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4.1 | URBAN APPROACH:

[A condition of functional inclusion, spatial separation and political exclusion]

We live in a country with hugely varying formal and informal spaces. Sometimes, however, these spaces, especially within informal environments, are neglected and ill-defined making them difficult to understand (Relph 1976). Urban sectors, such as Marabastad, are not sustained by institutional support and are therefore often not incorporated into strong definitions of value or use. This results in an urban condition where there are patchworks of decay and renewal, and economic vibrancy and implosion. Marabastad is an example of the sheer volatility of urban life with its varying degrees of speed, its enclosures and exclosures and its relation of movement to rest. These dualities intertwine giving rise to a contrast of vacancies and overcrowded conduits of passage. There is an arbitrary contradiction of how urban environments can be both entrapments and platforms of opportunity. (Simone 2012:47)

The practices of 'invasion' and 'trespassing' reflect how those without secure urban

positions rely on an opportunistic approach to maintain viability of life. Those who must operate in the midst of urban uncertainties, with few resources at hand, form a dynamic relationship between the need to ensure some form of inclusion that would obviate racial divides, and maintain a way of valorising what has been accomplished in the 'shadows'. Marabastad is a prime example of how the excluded and marginalised have demonstrated their capacity to assume the same responsibilities, rights and possibilities as those who are included.

When urban environments start to become significant through economic prosperity, social livelihoods, cultural identity and spatial definition it is imperative to support and stabilise the urban fabric, their activities and the people who are dependent on them (Relph 1976).

It is imperative to formulate impartial strategies of urban develpment as the converse of this makes it impossible for the city to give rise to its full potential of configurations of space, time and sociality that are vital in defining cities. All cities have the capacity for its different people, spaces and activities to interact in ways that exceed any attempt to regulate

them. Insufficient attention is being paid to the ways in which large populations can do more than just participate from the fringe and periphery of the city. The excluded, the provisional, the marginal, and the ephemeral are all thought to point to a certain collapse of urban civility and justice. These are in fact the very conditions under which new forms of urban life are generated. Exposing previously under apprehended forms of urban life within Marabastad, through the critical observation of informality, will unleash the capacities and resilience of the majority. The city should not just be a framework for fair division of services but something that allows for the constant change and adaption that informality allows when identifying new opportunities for survival.

The ongoing struggle for social justice could only be affirmed on self-reliance, self-organisation, and initiative of informal networks. The right to the city therefore may be the right to be inconsistent, or to look disordered but this does not imply the right to be left alone - rather to engage, to be the object of request, to be realigned and to thrive in unanticipated ways (Simone 2011a, 2011b).





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4.2 | ARCHITECTURAL APPROACH

The dissertation will explore how critical investigation of informality within Marabastad can inform development through the observation of existing needs and opportunities as well as how architectural design interventions can assist spatial, social and economic cohesion, by providing infrastructural needs that consciously acknowledge informality as a development informant.

4.2.1 | OPPORTUNISTIC

South African cities are complex in nature as they have been formed as a result of the multifarious relationship between political, social, economic and natural informants (Figure 3.3). Western top down approaches to urban design and architecture have been found irrelevant and futile for the complex and continuously changing nature of African cities as they do not respond to the complexities of the city (Rustagi 2014). Present development strategies are based on the opportunistic visions of large developmental organisations rather than that of the local opportunistic and responsive approaches evident in the

informal sector. As mention previously, an opportunistic approach in informality has ensured some form of inclusion and accomplishment and therefore secured some form of economic viability.

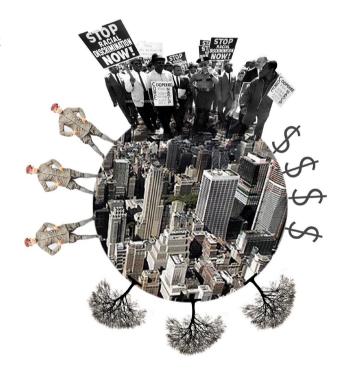


Figure 4.3. Development of African cities through political, social, economic & environmental pressures (Author 2015)

Opportunism is 'the taking of opportunities as and when they arise, regardless of planning or principle' (Oxford Dictionaries, 2014). Places of informality such as that of Marabastad have the ability to capitalise on available opportunities as they are able to adapt quickly.

Opportunism can be used as a strategy in creating opportunistic architecture which enables a constantly changing environment of needs and sees opportunities within these. The role of the architect is to anticipate these changes and to create spaces that support the inconsistency of these types of environments. Hamdi (2010) proposes that the architect keeps in mind the concpets of PEAS: Provide, Enable, Adapt, Sustain (Figure 3.4).

The degree of architectural intervention (that which its provided) will determine the success of the enablement, adaptation and sustainability. The architectrural intervention therefore becomes a platform for social transformation. The involvement of the existing actors of a place and their participation is vital in accommodating both present and future needs. Historically time has been an important factor in determining how space is occupied and transformed within the South African context (Crawford 2013).



Ever since its formation, the community of Marabastad have relied on opportunism for survival. (Aziz Tayob Partnership 2002:145) We need to establish communities that are adaptable enough to not only survive, but also to thrive under unstable conditions, that can look at their circumstances with an opportunistic eye and see possibilities for growth and establishment (Figure 3.4).

In Marabastad opportunism can be seen as taking advantage of a situation by turning its constraints into opportunities. The lack of infrastructure and permanence, for example, has inhibited stability but in the same breathe it has allowed its adaptability. This is known as symbiotic opportunism, where in bottom up processes, it refers to problem solving or making things work in conditions where minimal resources are available (Crawford 2013). The adaptation of constraints of a place into opportunities can be applied at various scales, e.g. the design of a simple canopy vs. the design of a programme significant element.

The spatial qualities evident in the adaptability and self-organisation of opportunism in Marabastad alludes to an appropriate architectural language. There is a need to respond directly to the existing conditions, strategies and patterns inherent in informal environments.

The dissertation will explore how informality allows for the development of an opportunistic architecture which satisfies the needs of existing activities while allowing for adaptation in the future.

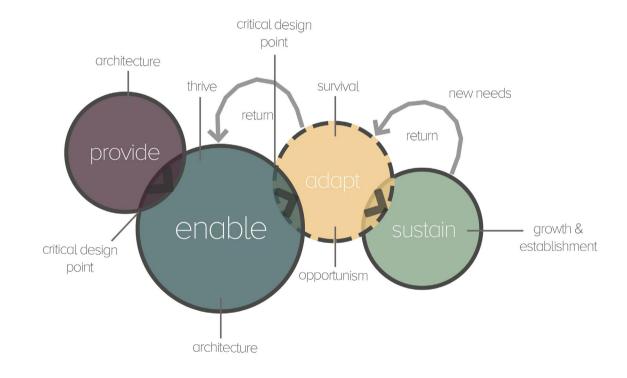


Figure 4.4. PEAS (Author 2015) adapted from Hamdi (2010)



4.2.2 | ADAPTIVE FUTURES

The Adaptable Futures group at Loughborough University is finishing a four year research project on designing for adaptability (Loughborough University year?). The project unpacks adaptability in detail looking at the complex web of dependencies that induce, hinder, and accommodate change. The research asks what we can learn from history, how buildings have been designed for adaptability and how they have been appropriated. It highlights layers, time, and context as primary dimensions regarding adaptability.

1. Building layers

Brand (1994) envisions the building as a set of shearing layers that change at different rates

The Adaptabl Ffutures' diagram adds a social layer to include the humans in and around the building. The diagram also adds a surroundings layer which encompases many of the neighbouring locational factors These additional factors also play a role in how a building and its constituent parts will change over time.

BUILDING LAYERS

SPACE PLAN

SERVICES

STRUCTURE

OPEN (PUBLIC) SPACE

2. Adaptability's blackbox

Adaptability is typically defined by a limited number of physical characteristics while several other physical and social variables are often left out. The diagram illustrates the importance of intergrating/including these outlying variables as they are relevant associations with adaptability.

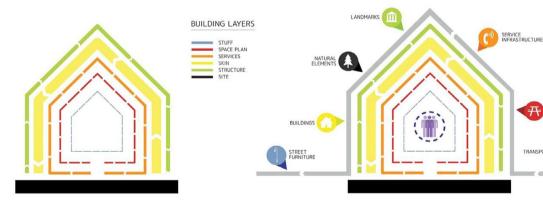


Figure 4.5. Brand's Building layers (Adaptable futures, 2008)

Figure 4.6. Adaptive futures' building layers (Adaptable futures, 2008)

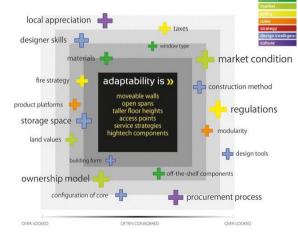
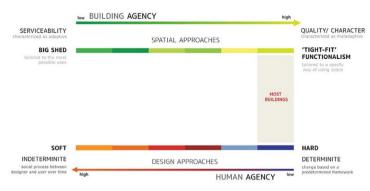


Figure 4.7. Adaptability blackbox (Adaptable futures, 2008)



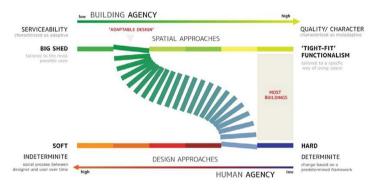
3. Building agency

Adaptability is a nuanced balancing of human, spatial and physical agency. The relational condition is constructed on the framework of two spectrums encompassing an approach to design: the top one (green to yellow) as a spatial approach and the bottom one (orange to blue), as a component-based approach.



The top spectrum is a spatial approach and the bottom one as a solution-based approach.

The top and bottom arrows indicate the increasing/decreasing relationship between human and building agency in relation to the spectrums



Most buildings find themselves to the far right as a product of highly efficient methods and solutions tailored to an initial use.

That which is labelled as adaptable is often a bland, yet determinate solution.



What gets labelled as good design is often a highly tailored yet more indeterminate design.

It is at the intersection of the two perceptions where one can find a more nuanced and balanced approach for adaptability.

Figure 4.8. Building agency (Adaptable futures, 2008)



4. Frame cycle

The purpose of the frame cycle is to make explicit the nature of adaptability desired.

The centre defines adaptability.

The six strategies or motivational goals move clockwise from relatively high-frequency changes to those that occur over decades, if at all (e.g. adjustable, versatile).

The types of outcomes that might be sought are indicated by the two tones of grey around the circle.

The potential solutions and benefits in terms of products, systems or tactics are indicated by the black text around the outside.

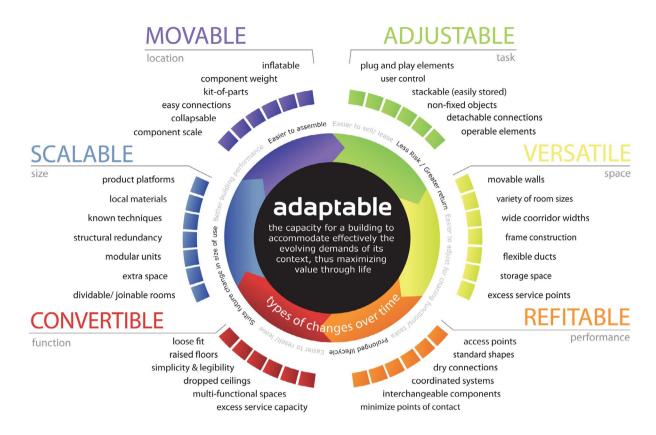


Figure 4.9. Frame cycle (Adaptable futures, 2008)



4.2.3 | FOMALITY VS. INFORMALITY

Sustainable growth of the informal sector in South Africa is due to rapid urbanisation with the steady migration into urban centres; failure by the formal sector to provide infrastructural support and service provision as well as to create sufficient employment and lastly due to competitive pressure through globalization. The burden of unemployment has led to the informalisation of jobs in the informal sector (Rogerson 1995; Simon 1998) (Sethuraman 1997). As mentioned previously 94% of informal enterprises within Marabastad are regarded as survivalist enterprises while only 6% fall into the growth enterprise tupe (Brand 2002). City environments often do not have the adaptive capacity to leverage changes that support socio-economic and environmental systems beyond survivalist conditions.

Informality exists as the inextricable experience of possibility and precariousness that defines the activities of the urban majority. Does this then mean that informality portrays a wider economic response to crisis or does it represents a dynamic, efficient, and democratic alternative for development

(Meagher 1995)? Informality sits in a predicament of either being too prolific or too transitory to gain institutional support through infrastructure or having enacted without the necessary resources of time, money and political support to become a 'norm' (Simone 2012). So where is the middle ground between the formal and the informal?

It is important to understand that formal and informal are not separate aspects of the environment, rather, they co-exist in a complex system of interdependency (Anderson & Jenkin 2011). Nevertheless, there is tension between the formal and the informal. Informal activities often foster make-shift architecture using available materials and attaching themselves to, or reappropriating existing formal structures and infrastructure. The architectural challenge lies where the informal seeks to adapt, remaining resilient to change, while the formal remains static (Cardosi 2011).

Where informality is so often seen as a mere strategy for survival, it in fact has the potential of prompting the path for development because it informs and alludes to the needs of a place as well as to spatial appropriateness (Anderson & Jenkins 2011). Informality constantly

emeraes through a dunamic, flexible process, moving from need to need. opportunity to opportunity, in a series of adaptations (Mills 2012). It allows a place to evolve into what it needs to be This unconventional and informal approach to 'architecture' holds the very solutions to the shortcomings of formal development (Rudofsky 1964) towards a new 'vernacular' architecture that is able to define the identity and characteristic of a place by responding intuitively to the needs and opportunities of its socio-economic environment. Informality is shaping our environments and the more we learn from this 'vernacular architecture' the more successful we will be in designing space that works and accommodates the real needs and opportunities of a place. Spatial solutions within the informal should indicate a suitable architectural language within the context of Marabastad. This process entails a thorough understanding of informality and how formality can be used as a catalytic tool for informality in creating new platforms of opportunity, connection and engagement (enabling informality to shed light from the. The socio-economic opportunities that exist within the informality of Marabastad offer huge potential if only provided with the platform to do so (Manning 1993).



CO-EXISTENCE OF FORMAL & INFORMAL

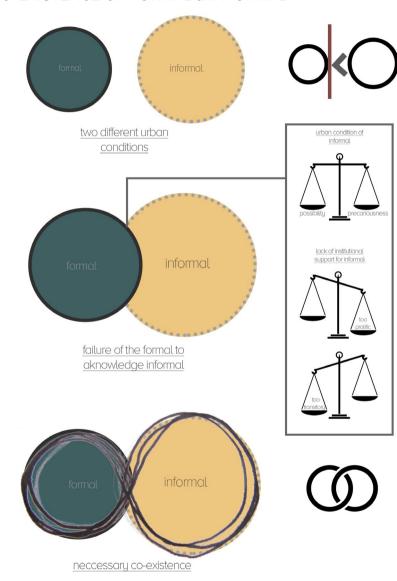


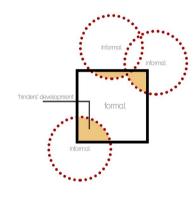
Figure 4.10. Relationship between formal & informal (Author 2015)

TWO URBAN CONDITIONS

two urban conditions



informal attaches to formal



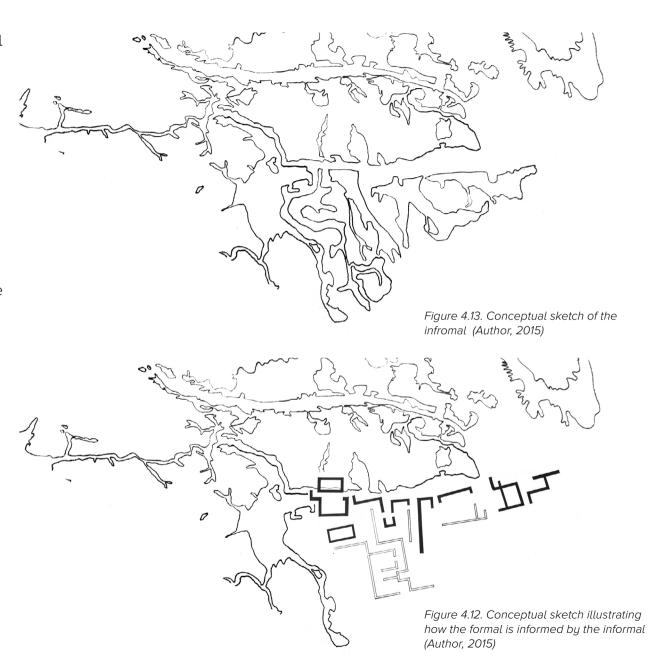
informal informs development of formal



Figure 4.11. Two urban conditions: Informal informs formal development (Author 2015)

Resolving the ambiguity between the formal and informal will enable architectural design interventions to provide adequate infrastructure for the informal sector, increasing the potential of possibility over precariousness and enabling a transition from survivalist to growth enterprises.

The dissertation aims to show how the acceptance of informality and the value of its activities is the solution to providing economic stability and positive growth within environments like Marabastad, that sit vulnerably and precariously on the fringe of the formal urban condition.





4.2.4 | PUBLIC & SOCIAL SPACE **TOWARDS SENSE OF PLACE**

PUBLIC SPACE

Marabastad's urban fabric has undergone many transitions over its history. It has been witness to settlement and establishment. relocation, demolition, forced removals, resettlement and re-establishment.

Political motives during Apartheid resulted in a lack of spatial planning, leaving Marabastad's urban fabric vulnerable and ill-defined. The invasion of all vacant land and subsequent domination by retail and transport networks resulted in the elimination of all social pubic space as well as a lack of hierarchy of space, contributing to further illegibility.

Where Marabastad once provided a sense of belonging to blacks, coloureds and Indians, it now experiences a loss of identity and attachment by all cultures and race. David Brower as sited by Gussow, states the redevelopment of such attachment and ability to experience a place is vital in creating a sense of place through identity and character (Brower 1971:15).

A place is a centre of action and intention. "a focus where we experience the meaningful events of existence together" (Norberg-Schultz 1971:19). "Public space is the city's medium for communication, with the new and the unknown, with history and with the contradictions and conflicts that arise from all those" (Christ 2000:17).

There is therefore a need for designated public space (Blak 2013) that is not occupied by retail and transport, able to revitalise Marabastad's urban environment by establishing hierarchy through definition of place (Bremmer 2010:252). Marabastad consists of various degrees of public space from historicallu significant spaces and buildings, to formal retail, street vendoring and pedestrian walkways. Krier (1989:47) explains that the success, significance and authenticity of a place lies in the modification of the old space, which is based on the requirements of the existing activities that occupy the space (Vycinas 1961). It is therefore important to understand the urban condition of Marabastad, as the solutions stand firmly in the existing condition.

Limited social interaction of selling & buuina





Figure 4.14.

Figure 4.15.





Figure 4.16. Figure 4.17. (Figures 4.14 - 7.17. (Aziz Tayob Partners)

Encourging public space for social interaction as was in the past







Figure 4.18.

Figure 4.19. Figure 4.20.





Figure 4.21. Figure 4.22. (Figures 3.18 - 3.22, Aziz Tayob Partners)



SOCIAL SPACE

Although there is huge importance in creating public space within the context of Marabastad there is also huge importance in encouraging social space. Public spaces are those spaces that are merely accessible to the public, i.e. the street vendor selling tomatoes on the sidewalk is occupying a public space. Social spaces on the other hand are spaces that encourage the interactions and encounters of people within a space beyond daily routine and activities. A social space is identified as an integrating space that accommodates, adapts and relates to surrounding spaces. "A city sidewalk by itself is nothing. It is an abstraction. It means something only in conjunction with the buildings and other uses that border it. or border other sidewalks very near it.... Streets and their sidewalks, the main public places of a city, are its most vital organs. Think of a city and what comes to mind?" (Jacobs 1961:39).

Place making is the art of creating public places that uplift and help connect one another "Making a Public Space a Living Space" (Oxford Dictionary).

The 'community' of Marabastad is made up of several different cultures and races and each day they share the place regardless of their forced geographical separation (Figure 3.23). Understanding the history of a place like Marabastad with its diverse cultures, is imperative in creating successful public and social space. There is a necessity for social interaction and cohesion between cultures and races which encourages a sense of identity, belonging and foremost, community. Social spaces should be easily accessible to all cultures and races, where the frequent movement of people and their interactions will contribute to the success of the public space.

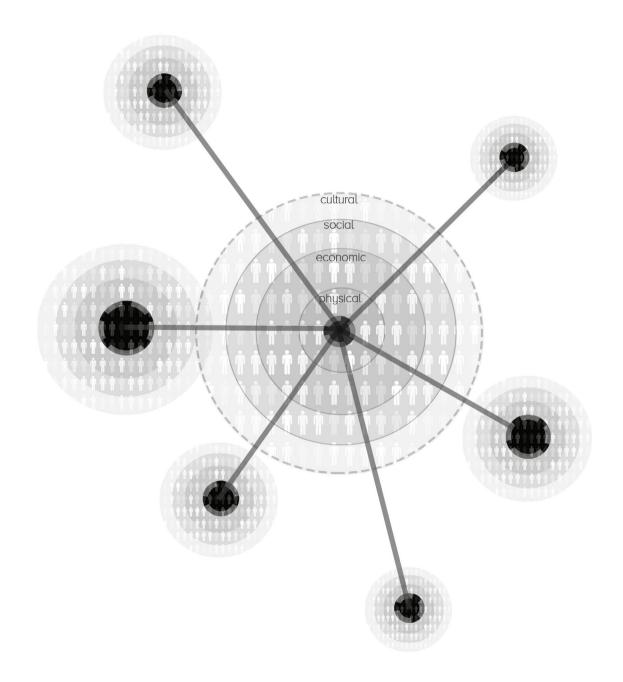
Jan Gehl in his publication, Life Between Buildings (Gehl, 1987; Therakomen, 2011) states that social activity happens every time two people are together in the same space. To see and hear one another is in itself a form of social interaction. By this definition social interaction is evident throughout Marabastad, however, it is limited by its embedded transitory nature and lack of designated public space. The actual meeting where one is merely present is only the seed for more comprehensive forms of social activity. Marabastad's temporality restricts its ability for meaningful social interaction between different users of the space.

Architects can affect possibilities for seeing, meeting and interacting with people encouraging a sense of identity and place while also promoting the social and economic activities which define this very space (Therakomen 2011). Spontaneous daily activities lead to possibilities for interaction and architecture responsible for creating these platforms of interaction.

It is imperative to understanding what defines place in creating socio-economic environments that enhance the way in which multiple informal networks participate, calculate their chances, keep open multiple futures, maintain accessible environments, continuously adjust how they survive, accumulate resources collectively, and how they contest specific constraints on their maneuverability. Architecture needs to create space that crosses these social, economic, cultural and racial boundaries (Mehrotra 2011).

In informal environmnets like that of Marabastad it is the people and their activities that define place over the building they occupy (Figure 3.24). The architectureal intervention therefore needs to allow for participation by users by providing flexibile and adaptable space.





"...We cannot reduce society to individual interactions... Individual interactions are endlessly replaced. But certain underlying patterns in these interactions persist. It is these patterns that we name society. The patterns can be the result of any number of different patterns formers...include[ing] the spatial form of society... Space is the one thing that can generate and restrict encounter and interaction probabilities, indeed, and this is how space becomes involved in society" (Hillier 1996: 402).

Figure 4.23. Social pubic space



The need for a new pubic typology is necessary where public space can support both economic vigour and social interaction and where culture can be expressed and racial diversity celebrated.

Aymonino & Mosco (2006: 21-23) identify four points that define public space:

- 1) A strong relationship with its surrounding context
- 2) Multiple potential and variety of use
- 3) Evoking a positive sense of participation
- 4) A space that is open to all.

There is a need for "looseness of space". Loose space is defined as "space that has been appropriated by citizens to pursue activities not set by a predetermined programme" (Figure 3.24) (Franck & Stevens 2006:42). The looseness of space strengthens the concept of programmable urban surface, which responds to the everyday identity of space, allowing for self-organisation, adaptation, development and growth.

DEFINING PLACE

FINTITE VS FLEXIBLE BUILDINGS

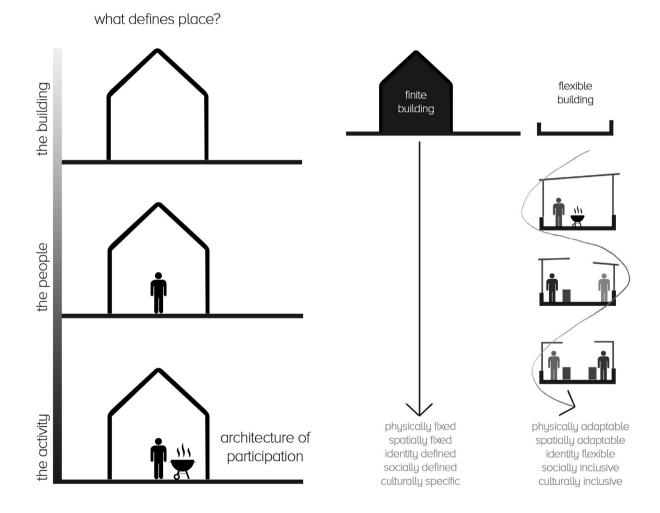


Figure 4.24. Defining place (Author 2015)

Figure 4.25. Finite vs. flexible buildings (Author 2015)



MARABASTAD'S USERS & NETWORKS DEFINE A SENSE OF PLACE

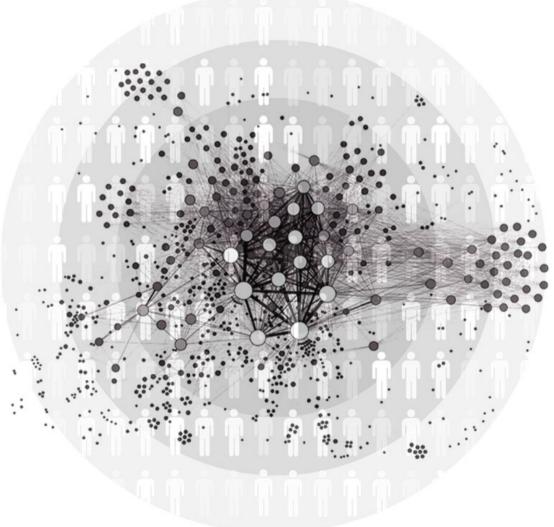


Figure 4.26. The connectivity between people and networks in Marabastad (Author 2015)



4.2.5 | SPACE AS RITUAL: AFRICAN CITIES

Eurocentric influences, as a result of colonialism and globalisation, are evident in the design of African urban environments. This approach is somewhat a-contextual however, as the formation and development of African cities has been very different from that of European cities. Dominating formalistic approaches in architecture and urban design are based on Modernism's separation of subject and object and the subsequent loss of human and bodily experiences as informants of spatial construction.

The isolation of the human subject from the object has left it solitarily confronting the chaos of the built environment (Siegfried & Kracaucer 1884 – 1972). The abstraction of the built form towards the creation of the "object" and the suppression of cultural identities has resulted in the loss of the human aspect as the prime informer of the production of space. The human needs to be included in production of space so that it becomes both the subject and the object. In opposition to the disregard of the human by formal solutions architecture and urban design can be based on experience rather than solely needs. (Borden 2001:11)

Lefebre (1991: 36) proposes the restoration of the sensory, sensual and non-visual in architecture.

Rejection of the formal approach to space and consideration for the human is therefore imperative. Doreen Massey (2005) suggests three ways in which to recognize the human when considering urban and architectural space: firstly, understand space as a product of interrelations; secondly, understand it as a sphere that allows for the existence of multiplicity and thirdly acknowledge space as always being in a state of incompleteness.

This approach supports the concept of informality as a means of creating space as a temporal condition where space and time co-exist. Spatial differentiation can therefore be defined as events happening over time, despite being geographically static (Massey 2005: 29, 30, 188). By accepting space as temporal, spatial definition of informality within South Africa can be celebrated. This condition allows space to be adjustable and variable, allowing public space to be continuously occupied in different ways (Massey 2005:66, 84). This selforganising system recognizes the citizen's right to inhabit a flexible and mutable city (Koolhaas 2001: 661, 674). In the case of

African cities this means that space can be maintained through connections rather than through exclusion.

The urban landscape needs to be a dynamic, responsive and active urban surface which allows processes and events to move through them and encourages the new relationships and interactions between object and space.

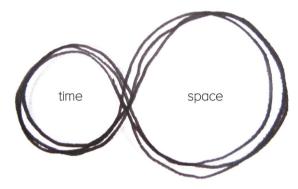


Figure 4.27. Informality as a means of creating space as a temporal condition where space & time co-exist (Author 2015)



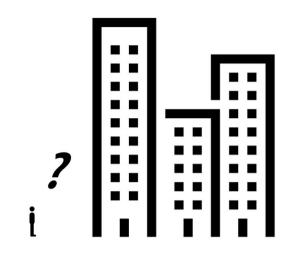


Figure 4.28. Architecture as object (Author 2015)

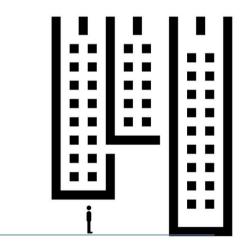


Figure 4.29. Architecture that enables human to be the subject and the object of space (Author 2015)

SOCIO-SPATIAL RECOGNITION

Human behaviour and social practices are inherently spatial and the organisation of space is therefore a social product defined by agents operating within a specific social structure (Wolch & Dear 1989: 7). Urban environments are therefore not defined onlu by physical boundaries but also by human boundaries that outline the possibilities and limitations of human behaviour. Intentions to fill in gaps, increase densities, mix land uses and stitch the fragmented city together can therefore only be partially resolved through architecture. Architectural intervention should allow the life of the city to take its own form. Forty (1995: 314) warns that "if the task of reintroducing identity, community and continuity into the life of the city was consigned to architecture alone, the emphasis will remain on formal and aesthetic solutions, undermining the conditions conducive to the establishment of an affirmative contemporary social urban culture".

RECLAIMING IDENTITY

The complex contemporary South African urban condition, founded on its diverse cultural identities, demands strategies capable of tolerating contradictory impulses and with the capacity to capture a layered society with all its perceptions, patterns and

structure (Caples & Jefferson 2005:6). Feasible urban strategies need to allow South African cities to reflect community, democracy, participation, transparency and humanism. Strategies should include processes of rebuilding, incorporating, connecting and intensifying what already exists.

This will enable cities to reclaim their identity and address issues of diversity among social groups experienced in the every day. Urban spaces must be able to accommodate human beings as social beings who belong to a self-organising and multifaceted society. Open urban systems need to be founded on a social and collective space where heterogeneous society is capable of expressing itself. This communal space should be adaptable so as to readily accommodate spontaneous [re]appropriation allowing for huge programmatic potential.

"Disorderly" African public space should allow for indeterminate social engagement that encourages cultures of engagement, social transformation, new coalitions, inclusion and hybrid identities that work against exclusivity (Sennet 1992).



SOCIAL FUNCTION OF ARCHITECTURE IN THE URBAN REALM

It is the social construction that enables a variety of uses, and an open system that connect the city. An architecture able of resisting its nature as a formal, self-determining practice has the ability to reassume spatiality as a social function through cultural expression and place making. The success of architecture does not lie in the physical or material elements but rather the effect these have on the experience of the users. Meaning cannot be predetermined by architecture but rather by the experience of it users.

NON-ARCHITECTURE

By regarding space in terms of movement, time and flux, the city can be perceived in view of social, cultural, political and economic spatial landscapes (instead of physical) where public interaction is maximized and social exclusivity is undermined. An urban condition which defines public space through events, prevents necessary, optional and social activities from being marginally influenced by the physical elements

In reactivating the African city, the quality of urban space of existing activities needs to be improved and reprogrammed as

democratic places that support different levels of social events. Spaces that contest functional hierarchies through adaptability can be seen as democratic, where experience is not reliant on the dominant requirement of use. An African City, in accordance with Koolhaas et al (2000: 653), is one that does away with the conventional notion of 'city'. It is where the public realm is continuously occupied in different ways and spaces are dynamic and flexible, constantly regenerating themselves.

CONCLUSION

In conclusion design and planning should act within social, cultural, economic and political disciplines in uncovering and responding to the spatial problems of African Cities – reintroducing the body and the lived experience as central concerns. Spatial strategies to be considered:

- Create adaptable, fluid public space that allows for movement and event and is not determined by or reliant on pragmatics.
- Reconsider the relationship between object and space by enabling thresholds to also define spatiality.
- Blur boundaries and edges so as to allow interrelationship between internal and external space as well as private and public space.

public space as facilitator of points of contact







Figure 4.30. Public space as a catalyst for social interaction (Author 2015)