of the settlement however, as well as its relationship to the greater Hout Bay community are relatively consistent.

In 1990 a massive fire broke out in the informal settlement of Princess Bush, leaving many shack dwellers homeless and finally forcing the government to respond to the issue of squatting in Hout Bay. After many negotiations between various stakeholders, land then occupied by the nursery of the Western Cape's Forestry Department was considered suitable for a new settlement – the main reason apparently being that the site was state-owned and could therefore be obtained relatively cheaply (Gawith, 1996).

In 1991, the site obtained was named Imizamo Yethu and approximately 1800 residents from Hout Bay's five informal settlements were resettled here. A total of 34ha were allocated for the settlement, out of

which 16ha were zoned non-residential, to be used for community facilities and amenities.

Some of the original residents of Imizamo Yethu soon received relatively secure tenure by obtaining simple brick houses on individually serviced sites (Barbour and Gillespie, 2007). Over the next ten years (from 1992 onwards), however, the township experienced a major arrival of new residents from the Eastern Cape. They erected shacks either in the backs of serviced sites or on unserviced plots on the mountain slopes (de Boer et al, 2008). Consequently, Imizamo Yethu took on the characteristics of a squatter settlement with shacks dominating the landscape.

The influx of people has to be seen against a greater context, and the sudden arrival of squatters in Hout Bay is by no means a unique case: globally, urbanisation has been the cause of a rapid increase in the numbers of urban poor (Newirth, 2005). Cape Town and other South African cities experienced an inflow of people from rural areas only with the abolition of Influx Control in 1986. Coupled with the fact that former homelands had been systematically underdeveloped, this caused a general trend of mass-urbanisation that had largely been held at bay apartheid legislation and law enforcement (Barbour, 2007).

Recent history and growth of the settlement

Appalled by the precarious living conditions in the settlement, Irish philanthropist Niall Mellon sponsored the building of 450 brick houses in 1993 (de Boer et al, 2008). While the houses have definitely improved living conditions for some of the residents, they offer little from an architectural point of view. Houses were laid out individually on an abstract pattern, typical of suburban developments.

In 2002, a census by the Development Action Group indicated that the total estimated population of Imizamo Yethu was in the region of 8 000 people (Barbour and Gillespie, 2007). In following years, however, the number of shack dwellers increased dramatically.

A large fire in the informal section of Imizamo Yethu in 2004 destroyed many shacks, displacing their residents. Fire victims attempting to erect new temporary structures on land designated for communal use were eventually resettled on the eastern slopes of the mountain.

Residents claim that during this time many more people arrived in Imizamo Yethu (de Boer et al, 2008). These people settled on the higher, steeper slopes of the mountain, transgressing not only the designated residential area, but also the boundary to the Table Mountain National Park. This area is called Dontse Yakhe (Xhosa, "have/pull your own").

During the last few years, various organisations have attempted to improve some of the conditions in Imizamo Yethu.

Problematic is the fact that no official spatial development plan for Hout Bay has been drawn up since the 1970s. Consequently, there have been no clear directions regarding development. The same is true for Imizamo Yethu. The current proposals which are being put forward for the settlement's improvement only focus on the development of three portions within the property, which the City of Cape Town has identified.

Plans for future development

Conflicting interests

A social impact assessment commissioned by the City of Cape Town explains why various interest groups support different options of development (Barbour and Gillespie, 2007).

The Hout Bay Ratepayers' Association (HBRA) represents the interest of the land-owners in the valley. Members of the association have been involved in the issues surrounding Imizamo Yethu since the late 1980s. They feel greatly disappointed about the way in which the City has repeatedly failed to act with regard to the squatters. However, they are supportive of development in the settlement and encourage the provision of schools, sporting facilities, commercial activities and a limited number of houses.

Sinethemba represents some of the original mem-

bers of the settlement who moved to Imizamo Yethu in 1993. They share the HBRA's concerns that the focus of the development should not be on housing but on communal facilities, as stipulated by original agreements. Sinthemba is also concerned about the unregulated influx of people into the settlement.

SANCO (South African National Civic Association, Imizamo Yethu) primarily promotes the integration of communities within Hout Bay. They are opposed to the perpetuation of buffer zones, boundary roads and fencing. Instead, they are supportive of better transport infrastructure, certain community facilities and the provision of housing in Dontse Yakhe. SANCO believes that schools and sports facilities should not be built within the settlement, but in another location to encourage interaction.

Political issues in the settlement are largely underpinned by land rights issues, and social controversy therefore surrounds all plans for future development. Due to the high density of the settlement, housing and facilities for communal use remain some of the main needs of the community.

Proposals for future development

To improve living conditions in Imizamo Yethu, the City of Cape Town has identified three sites within the settlement for development. A number of plans for the future development of these sites have been drawn up by various consultants and specialists.

Officially, development will only take place in the three designated areas. No proposals exist for dealing with the large number of squatters residing on land belonging to the National Park – however, there have been suggestions for moving squatting residents elsewhere (Barbour and Gillespie, 2007). This is one of the greatest shortcomings of the proposals, as they neglect to deal with the complexity of the entire situation.

The most recent development plan proposes a combination of residential and educational, business and forestry facilities. Detention ponds for storm water cleansing form part of the design, as the pollution of the Disa River remains a major problem.

Since development in the area is closely linked to political agendas, final outcomes remain susceptible to change.

Anchoring

A large, bold, black letter 'B' is centered on the page. The letter is rendered in a classic, slightly decorative serif font. A thin, light blue horizontal line runs across the page, passing through the middle of the letter 'B'.



The Casa de Retiro Espiritual is located about 40km southwest of Cordoba in the plains of Andalucía, Spain. By chance I came across the house in a magazine in my second year of studies, and it changed the way I thought about the making of buildings and their relationship to the landscape. Designed as a retreat by Emilio Ambasz, the architecture of the Casa de Retiro refers as much to the Modern as it does to traditional local ways of building, and it is a house which is firmly rooted to its site. Travelling through the south of Spain, and recognising the characteristic dry and rolling landscape, I started searching for the house I had seen in photos.

We found the House of Spiritual Retreat three days later. Its only two white walls opened towards the landscape like a book, offset by an emerald lake and undulations of olive groves. Like the dwellings we had passed in the cave town of Guadix, the house itself was dug into the ground to maintain a constant temperature even in the heat of summer.

61

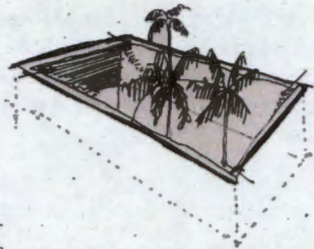
On an old forestry site on the slopes of Skoorsteenkop Mountain, a strong sense of site also prevails in the informal settlement of Imizamo Yethu. Despite the slope, the trees and the views, new houses constructed in Imizamo Yethu reflect what has been built elsewhere in low-cost developments. Concerns about the budget have shaped the design of these houses, rather than a response to the beauty - and problems - of a steeply sloping site.



San dwelling, Granada, Spain
with chimneys protruding



6059 Malapark.
(Adalberto Libera).
Italy
Mediterranean



Sacred lake at the
Temple of Beasies,
Egypt.



Sunka church in
Lalibela, Ethiopia.

"Of all meetings, how a building meets the earth is perhaps the most important and yet the one most commonly unconsidered."

(Day, 1990)

Introduction

This paper, as well as the name of the document, takes its name from a publication by architect Steven Holl. *Anchoring* refers to both the relationship between buildings and their sites, as well as to the way in which a building occupies its site.

The purpose of this document is to explore and understand an important, but often overlooked condition in the making of architecture: what happens at that

point where a building meets the ground and where a site becomes a building? What does it mean for a building to be rooted, grounded, bound, or as Steven Hall calls it, 'anchored' to site?

Some buildings have a strong connection to their site: dug into the ground, carved into rock, or hung from a cliff. These buildings are unimaginable without their sites. Some buildings are connected to their sites in a more gently way: an extended interior floor surface that becomes a porch, a seat that wraps around the house, or a series of stepping stones leading up to the front door. Some buildings, however, are place-less. They are the dwellings that make up the majority of security estates, and the low-income houses built to replace informal settlements.

Part I, *Meeting Ground*, is an exploration of the role of site in architecture. Part II is about *Thresholds*, those elements of architecture which link one space to another, binding them together.

Part I

MEETING GROUND

On the relationship between buildings and their sites

The notion of site in architecture

66

"Sites contain in their profundity a sense of the project, to which the architecture must conform."

Sverre Fehn

'Site' refers to the local position of a building, town, monument or similar work; it may also signify a space of ground occupied by a building; more generally, it describes the place or scene of something (quoted in Burns, 1991).

In a built, material world, it is both necessary and inevitable to relate a building to a physical location. Architecture is bound to situation. In the other arts, place is negotiable. But unlike music, sculpture, literature, film and painting, our understanding of a building is always closely linked to site (Holl, 1989).

What constitutes a site in architecture? How is it constructed? How can it inform building and architecture?

Theorist Carol Burns argues that architecture is not constituted of either buildings or sites, but arises from the studied relationship between the two, and from an awareness that site is received as an architectural construct, even if unconsciously (Burns, 1991).

On Site: Architectural Preoccupations deals specifically with the question of site in architecture. It is argued that every site is a unique intersection of land, climate, production, as well as a variety of other factors. Every site is already constructed by its specific circumstances. Adding a new building to a site therefore transforms its use as well as its topography, microclimate and circulation.

Norwegian architect Sverre Fehn speaks about the 'invention of site'. Similarly, Burns states that a site, like architecture, can be created, moulded, transformed. From the architect, site requires a response, an interpretation. Rather than attempting to maintain a neutral stance, the architect must take responsibility for the site and assume its control for a limited passage of time (Burns, 1991).

Burns further argues that 'the worst enemy of architecture is the idea of space considered solely in terms of its economic and technical exigencies indifferent to the idea of site'. The modernist program, in conjunction

with the developing economy, was motivated by the possibilities of mass production and standardisation. This led to homogeneity, neglecting and even opposing the specificity of a given place. Burns ascribes the fact that the site is once again seen as a shaping force in architecture to a mainstream reaction against Modern architecture.

Burns suggests a two-fold consideration of site, emphasising both thought and action. Firstly, in terms of what we think a site is, and secondly, in terms of how this thinking about a site informs constructions:

"The site can be described formally. Critical analysis defines how and according to what methods the site was produced; including the crucial junctures of land use determination. The real site must be analysed, in other words, one must look at the people using the site, who perhaps are opposed to its physical form and purpose."

How can site be used to inform building and architecture? According to Burns, the two considerations of

a site are closely linked to the opposing conceptions of the cleared and the constructed site. A site, as a result of human action, is always already physically and conceptually shaped prior to building architecture.

The idea of the cleared site is an attitude prevailing most strongly over undeveloped land, which is perceived to be pure, neutral and empty of architectural content. Natural constructions, such as vegetation, animal movement and drainage patterns, are seldom considered in architecture.

The technique of the cleared site depends on an abstraction of the ground plane using a map and a plan. By placing a grid over a site, real differences are masked by geometry, and relationships to existing conditions are denied. The concept of the cleared site also presumes that the land of the site is independent of political motive, non-ideological, and unengaged with issues of power. In reality, of course, the received site is never cleared nor empty.

The constructed site, on the other hand, emphasises the existing conditions of land and architecture. In recognising that natural and human forces have shaped the land, this approach acknowledges that any situation available for building has somehow already been physically constructed by these agencies. The method of the constructed site identifies particular visible phenomena which are then used as a generative concept for design. Again, this method is not entirely unproblematic as it only deals with what is visible – what is not immediately present is not addressed.

According to Carol Burns, the site in architecture is a result of human action and for this reason always conceptually and physically construed prior to building architecture. A complete assessment of site should therefore be a combination of these concepts and exist at several levels.

An understanding of a site in its totality is necessary if the link between a building and its site is to be more than purely functional.

Designing with site in mind

The site of a building is more than a mere ingredient in its conception. It is the determining factor in our experience of a place. Building and site are interdependent. Though most buildings are informed at least to some extent by their context, not every architect consciously responds to site.

Some architects deliberately use the unique qualities of a site to shape their design.

This section briefly explores the work of architects who do respond to site in a conscious way and who consider it a shaping force of their work. What is of interest here is the thinking about the design that has preceded the built product, as well as the architects' attitude towards the making of site. Steven Holl, Sverre Fehn, Emilio Ambasz and Glenn Murcutt are the focus of this section.

The writings of Steven Holl are preoccupied with the anchoring of buildings in their sites. What exactly

does Holl mean when he speaks of 'anchoring'? The maritime metaphor calls to mind boats and ships safely secured in position. Similar conditions of safety, belonging and attachment to a specific place are implied when it is said that architecture is bound, grounded or rooted. In *Anchoring*, Holl writes that 'the site of a building is its physical and metaphysical foundation'. A building does not intrude on its landscape – rather, it serves to explain, to 'illuminate' it.

Where a building and a site meet, a special condition comes into existence. Holl argues that 'building transcends physical and functional requirements by fusing with a place, by gathering the meaning of a situation'. When a work of architecture successfully fuses a building and situation, a third condition emerges. In this third entity, 'denotation and connotation merge; expression is linked to idea which is joined to site'.

In the past, this connection was manifest without conscious intention through the use of local materials and craft, and by an association of the landscape with

events of history and myth. Today the link between site and architecture must be found in new ways.

Sverre Fehn refers to building as the 'intersection in the dramatic confrontation between earth and sky'. Unlike Holl, for whom the act of building serves as an explanation and illumination of the site, Fehn calls the act of building 'brutal' (Ewing, 2003).

"When I build on a site in nature that is totally unspoiled, it is a fight, an attack by our culture on nature. In this confrontation I strive to make a building in the setting, a hope for the new consciousness to see the beauty there as well."

In keeping with the myth of the untouched site, Fehn to a certain extent invents the site as untouched in order to enhance this confrontation. For Fehn, site plays an integral part in the development of the architectural design. 'Sites contain in their profundity the sense of the project, to which the architecture must conform'.

The buildings of Emilio Ambasz are cut into the earth. The landscape is shaped and moulded, and it is

transformed as another aspect of the building. Terraced earth berms insulate and shelter underground spaces. Roofs are frequently covered by vegetation, extending the existing ground plane. Ambasz views the site as an object, essentially a 'cleared' space, which can be enhanced through architectural intervention. In Ambasz' work, the site becomes the building and the building forms an intrinsic part of the site.

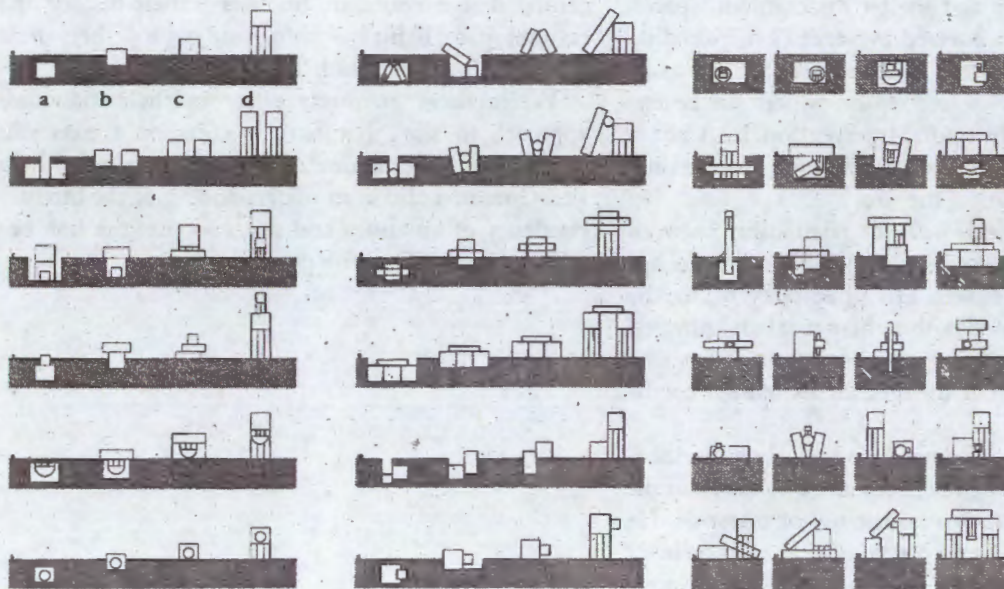
Glenn Murcutt deals with the relationship between building and site in a manner very different to the approach taken by Ambasz. His philosophy of 'touching the earth lightly' is both a theoretical and physical framework to design. He is an environmentalist who draws inspiration from the land in its natural condition.

Murcutt's method is determined largely by an ideological commitment to the minimal exploitation of the site and maximum return on the use of materials. He produces an architecture 'conscious of its responsibility to minimise the inevitable disruption of human pres-

ence on the land' (Beck and Cooper, 2002). For Murcutt, "the central design issues are humans – their history and culture; space; light; how things are put together; and a responsibility to the land." (Glenn Murcutt, 2002)

While these architects differ in their individual approach to 'site', they have in common a conscious awareness of the unique opportunities provided by a site. Common also is an understanding of the interdependency of buildings and site, and that the link between them is filled with possibility.

Relationships between buildings and their sites



Left: Correlational charts

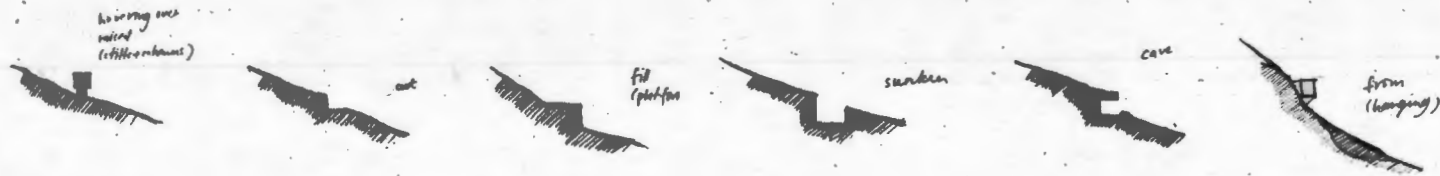
A table of links and correlations beginning with the four conditions of architecture. Under, in, on and over the ground.

(Diagrams by Steven Holl)

Right: Six strategies for building on sloping ground.

Diagrams based on correlational charts by Steven Holl. Over, cut into, filled (platformed), sunken, caved and hanging from the site.

BUILDING ON SLOPING GROUND
6 strategies



Adapted from Steven Holl's drawings of buildings and their relationships to the ground, the sketches above show my own six strategies for building on sloping ground.

On stilts of columns, buildings can hover over the ground. On very steep sites where there is a vertical rock face, buildings can be hung from the ground.

The earth can be cut to accommodate a building, or filled to provide a level platform on which to build.

Variations of these two strategies are buildings which are dug into the ground: the sunken building, where the ground becomes an element of enclosure, and similarly, the cave building.

In contrast to flat sites, very steep sites often require a very conscious attitude towards shaping them. At times, this can result in extraordinary buildings because the buildings have been consciously linked to their immediate physical environment.

Part II

THRESHOLDS

The spaces in between

Summer in Barcelona. It is too hot. There is the Macba: the façade of Richard Meier's art gallery reflects the bright Spanish light and I have to squint to see. Cars are hooting. Tourists are shouting. I smell cigarette fumes and coffee from the bakery across the road. A skater scrapes along the ledge of the large flowerpot next to me. I turn my eyes to the Capella del Fad. An old stone chapel, in the centre of the city. *Musica* says the poster on the wall.

The timber creaks as I push my way through the gap, and the door closes. Inside. The floor feels cool underneath my feet. Smooth grey marble interlaid with patterns in a lighter colour. Deep niches in the old stone walls promise thickness and solidity. (Even the air smells like stone.)

My eyes adjust to the spacious interior of the chapel. A beam of light enters surreptitiously through a window high at the back, but it is enough to illuminate forty speakers mounted on pedestals at face-height (cables tucked under the floor), and two wooden benches. I sit down in silence, and nothing disturbs me. Softly, the speaker to my left plays a soprano. One by one each of the speakers becomes a voice, each one its own, alto, tenor, baritone, bass, until they all are chanting, body-less. I pray, I sit, I think, I listen, I leave.

Many times I return to this simple installation to be sheltered within the cool stone walls of an old chapel.

I am in Imizamo Yethu. It is a hot day. I have a small shack of my own; it is cheap to rent. Metal sheeting heats up quickly, and I want a quiet cool spot to read. Most people are out, working or looking for work, kids are at school – but there's no escape from the neighbour's radio. I could go to a shebeen (empty at this time of day), but they're dimly lit with few windows and I don't like being stared at. And I want to have a view when I look up from my book. I could sit on the steps of the community centre, but they're not sheltered from the sun.

... Let us for a moment imagine a public space beautifully articulated with a single seat meaningfully situated under a tree. The sun is relentless. I am very tired and very surprised to encounter a place so well accommodated to my inclination and so apparently beautiful too ...

(Aldo van Eyck, *Team 10 Primer*, p. 36)

(There is no such public space in Imizamo Yethu).

So I walk up the mountain past some new houses, along the curvy part of the road. Then I step onto a well-worn footpath which leads to the shacks higher up. (This is Dontse Yakhe.) There are tall trees further up; Eucalyptus trees which sway in the wind and which whistle when there is a storm. I find a large flat rock in the shade and start reading ...

What are thresholds?

"The threshold is a very potential space. It is the place of suggestion, where things happen only in a half way. The place where the moral and the amoral, the legal and the illegal, the truth and the lie cannot be sorted out. The place where everything is possible, just for a moment, before you pass through it."

(Susanna Cros, in *Metapolis Dictionary of Architecture*, p 632)

A threshold is an intermediary space. Literally, a threshold is a doorstep; it is the ground at the bottom of a doorway; it is the entrance to a house or a room. More generally, the term implies an interval beyond which a new situation begins. A threshold is a boundary, but rather than constructed, it is insinuated.

Thresholds make the connection between two places more apparent. They provide overlap, extending existing boundaries. Conversely, the threshold offers potential for integration and dialogue between unconnected places. It is an ambiguous space because it bridges two separate realms, taking on the characteristics of each, yet belonging to neither. It is a place that is not prescriptive, but one which allows multiple uses and interpretations.

Thresholds are the spaces in between. Thresholds are variably referred to as interstitial, transitional or in-between spaces (Thwaites, 1992; Day, 1990; Plummer, 1993). In its simplest form, a threshold can be a line on the ground. It can also be a wide landing at the top of some stairs, a bay window with views to the mountains – or an airport terminal. It is a space which is traversed on the way to

a destination – yet it is not a destination in itself, but a place in which to linger and from which to observe.

Thresholds are spaces of transition, and they are important because they encourage dialogue and reciprocity between other spaces. This is done in three ways.

The passage from inside to outside involves changes of environmental conditions. Through overlap, their differences are softened. Thresholds form a zone ambiguous enough for sensual dualities to occur, thus offering a simultaneous experience of two sometimes very different conditions. Light and shadow, loud and quiet, windy and still, active and passive, hot and cold, public and private, collective and individual often co-exist in threshold spaces. Overlapping these experiences produces an ambiguous zone without exclusive predominance by either condition. What results is an interspace with qualities unlike either side, although it is composed of their elements.

A second means of integration is spatial. Seats and other thresholds offer a deliberate physical invitation

to pause and briefly settle, eliciting a sense of belonging to the building. Since it is often not clear where outside ends and inside begins, thresholds become intermediary zones which encourage exchange and meeting. The simultaneity of belonging to both individual/collective and public/private domains underlies the timeless attraction of the stoep or veranda. Stoeps are intimate places that are also out-of-doors and part of the public street. At the edge of the action, they allow the user to observe the action of the street, without becoming part of it.

Since thresholds belong to both worlds, they also grant those undergoing the passage time and space to contemplate the processes of withdrawal and familiarisation. As points of arrival and departure, they become associated with important ritual functions and occasions. In vernacular buildings in particular, entrances are closely linked to cultural rituals (Danby, 1993).

An exploration of thresholds in physical form

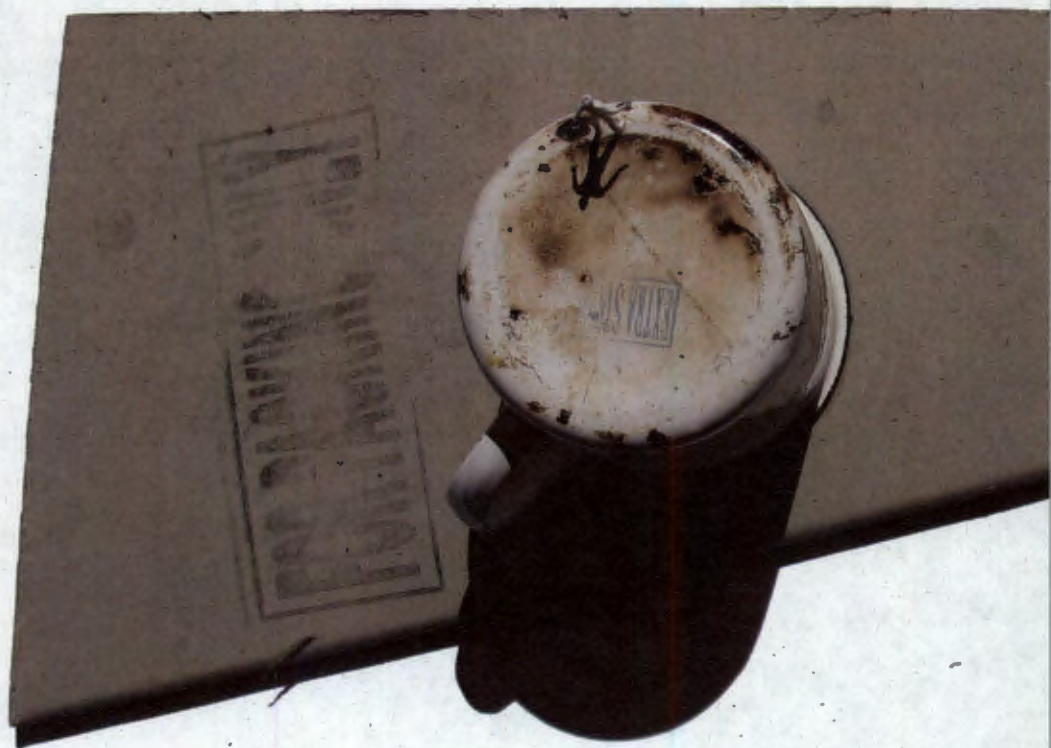
Small models of natural and found materials explore the idea of the threshold in architecture. Each model can be read as a different landscape, traversed by the user on his way to a destination. Natural markings on the wood represent physical and ephemeral crossing points.



Anchoring









Anchoring



The role of thresholds

88

→ inside/outside
public/private
noisy/quiet...

simultaneous experience
of both worlds

a)



overlap of spaces
+ spatial qualities
(ambiguous zone,
sensual dualities)

diffusion of edge
extension of exterior
[shaded rectangle] of 2
different worlds

b)



spatial extension
(outdoor room)
→ belonging

provides time for
reflection and
contemplation

c)



transition

"Then, with a conscious step, one passes into another place, a place to stop. A place that is calm, protected enclosing."

(Christopher Day, Places of the Soul, 1990)

Thresholds fulfil a number of important functions. Thresholds play a significant role on an urban scale, as their enclosure embodies a sense of generosity, or reciprocity. Thresholds also contribute to our psychological well-being by easing the transition between these different realms, by providing space in which to contemplate and reflect, and by integrating individual and collective domains. Lastly, they link the transition between the different realms of inside and outside, public and private.

Reciprocity and generosity

When a design goes beyond its immediate functional requirements, it can accommodate unexpected demands with ease. Henry Plummer (1993) refers to this as the principle of reciprocity: this is a case of the building giving back to its surroundings. This is only possible if the building is in dialogue with its surroundings. For this reason, the walls and roofs of a building should be formed to exploit their capacity as interfaces between our two worlds of belonging.

Building enclosure has the possibility to be of a dual nature, simultaneously integrating and dividing. It can act as a limit that separates and indicates the distance between two spaces. It can also be the very element which links the two different worlds of inside and out-

side. Building enclosure is a dualistic membrane, fulfilling sometimes paradoxical functions.

Public spaces also act as thresholds by extending limited inside space. They are the spaces in which people experience the city and engage in its collective life, and they are the primary elements affecting the quality of urban living (Dewar & Uytendogaardt, 1995, p. 10).

Especially when people are poor, a significant part of their lives is played out in public spaces because individual dwellings cannot accommodate the full range of a household's needs.

Public spaces are also often the spaces which are most easily accessible. To a visitor, they provide a base from which to explore and to which to return. In this sense, public spaces in general become thresholds: places in which to spend some time, before moving onwards.

"Our ancestors knew well that the places we pass through affect our inner state of being. Typically a church was not entered directly from the busy street but after a series of threshold experiences to support the necessary inner preparation."

(Day, 1190)

Effect on human happiness

Christopher Day and other contemporary theorists have provided a foundation of literature supporting the psychological significance of the built environment in the development of psychological wellness.

Since thresholds are often found at edge conditions, bridging across boundaries, they become the places sub-consciously associated with important rituals of arrival and departure. These daily rituals, of consciously entering and leaving, repeated many times, can have healing

effect (Dey, 1990, p. 148). As in-between spaces, thresholds further allow acclimatisation to the new environment.

Well-designed spaces are also able to provide relief from overstimulation and mental fatigue. This is referred to as the restorative benefit of spaces (Kaplan et al, 1998). Threshold spaces may often fulfil the role of these places. The work of Kaplan conceptualises four characteristics of settings with restorative capabilities. These he lists as being away, extent, fascination and compatibility.

Being away is defined as a characteristic which allows the mind to wander and the users to imagine themselves in another, different location to the one causing the fatigue.

Extent refers to the opportunity to contemplate and consider breadth of scope and possibility. Relatively small places, where boundaries are not easily discernible, may offer such potential.

By *fascination* Kaplan refers to the properties of places or objects that engage and hold the attention by

simulating a sensation of wandering and mental challenge. The view of tree or a field of grass, or an opportunity to observe the surrounding action can offer this kind of escape.

The last characteristic, *compatibility*, refers to the need of a setting to be compatible with our expectations of a place.

Another factor important to human emotional well-being is *sense of place* (Dewar and Uytendogaardt, 1995). Sense of place consists of an awareness of one's surroundings, being able to locate oneself within them, and having a sense of belonging. Kaplan (1998) writes that sense of place is associated with our ability to subliminally monitor our position in relation to a kind of balanced tension between awareness of here and there. He refers to the sense of place primarily in terms of our reaction to the position of our body in the environment, stimulated by sensations of enclosure. This includes an awareness of when we are outside it, when we are entering it, and when we are in the middle of it.

Varying degrees of privacy: A case study of thresholds in Lamu

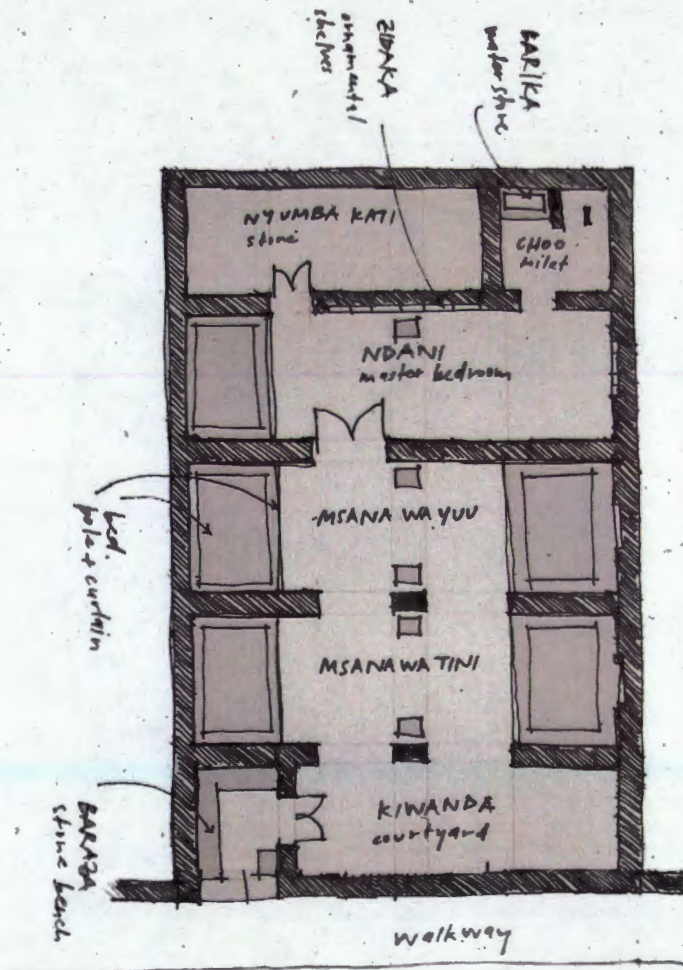
One year ago I travelled through the east of Africa, mostly along the Swahili coast. Heavily influenced by Arab traders in the fifteenth century, the coastline still retains its oriental character.

In Lamu, an island off Kenya's coast, traditional houses are built of coral and laid out according to principles which ensure maximum privacy of the family and home. This is typical of the buildings in many Arabic countries, where adherence to Islamic culture prescribes a clear division of spaces into varying degrees of privacy.

The varying degrees of privacy can be classified into the four categories of public, semi-public, semi-private and private spaces. Public spaces are those which are accessible to the general public, unconditionally, day and night. In Lamu, they would include streets, squares, the beach and its promenade, as well as most other outdoor

spaces. Semi-public spaces are also accessible to all, but they offer an environment which is slightly more controlled than that of purely public places. While the user is free to act in any way, his actions are observed and noted by others. Markets, the town hall and its library, the clinic and most shops fall into this category. Semi-private spaces are accessible to outsiders, but only with express permission of the owner. These spaces include fishing boats, internal courtyards and sometimes verandas. Semi-public and semi-private spaces are the links between the public and the private realm. The accessibility of the individual house is limited to close friends and family. A variety of threshold spaces negotiate the passage from public to private realms in Lamu.

The idea of thresholds is closely linked to an intangible process of transition; to the passage from one space into another (Plummer, 1993). The state of transition is not always apparent, as passing between realms can be experienced almost as subconsciously as the nature of our environment changes around us. A threshold is also that

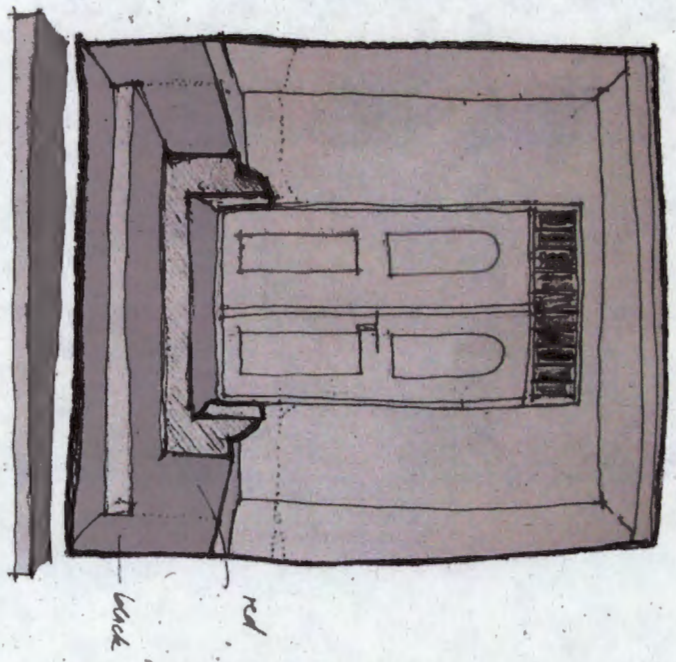
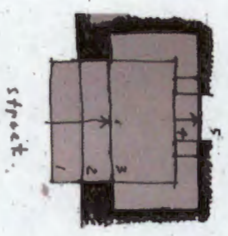


External coral walls, high ceilings and small windows shield Lamu's inhabitants from the sun, while respecting the much-valued privacy of a conservative society.

The inward-looking courtyard plan is the most common arrangement used to achieve the amount of privacy needed.



A series of changes in level, colour and light intensity mark the progression from outside to inside in a typical dacha.



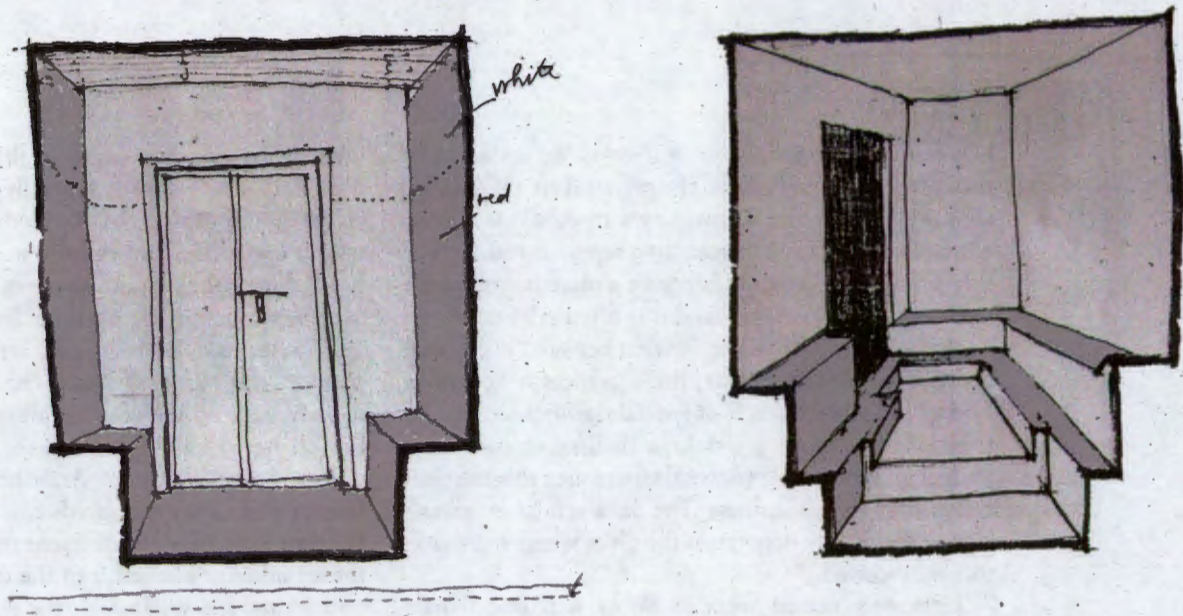
element of architecture which divides the inside from the outside, the public from the private. It is a boundary, a borderline, an edge. Conversely, a threshold is also an entrance, a gateway between two separate realms. For this reason, the threshold becomes a place imbued with meaning and importance, and it is often celebrated.

As the most immediate division between inside and outside, public and private, the entrance to houses in Lamu's old stone town is of special significance. At the front of each house is a *daka*, a shallow veranda with built-in stone benches (*baraza*) where men meet to chat or are engaged in business. The *daka* acts as an extension of the private home; it is the place where male visitors are received.

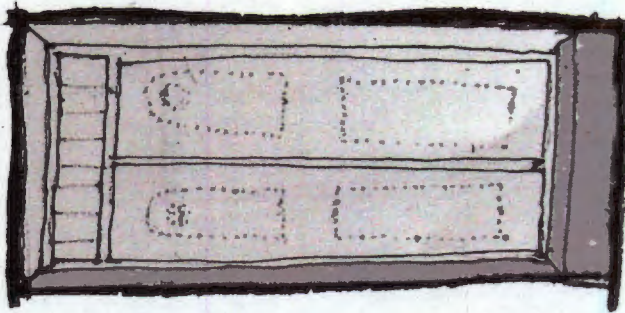
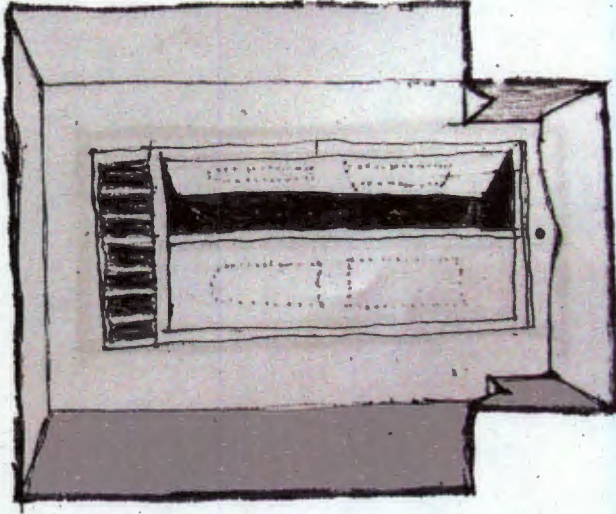
Intricately carved wooden doors welcome female visitors and the family from the *daka* into an open courtyard. Traditionally, the courtyard is a space for the women and children of the home; outside yet sheltered from the sun and the public eye. Beyond the courtyard is the house, which consists of a series of long but narrow

inner galleries, culminating in the most private space, the *ndani*. The *ndani* is typically used by the women of the house during the day and by the husband and wife at night. Men typically do not spend much time at home during the day, and so the other rooms are equally used by women in the daytime. In some places, adjoining houses have been bridged across the street with a passage. This passage permits the women of the house to move unseen between buildings, and creates a narrow, sheltered thoroughfare in the street below.

The typical layout of Arab houses in Lamu illustrates clearly how thresholds can be used to negotiate the transition between different realms. The richness of these buildings is a result of the experiential quality of transitional spaces. Though the design of these houses has been governed by the religion and culture of a traditionally conservative society, the resulting spaces contribute to the urban fabric as well as to the individual dwelling.



A variation of entrance dakas in Lamu. Stone steps provide seating for visitors and passers-by, blurring the boundary between public and private realms.



Typological study of thresholds

While I have used the term 'threshold' as an all-encompassing term to include all kinds of transitional spaces, this visual study of thresholds follows the classification of theorist Kevin Thwaites. Thwaites groups these spaces into the four categories of thresholds, segments, corridors and tunnels, and ephemeral spaces (Thwaites, 1992). Most threshold spaces, as I have defined them, consist of a combination of each of these categories.

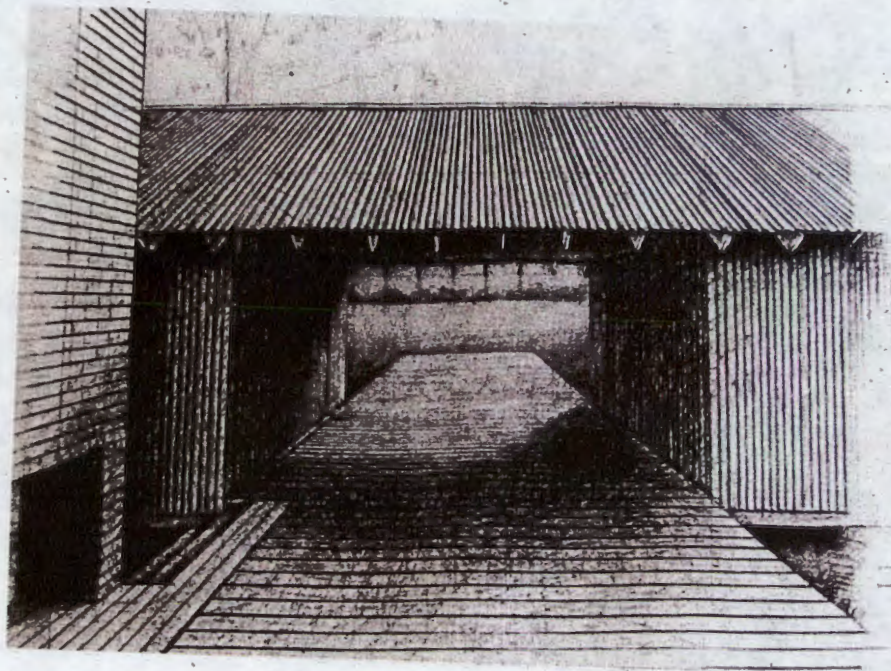
Thresholds are boundaries between spaces, marked by changes in material, texture, colour, form and shape, direction or level.

Segments are spaces which break linearity and provide softness through porticos, arcades, colonnades, shelters, low fencing, stoeps, porches and landings.

Corridors and tunnels are narrow routes between buildings, enabling access to interior courtyards and to neighbouring spaces.

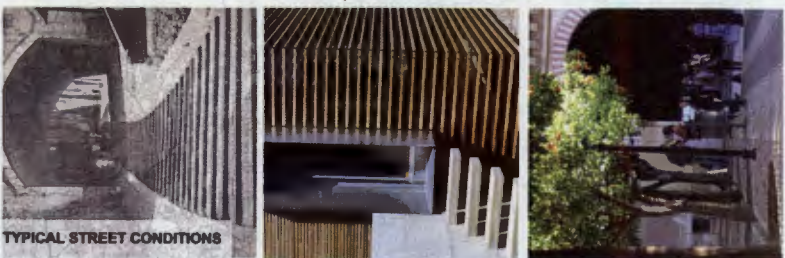
Spatial transition can also be indicated by the *ephemeral* qualities of dappled light and shade patterns, seasonal change in vegetation, sounds and smells.





The overlapping qualities of thresholds permit a person to stand outside on inside ground. When we stand on a landing, we are supported by a piece of interior flooring projecting into exterior space. The landing allows the simultaneous experience of two worlds. It is infused with exteriority by sunlight, atmosphere, wind, sound and rain, but it remains connected to the interior.

(Source of image: unknown)



TYPICAL STREET CONDITIONS

Principles and practical applications



"What is a door? A flat surface with hinges and a lock constituting a hard terrifying border line? When you pass through a door like that are you not divided? Split into two - perhaps you no longer notice! Just think of it: a rectangle. What hair-raising poverty. Is that the reality of a door?"

(Aldo van Eyck, 'Osterlo Meeting, Team 10 Primer, p 41)

Thresholds form the links between different spatial experiences. They are the connecting elements between sometimes very different worlds such as inside/outside, public/private, communal/individual, light/dark. Thresholds soften the boundaries between these worlds, making the transition from one space to the next them more gradual. As the preceding images have shown, this can be done in many ways.

Thresholds also offer time for contemplation and reflection. They blur the boundaries between public and private spaces through varying degrees of accessibility and visibility. Their dual nature makes them ideal meeting spaces.

The study of the daka in Lamu shows how simple

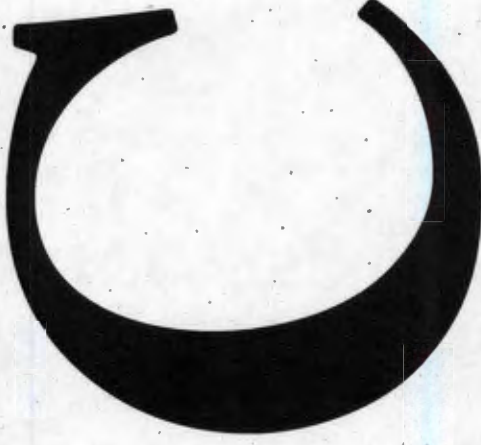
spaces can be used to connect the inside to the outside, while subtly dividing the public from the private. The set of spaces created by varying degrees of privacy is very different to the spaces found in the newly developed houses of Imizamo Yethu.

Thresholds positively influence human well-being. Well-designed, they are able to offer relief from overstimulation and mental fatigue. They ease the transition from one space to another, and they contribute to a feeling of sense of place by offering enclosure and varying degrees of privacy.

In an urban environment, especially a densely populated one, a variation in the types of accessibility of spaces is needed. Threshold spaces can be used to distinguish the public from the private realms, simultaneously providing people with much-needed places of retreat and relief.

My design intervention in Imizamo Yethu will put some of the ideas and principles learnt through the study of thresholds to the test.

Intervening



Introduction

I started this research with an interest in a very specific site. Site led to issue and issue led to programme.

Imizamo Yethu is a settlement located on an old forestry site in Hout Bay. It is densely populated: about 30 000 people have made their homes on the slopes of Skoorsteenkop Mountain. An average of 700 people occupy each ha of land in the densest areas high up on the mountain.

Beautiful views, tall trees, a steep slope and a great sense of community attracted me to the site. The population has grown rapidly in the last few years. The chaos

following shack fires has prompted an influx of new people.

Consequently, the settlement is densely populated, few facilities exist for the people as a community. While people meet in shebeens, at the hairdressers and public life is played out on the street, very few formal gathering places exist.

My interest has always been in the spaces in between: between public and private, inside and outside. Especially in the informal areas, the variety of spatial experience is limited to the spaces of street and home, providing little opportunity for varying degrees of privacy. And so this design introduces transitional spaces, places to rest and reflect. The study of thresholds and the traditional Arab house in Lamu has shown how different the transition between inside and outside, public and private can be made through simple architectural principles. The design of a small portion of the settlement will use many of the lessons learnt to negotiate between the public and the private realms.

Anchoring

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Part I

ISSUE



Lessons learnt through research

This section is the synthesis and implementation of the research I have undertaken on threshold spaces and anchoring. By threshold spaces I mean in-between/meeting spaces and the critical role they have to play in creating a network of public space that allows for change, difference. By anchoring I imply how buildings meet the ground and how these create opportunities for the layering of space. This study into these two conditions is driven by a deep personal interest in Imizamo Yethu. Site led to issue and issue led to programme.

My research on squatting led me to the conclusion that most of what we see within a squatter community is driven largely by necessity and that energy is mostly

spent only on what is most necessary and affordable. Imizamu Yethu is a case in point.

There is real evidence of ingenuity and creativity, but because of the constraints on time and money, there is only so much people can do for themselves and at some point it becomes the responsibility of the government to provide what people can't provide for themselves.

People can provide certain things for themselves, build homes for themselves and create positive spaces, but because of the severe pressures on squatter communities, the creation of threshold spaces is often neglected and I feel it is here where the government need to take action. I believe it is very necessary to have these threshold spaces as they are the in between spaces/meeting spaces where interaction occurs.

This design puts some of the ideas and principles learnt through my research to the test. It is a study and implementation of threshold spaces within the squatter community of Imizamu Yethu and implements different threshold principles.

16hã -
to be developed by
municipality
extent of site

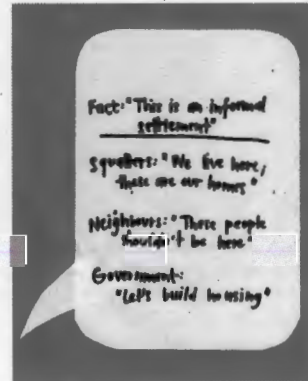


Focus on communal spaces

Public space is often neglected: by individuals who have more pressing needs and concerns, and by government who seem to underestimate the effect varied public spaces can have on people and their education and development/interaction and involvement within society.

This project focuses on the provision of spaces that people are unable to adequately provide for themselves and what is often not seen as the most obvious necessity.

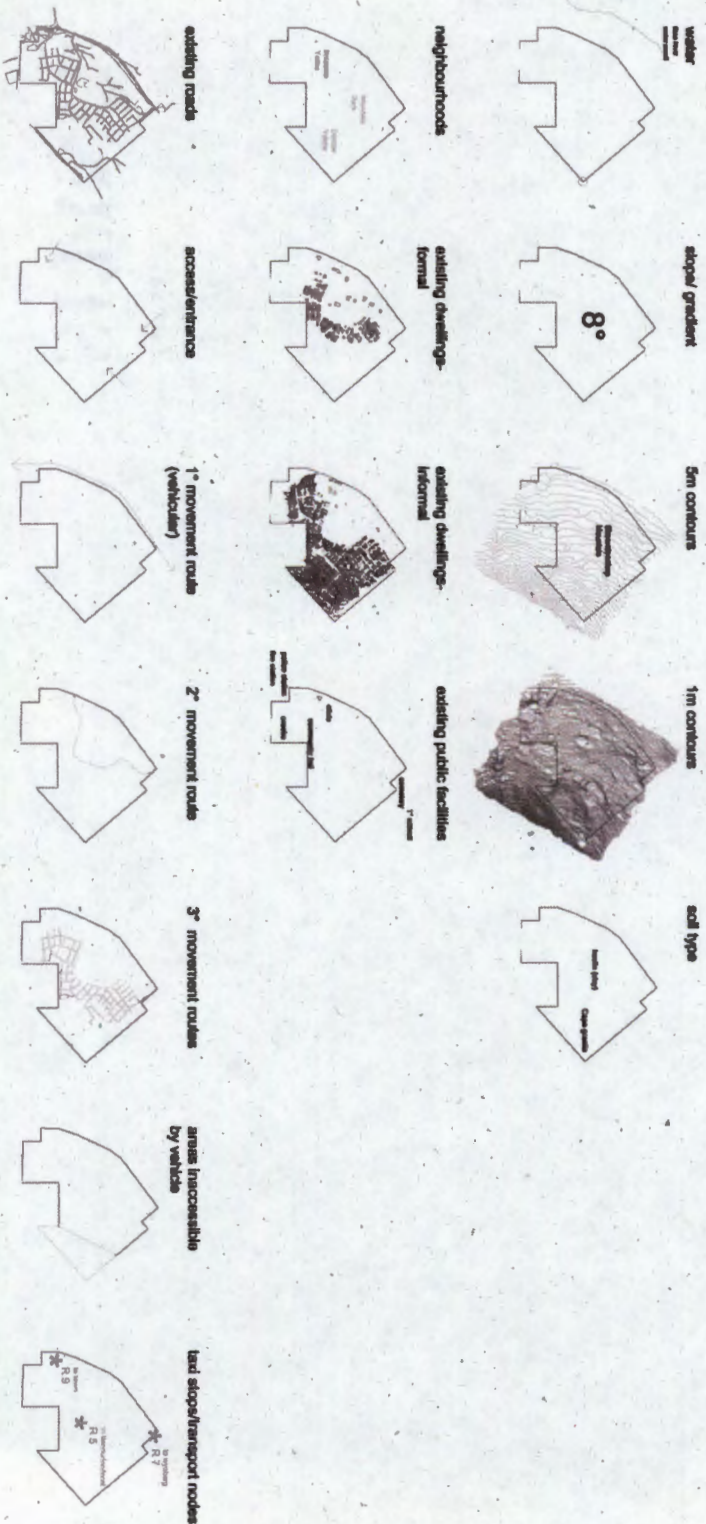
I have divided spaces for communal use into four interrelated groups which will be explained in greater detail in the section on 'programming': transport/movement spaces, community services, community development and exchange/interaction between people.

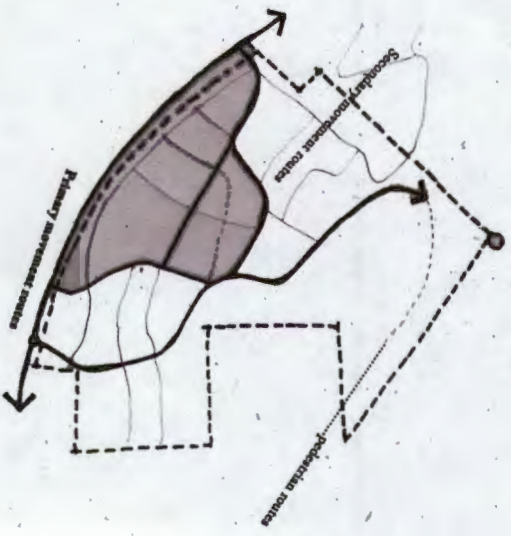
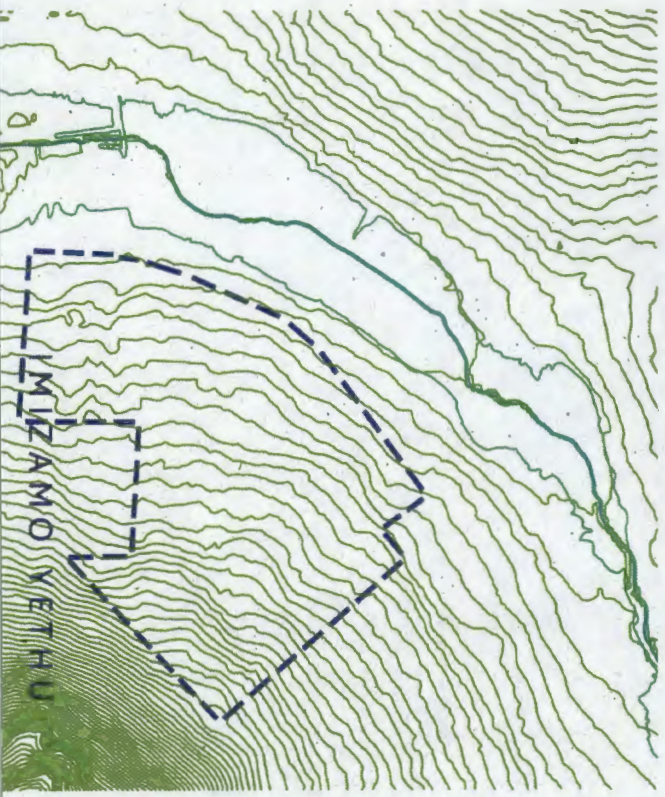
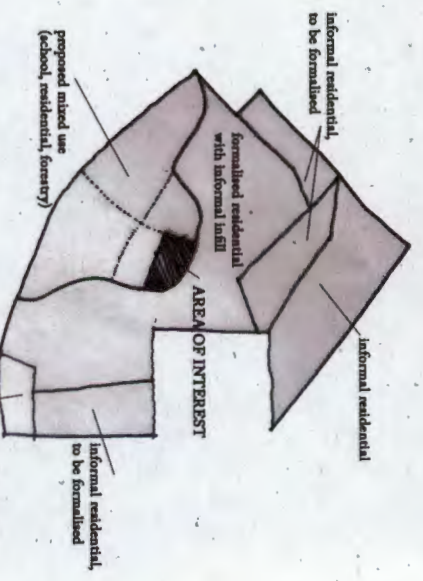


Part II

SITING

Site analysis - Imizamo Yethu





a section 1:5000

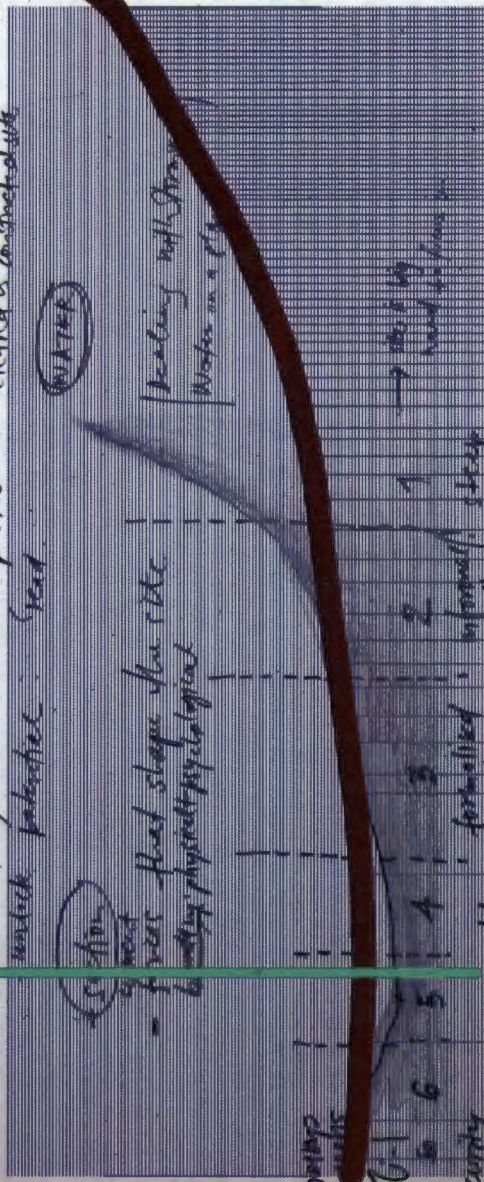
10.3.10

disa river

what are the issues

- trying to understand the site
- field readings on how to map site

cleared & constructed site



WATER

steep mountain slope
squatters huts
formalised housing
old forest
river valley
security villages the other side?

steep mountain slope

squatters huts

formalised housing

old forest

river valley

security villages the other side?

steep

flatter slope

road

WATER

steep mountain slope

squatters huts

formalised housing

old forest

river valley

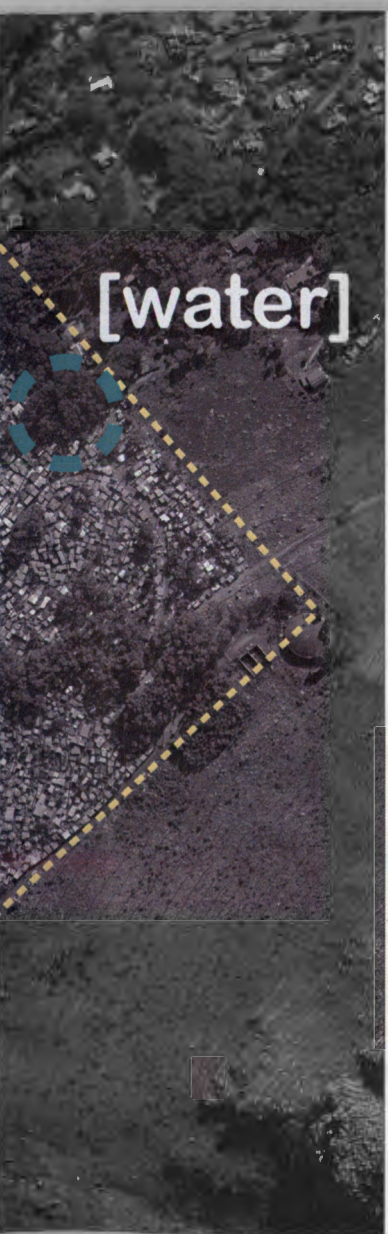
security villages the other side?

Choosing a site for intervening

[health]

[transport]

[access to
knowledge]



[water]

iy

imizamo yethu
hout bay

potential
sites
[needs]

Anchoring

Chosing site

Initially there were four possible sites, all varying in nature, size and issue, and all of which presented exciting opportunities and challenges.

The sites which I did not pursue required design interventions/ solutions which did not entirely support my approach towards and understanding of the informal and thresholds spaces and would not enforce and build on the knowledge I had gained through my research into these topics.

The chosen site, highlighted in red, is the most central area within the settlement. It is also the site most accessible to all communities, including the large number of people living in Dontse Yakhe. The potential of this particular site has also been noted by taxi owners, who have established an informal, but organised taxi stop on parts of the site.

Threshold spaces, as the previous research has shown, are the spaces in between, traversed on the way to a destination. This easily accessible and frequently traversed site, in a way, already holds the cues for the creation of further threshold spaces.



Old Forestry Station site



Looking westwards across the site.

In the foreground, existing trees which add to the special character of the site. In the middle distance, a ruin of what used to be the forestry fire station's head offices. The land slopes approximately 10m across the entire site, some of which has been terraced.



Anchoring



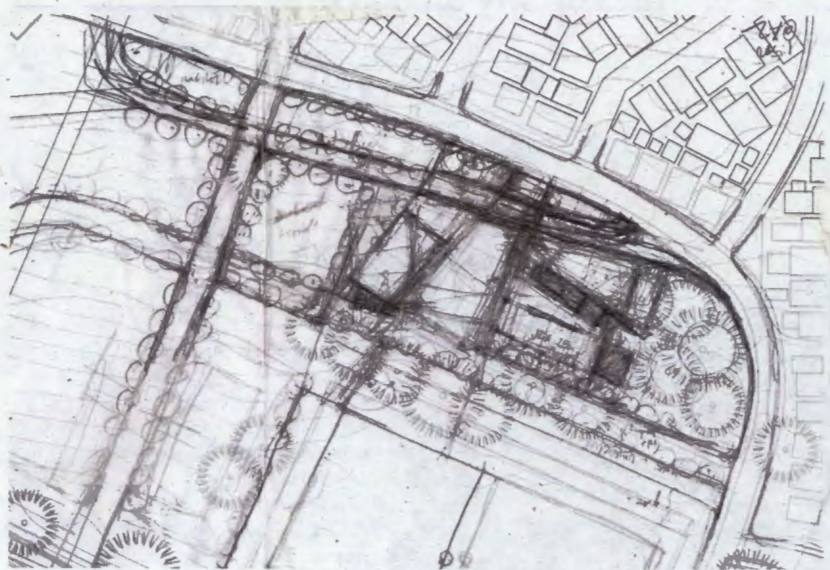
The Forestry Station site



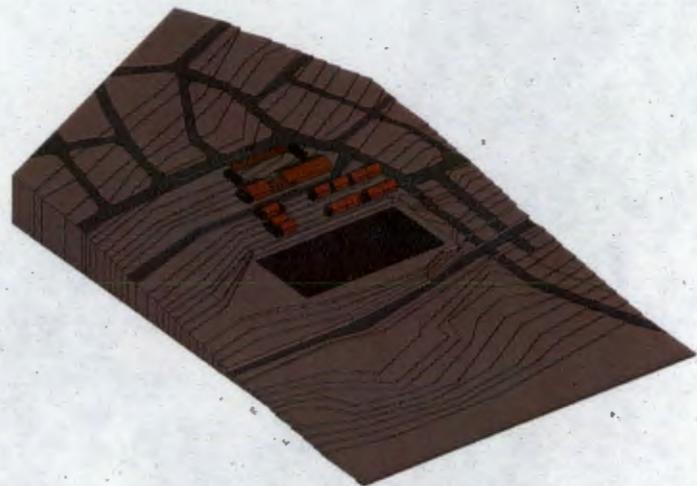
Corner activity

Small scale businesses have set up at the corner where the main vehicular thoroughfare splits in to two directions.

Eucalyptus and pines provide shade, shelter from the wind and visual relief from a predominantly residential built fabric.

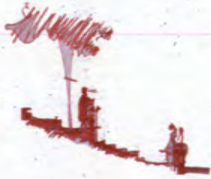


1. retain access through site

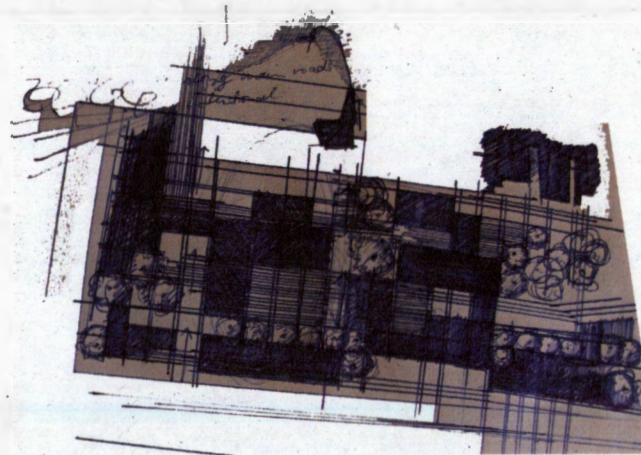


2. existing platform = soccer field
existing ruin = basis for communal facilities

Initial design ideas



3. use thresholds to differentiate between public and private realms and to provide places to site, meet, read



4. create a network of spaces where each interior space has a corresponding exterior space

Part III

PROGRAMMING



images illustrating materials and site-making strategies



images illustrating materials and site-making strategies



Spatial/experiential requirements

Work with what is there

Provide spaces of varied nature and size to allow for different encounters + experiences of learning

Allow supporting functions for what is already existing

Functional Requirements-Accommodation Schedule

1. Transport/ movement
2. Community Services
3. Community Development
4. Exchange/interaction between people

Programmatically, it will include:

Large meeting space

Indoor and outdoor

Public discussions, indalas

Indoor sports

Public gatherings, weddings etc

Accountability and learning space

'new kind of site office'

Studios and workshops

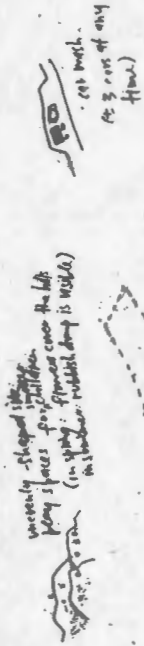
To test new ideas on site

Soup kitchen/canteen/bakery

Mobile library, knowledge grounds, inter generational library

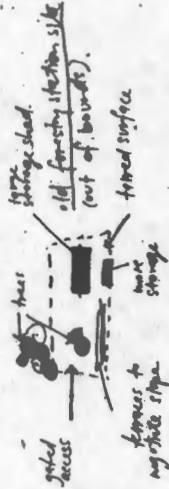
Structures that are flexible that can change over time as the need for different spaces and appropriations change

Anchoring



disappearing path
 > rubble used as building material.
 (used to be for station log)

pedestrian access through site (shortcuts)

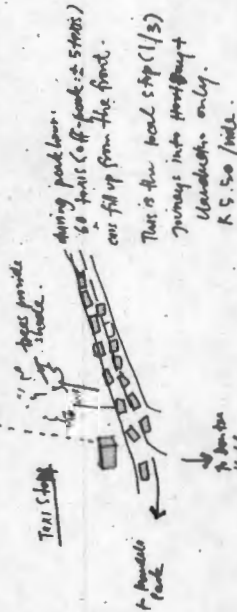
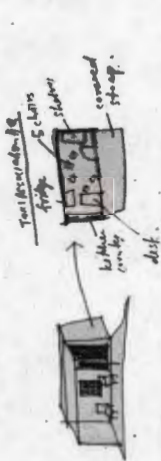


combination of small businesses - lots of pedestrian through here
 (changed throughout the year):

- rabbit seller
- herbal healer
- air time vendor
- one a day my (weath) meter
- hair dresser
- butcher

current activity:

current activity



mini soccer pitch



basketball hoops

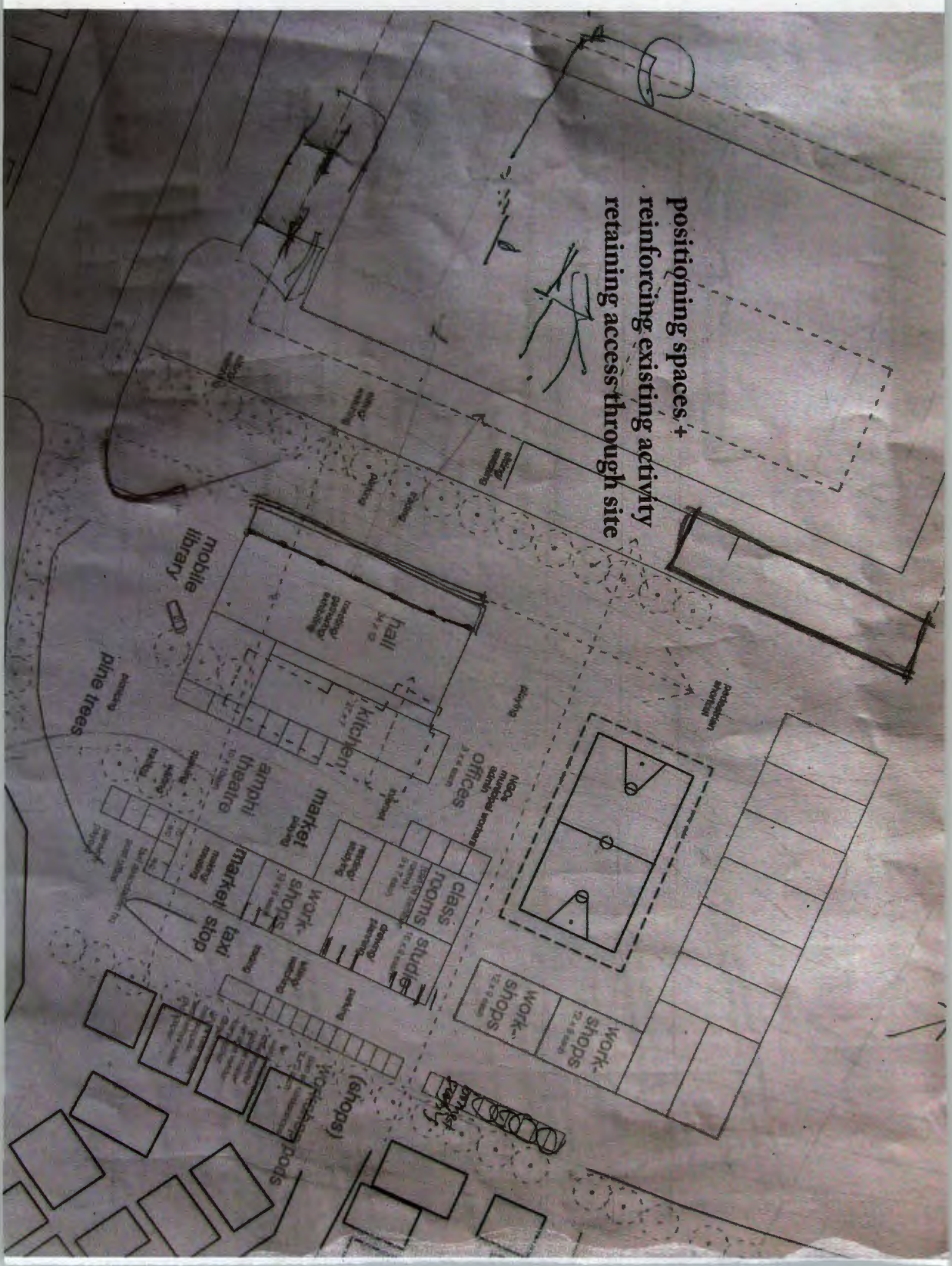


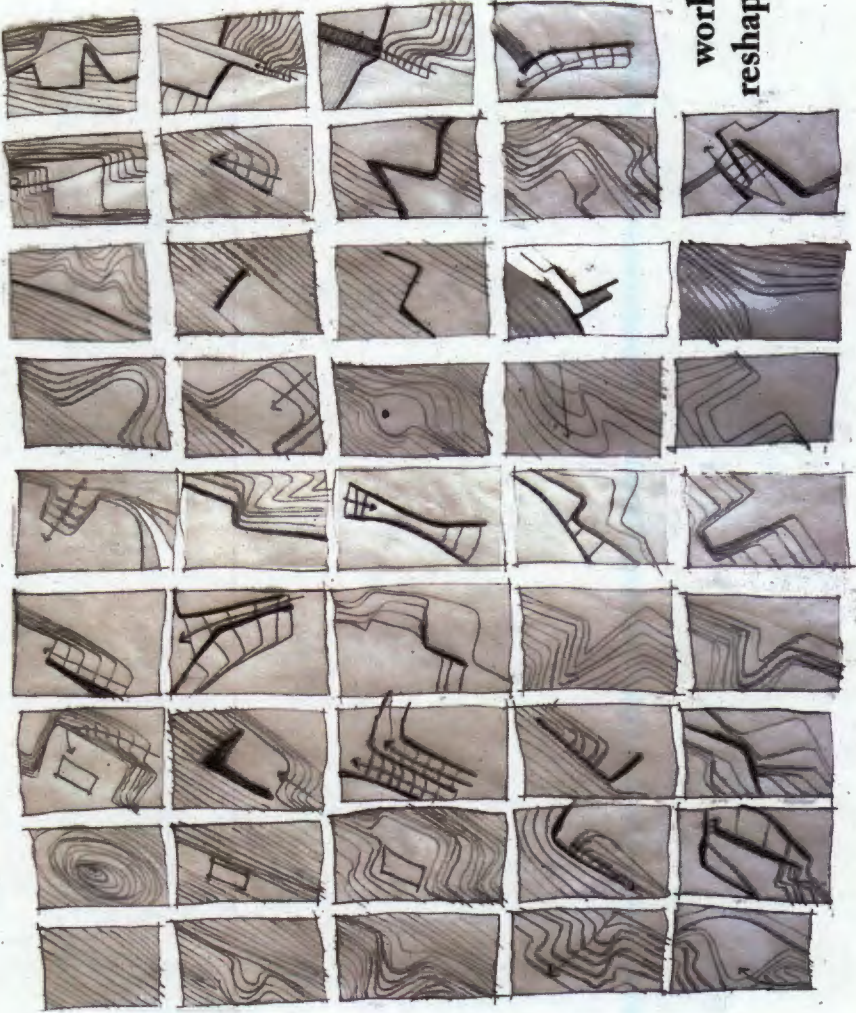
full old free (deciduous)



three old coaches and one young = play area. (in winter fires are lit)

positioning spaces +
reinforcing existing activity
retaining access through site





working with contours -
reshaping the levels



Conclusion

Reflecting on my project

The first part of the research on Imizamo Yethu has provided me with an in-depth understanding of this particular site. Through research into anchoring, sites and thresholds, I have attempted to find a way of architecturally dealing with some of those issues which are often neglected in informal settlements: the transition from inside to outside, the spatial variation of different types of privacy and the extension of buildings through threshold or transitional spaces.

The design provides an opportunity to test ideas on thresholds and smaller, in-between spaces in addition to the larger spaces needed by the community.

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