Chapter 4 - Space

Urban Theories

Several schools of thought in urban design agree that more efficient use of urban land will create a more compact and integrated urban form. As this is desirable, it is only logical to utilise more integrated design solutions as opposed to quick cosmetic ones.

As not enough emphasis is placed on the three dimensional relationships between buildings. (Trancik, 1986: 19, Gehl, 1987: 101), spaces are too often analysed from a two dimensional perspective without a real understanding of human needs.

Urban space is far too often thought of as on external volume rather than space with a connection to other spaces. This often results in unshaped "anti-space".

"Anti-space" or lost space consequently become misappropriated or misused for programs that detract from the surrounding social context i.e: parking lots. The site in question (and other sites along the Apies River and Walkerspruit) have become testament to this reaction. Many inappropriate practices currently occupy the edge of the site, inappropriate due to there sensitive location - further detracting from the recreational potential of the rivers, as well as the heritage and cultural potential of Church Street and Lions Bridge.

The challenge thus arises how to reconnect space in an existing urban context to create place.

Every modern city has considerable amounts of vacant, unused land in its centre that could potentially be developed into recreational open space.

Over the years, radically changing economic, industrial, and employment patterns have further exacerbated the problem of lost space in urban centres. This is especially evident along many of our highways, railroad lines and urban rivers, disrupting the overall continuity of urban form.

While the above mentioned spaces are obvious examples of lost space, it is important to define lost space and how it differs from other positive urban space. Trancik defines these fragmented spaces as follows (1986: 3) :-

- Areas that are left over – unstructured land scape or abandoned areas, away from pedestrian movement and activity that represent the life of all cities.
- The surfaces that ring the urban core severing connections between the commercial centre and residential areas. These are the no-man's land areas along edges of urban rivers, freeways, areas that nobody cares about maintaining; much less using.
- Residual areas between districts and loosely composed commercial areas.
- Deteriorated urban parks or old industrialised space that detract from the well-being of city living.
- Areas in need of redesign – antispaces that make no positive impact or contribution to the surrounding users.

Lost space offers opportunities for urban redevelopment, creative infill and for rediscovering new hidden resources within our cities.

Keeping the above mentioned in mind, Trancik argues that it's not only important to identify lost space, but to also understand the causes (1986:4).

The five major factors that contribute to lost space are:

- Increased dependency and emphasis placed on vehicles.
- Attitudes of architects of the modern movement towards open pace.
- Zoning and land use policies of the urban renewal that divided cities.
- Unwillingness of public and private institutions for assuming responsibility for public urban environments.
- Abandonment of industrial, military, or transportation sites within the inner core of the city.

Figure 4.1. Sketch illustrating the concept of existing networks and integrated pedestrian circulation patterns . (Author, 2011)
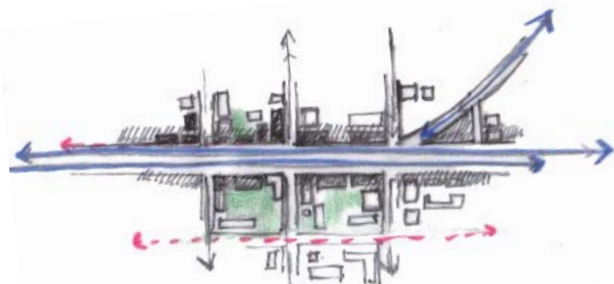

Figure 4.2. Sketch illustrating the contrast between pedestrian designed city planning and vehicular design city planning (Author, 2011).
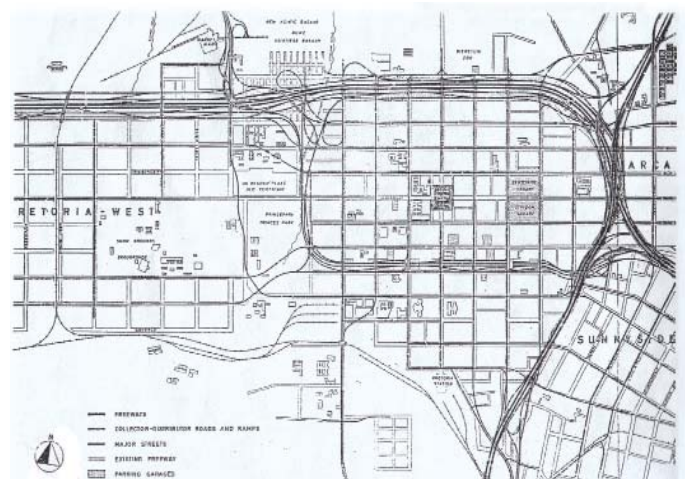
Figure 4.3.(below) Photograph illustrating the construction of most modern cities with design focus on vehicular networks that result in large area's of residual spaces. (www.panoramio.com, 2010.)

The automobile

"Mobility and communication have increasingly dominated public space, which has consequently lost much of its cultural meaning and human purpose" (Trancik, 1986: 5). Streets no longer form essential urban space for pedestrian use, but only represent the function of the fastest mobile link, regardless of social cost. Streets become wider, further segregating open public spaces to form public transport networks and have thus developed into urban highways making pedestrian city environments more unsafe and fragmented. This results in previous open spaces that were part of pedestrian movement networks, becoming isolated that no longer form part of social networks - open islands of wasted space that become degraded and later converted into for parking spaces for vehicles.

Figure 4.4 Proposed ring-road around the city of pretoria (Architectural archives, University of Pretoria, 2011).
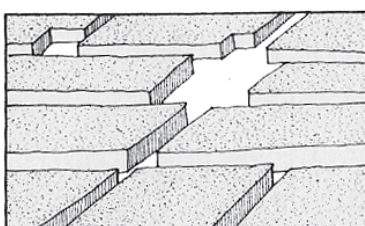
The modern movement

The concept of walkable cities needs to be re-investigated in which green networks between open spaces are created so that the pedestrian becomes the catalyst for city developments, not vehicles.

Figure 4.1 illustrates the concept of walkable cities with networks of open spaces connected along pedestrian routes. These spaces create vibrant cities that attract people to visit creating vibrant mixed activity and create attractive environments for integrated city living.
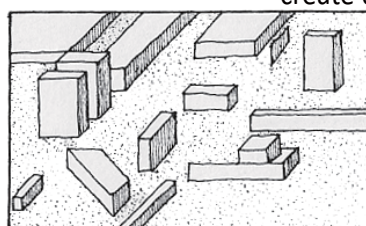
Figure 4.2 illustrates the negative effects of the city development strategies, where pavements and public spaces are overtaken by the focus on vehicles through the construction of urban highways, creating fragmented relationships that result in the degradation and segregation of social networks.

Figure 4.4 Illustrates the proposed ring-road around the City of Pretoria, which has resulted in the loss of integrated pedestrian movement and social networks between the east of the city and the Apies River.

Buildings were designed and thought of as isolated entities, masterpieces in their own right – each building designed to change the city skyline with no regard to context or culture of the city. The functions of buildings gradually became more and more displaced from their external environments, fragmenting any relationships between external and internal space. Peterson therefore takes a stand and defines modern space as "anti-space"; the traditional architecture of streets, squares and rooms created by differentiated figures of volumetric void is by the presence of "anti-space ""...[which] leads to the erosion and eventual loss of space." (Peterson in Trancik, 1986: 9). Unlike that of modernist planning, the traditional principles of planning on all scales needs to be attended to, from factors of hierarchy to well defined spaces; their edges; from where the street meets the pavement, the pavement the thresholds, and the thresholds the interior or exterior and so on. There needs to be defined and interactive relationships that cohesively flow together.

Figure 4.5 Illustrates the difference between the spatial structure of a traditional city and that of a modern city. In the traditional city, urban blocks direct movement and establish orientation; in the modern city the blocks are fragmented and confused structures that create disorientation (Trancik,1986:19).

Figure 4.5 (below) graphic of city forms (Trancik,1986)

The Traditional City Form

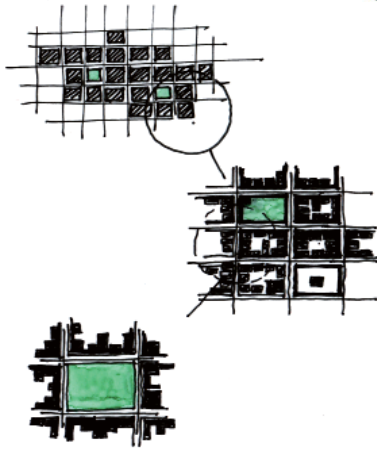The Modern City Form

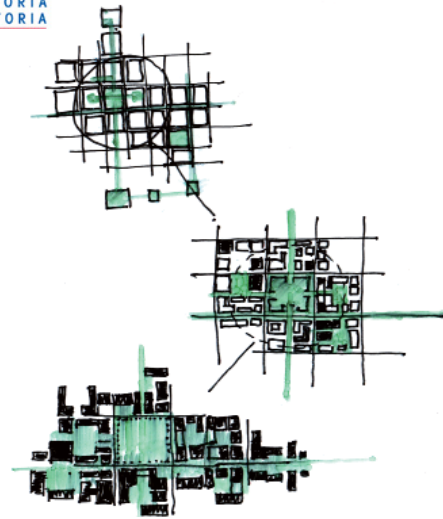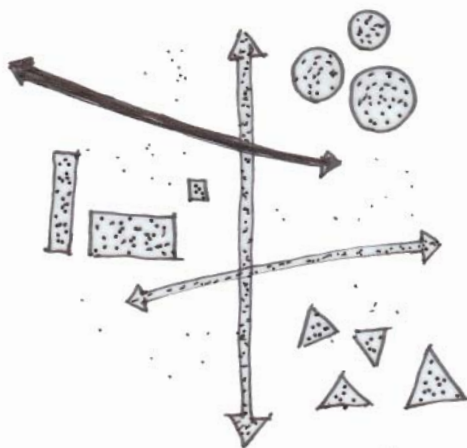Figure 4.6 Modern use of urban form (Author, 2011).

Figure 4.7 Traditional use of urban form (Author, 2011).

INTEGRATE

SEGREGATE

Figure 4.8 Illustrates difference between Integrated urban planning and segregated. (Gehl, 2006:101)

Zoning and urban renewal

The loss of traditional qualities of urban space is the result of zoning policies and urban renewal implementations. With impulses to promote human welfare through segregation of land uses, and substitution for high rise commercial towers, the policies and implementations rarely corresponded to the spacial structure of evolved community patterns and cultures, nor did developments respond to the social relationships that gave meaning to the community's existence.

Districts segregated living space from working space and created areas that could no longer accommodate physical or social diversity, thereby defying the laws of what was 'urban'. The result of modern urban planning is citizens subdivided into homogeneous districts, separated by traffic arteries and forbidden from living above where they work.

Figure 4.11 Illustrates the difference between integrated urban solutions that encourage vibrant mixed use and community culture and social relationships to develop, and segregated zoning policies that separate different uses, which result in less vibrant and dynamic and robust spaces.

Zoning laws have operated under assumptions about human welfare and happiness. The complexity of social and functional relationships in the urban setting was incompatible with Modern Movement planning, which required aesthetic completeness for visual and graphic effect (Trancik, 1986: 12).

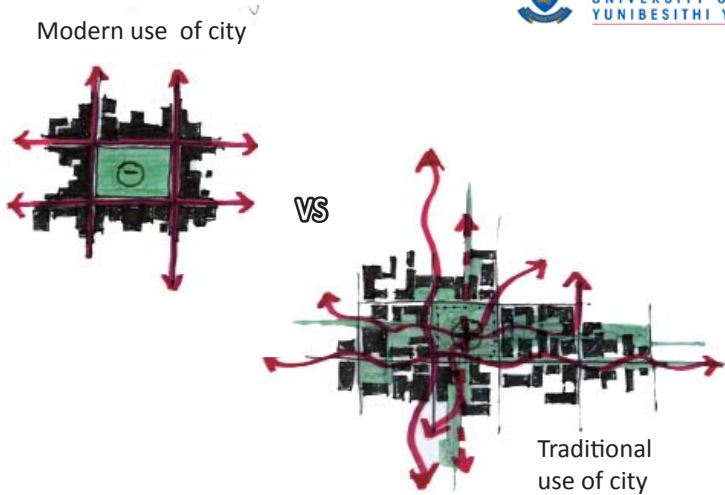Pretoria, like many modern cities, was once rich with

Modern use of city

VS

Traditional use of city

Figure 4.9 modern concept of using open spaces vs traditional use of space
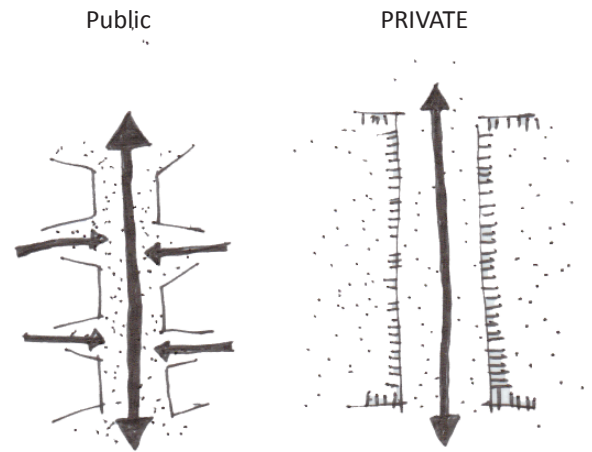

Public   PRIVATE

Figure 4.10 concept of public and private planning straegies

traditional qualities, and social networks that became known for its natural resources and beauty. However, it became consumed by the demands of city developments, which resulted forced reappropriation of space, forced removal and relocation which in turn resulted in the breaking down of natural social networks.

Figure 4.6 Illustration of how open recreational spaces are cut off from surrounding context becoming segregated and isolated left to be managed by city municipality. These spaces often become neglected and unsafe.

This, in turn, resulted in people losing touch with their surroundings and existing recreational spaces being abandoned, left to deteriorate and become unsafe, forcing areas to be closed off or privatised, which escalated the problem leading to further de-urbanization.

Figure 4.7 Illustrates the use of open spaces as more integrated spaces creating networks between other open spaces,becoming more mixed use and resulting in more traditional uses with vibrant spaces between buildings, allowing people to take ownership of spaces without space becoming privatized.
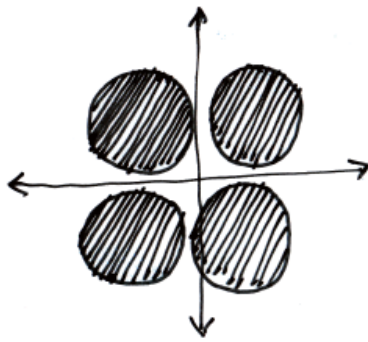Figure 4.8 Conceptually illustrates how people can freely use integrated public spaces that could create a larger variety of recreational open spaces. These spaces also become better controlled and policed, resulting in longer periods of use.
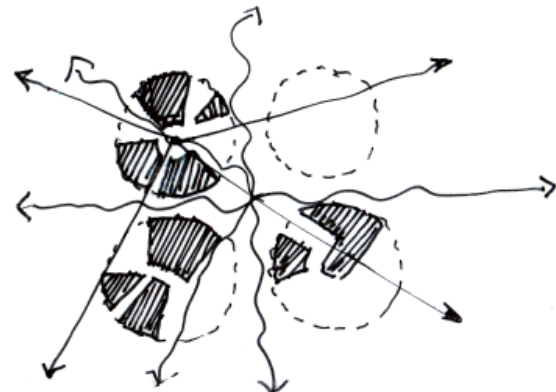
Privatization of public space

Private enterprises have also contributed significantly to lost space in our urban centres. As cities grow and the demand for space increases, buildings tend to push toward vertical cities or take over open space, leading to the miss appropriation of public space for private expansion.

In the past, the designs of streets, squares, parks and other public space, were integrated with the design of individual buildings. However, in the modern city, each element is the responsibility of a different public or private organisation, and the unity of the total environment is lost.

Figure 4.10 illustrates the difference between more private use of space and the public, and how privatization results in less integrated use of public spaces. Public spaces can become more inviting and more accessible to the public making it easier - both physically and psychologically - for people and activities to move back and forth between public and private spaces, between in and out (Gehl, 2006: 113).

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Exclusive

Inclusive

Figure 4.11 sketch conceptually illustrating inclusive and exclusive (Author, 2011).

Changing abandoned land use

This factor has probably been the most pervasive cause of lost space in our cities over the past few decades. The relocation of industry, obsolete transportation facilities, and vacated commercial or residential buildings have created vast areas of wasted or under used space within the downtown city centres." (Trancik, 1986: 17)

These areas offer potential for reclamation as mixed use areas, especially as the attitude toward living in the city is slowly changing and the cost of living outside of cities become more expensive.

Figure 4.11 shows how these spaces are redeveloped as inclusive elements (part of their surrounding context), they tend to encourage other inclusive adjacent developments to make spaces between buildings and street edges more dynamic, vibrant and robust.

Redesigning lost space

Peoples' impression of, and reaction to space is largely determined by the ways it is enclosed. "People like the feeling of a room (Trancik, 1986: 19)." People relate to outdoor open spaces the way they relate to spaces at home and in their workplaces.

This is probably why tourists and residents enjoy the structured urban rooms of Europe in cities such as Rome (fig 4.11 - 4.13), Venice, and Paris or the garden rooms of Ville Lante, Vaux-le-Vicomte, and Versailles. "In urban design the emphasis should be on the groups and sequences of outdoor rooms of the district as a whole, rather than on the individual space as an isolated entity" (Trancik, 1986: 19). Thus, special focus should be placed on residual space between districts and waste land at their edges. In this way, lost space can be reclaimed by transforming them into areas of opportunities for developments. By doing so, the space would improve and would subsequently attract people back to the centre.

Figure 4.12. Aerial photograph of the Piazza Novona, Rome, 2008 (www.italophiles.com,2011).

Conclusion

The history of cities indicate that if we can reverse the perception of exterior spaces and produce designs and figure grounds that take into consideration the relationship between building and open spaces, a lesson that can be learned from traditional, preindustrial cities is "that exterior space should be the force that gives definition to the architecture and its borders, establishing the walls of the outdoor room" (Trancik, 1986: 18). Perhaps we have to understand that "history" and "environment" are two faces of architecture - that no building stands alone, and that 'architectural solutions', however brilliant, can not overcome the limitations of the urban fabric in which they are placed (Huxtable, in Trancik, 1986: 19).

Figure 4.13. photograph of the Piazza Novona, Rome, 2008 (www.italophiles.com,2011).

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