

Chapter 3: SPATIAL VOCABULARY

3.1 Introduction

“What is needed is a framework which is just enough defined so that people naturally tend to stop there; and so that curiosity naturally takes people there, and invites them to stay.” (Alexander et al 1977:350). This chapter sets out to determine the vocabulary for spatial definition to create static physical containment within architectural and urban interiors. The elements for architectural interiors are used as a framework in order to determine whether the terminology can be used collectively for architectural and urban environments.

The elements used to achieve spatial definition, point, line, plane and volume, are used as the criteria for this investigation and are enhanced with discussions on ordering principles. The ordering principles that are integrated are: hierarchy, axis, symmetry, datum, repetition and transformation (Ching 1979:333).

The theoretical investigations are explained by means of visual illustration to clarify the interpretation of precedent analyses related to the discussion of a particular criterion. The chapter is concluded with an understanding of the strategic integration of the elements, principles and theories as collective criteria that make spatial definition possible.

3.2 Definition of space

The sources contributing to this explanation have been specifically selected to indicate the terminology used in a vocabulary to define space. Architectural and urban viewpoints are integrated to determine the congruencies in the selection of terms.

The strongest form of spatial definition is described by Ching (1979:168) as the enclosure of four vertical planes that create a field of space. An architectural interior consists of form and space where the boundaries are made possible through the defining structure that forms an enclosure. Ching (1979:14-15) lists the systems of

building elements for this definition as spatial, structural, enclosure and circulation. All of these bring an added quality to a room in terms of how it is used. The word 'plane' as defining term is supported by Von Meiss (1990:102): "The limit of the principal space is then defined by the edges of the walls which between them produce an implicit plane." Edge is added to the vocabulary for enclosure. In addition, Norberg-Schulz (1980:13) argues the link between interior and exterior spatial definition saying that floor, wall and ceiling are the components that constitute built space; similarly ground, horizon and sky are what makes space in the landscape. The structural basics are the same for the spatial definition.

The classic form of static outdoor space is identified as vertically enclosing surfaces that face inwards onto a central element: "...transparencies, overlappings, light modulation, perspective, surface gradients, closure, articulation, patterns of motion and sound..." make possible this definition (Lynch 1960:102, 103). The importance of vertical and horizontal organisation of planes is emphasised by Curran (1983:81) as devices to manipulate man-made and natural elements. Two types of spaces for definition are identified for the urban environment, linear and cluster. Successful urban spatial definition is compared to architectural qualities: "...like a room inside a building, the existence of cluster spaces absolutely relies on the defining surfaces, and when these are lacking or incomplete, the form loses its definition...the cluster does not take place" (Curran 1983:104). This argument strengthens the importance of creating spatial form.

Von Meiss (1990:97) relates spatial form to the shaping of volume and the connection of freestanding elements within this volume. Von Meiss continues by arguing that "there is no empty space; everything has its position, its location, its place...to create a hollow for this activity is to create the hollow in order to contain" (Von Meiss 1991:101). Spatial form within the urban environment is articulated by means of architectural mass. This spatial entity has a strong spatial containment and is said to create the quality of a "well composed room" or an "outdoor room" (Hedman & Jaszewski 1984:60, 71). It can also be pointed out that "...people like rooms. They relate to them daily in their homes and at work..." Trancik (1986:18-19) illustrates here that the way in which space is enclosed influences the reaction of the user. The exterior space formed by the architectural

boundaries is again compared to an interior entity, or an outdoor room in the structured urban framework. Landscaped spaces are delineated by means of the vertical plane and the vertical edge that is responsible for the spatial enclosure and the subsequent character of the space. Spatial definition is possible with both architectural and natural enclosures (Motloch 1991: 199, 206). "A boundary is not that at which something stops but...the boundary is that, from which something begins its presencing." (Norberg-Schulz 1980:13).

The investigation into the identification of terminology used to define space indicated similarities in the choice of words for architectural and urban interiors. This sets the platform in the search for further congruencies between the two environments.

3.3 Elements for spatial definition

The geometric elements for spatial definition of architectural interiors according to Ching (1979:19) are point, line, plane and volume and these are used as the structure for this investigation. The aim is to determine whether the vocabulary for urban spaces matches and if the terms can be used to describe the definition of space. The influence of organising principles identified by Ching (1979:333): axis, symmetry, hierarchy, rhythm and repetition, datum and transformation is integrated, together with the application of precedent analyses to support the theoretical data visually. The principles are visual devices to order interiors within a unified whole.

3.3.1 Point

Point, as defining element, has no length, width or depth and is used to mark a position in space. When placed in a visual field, a point creates a presence and changes spatial character (Ching 1979:20). This is evident on a two-dimensional plane, i.e. point represented on plan. However, when point is given height a linear element is created that visually attracts attention. Lynch (1990:48) lists landmarks as one of five elements of physical form for the urban environment. When positioned in a spatial field, visual orientation is made possible because of the focal point created in the space.

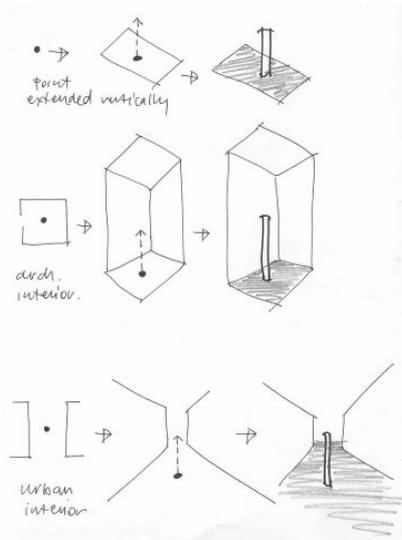


Fig 3-1: Point (architectural and urban) (Grobler 2005)

The tower of the Constitutional Court serves as a landmark that is illuminated at night, identifying the location of the new Court. The concept of orientation within a space is extended by the courtyard outside the Court that allows visitors to orientate themselves on the site; this is made possible with the distance of elements from another. Similarly, vertical articulation of point in Whiteinch Cross establishes a landmark in the city grid. A white tower with a blue vertical light defines the space.



Fig 3-2: Constitutional Court city landmark
(Constitutional Court 2004:84)



Fig 3-3: Constitutional Court landmarks
(Constitutional Court 2004:84)

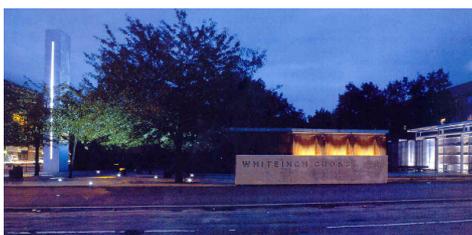


Fig 3-4: Whiteinch Cross tower (Holden 2003:67)

This concept is supported by Bell (1993:13) indicating that a point needs dimension to attract attention and to indicate territory, ownership or to serve as a landmark. The aim is to establish a point of focus and reference in an environment or spatial field whether it is interior space or landscape. Curran (1983:145) and Hedman & Jazsewski (1984:53) support the emphasis on freestanding elements and verticality that is used as focal point to visually organise spaces. Emphasis or hierarchy is created within an interior layout because of the contrast in the size, shape, placement or orientation relative to adjoining spaces (Ching 1979:333,350).

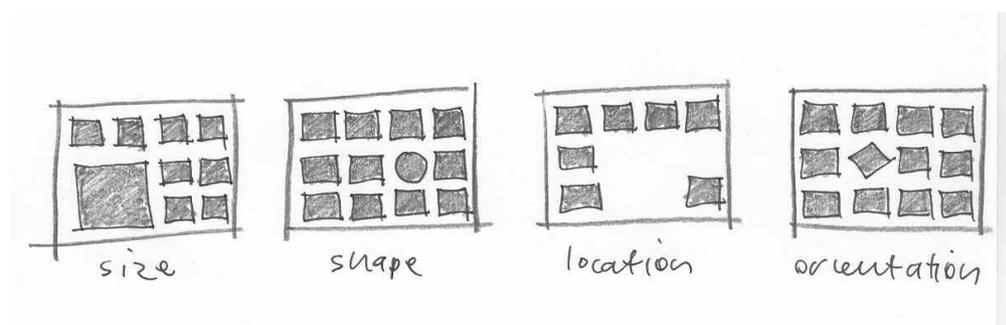


Fig 3-5: Emphasis and hierarchy

(Grobler 2005)

Similarly Behrens and Watson (1996:68-69) describe the advantage of a hierarchical system as organising structure in the layout and planning of urban areas. Nodes are created as gathering places or points in the urban environment connected with a network of circulation spaces. Open public spaces need to relate to a human scale in the definition of space. Lynch (1990:47) argues that nodes are strategic points that define a transition in space or movement due to crossing paths, but also the definition of the physical character of a place that allows for concentration and gathering.

The square at Melrose Arch serves as a node within the urban fabric. The building facades define the edges of the square that is centrally located. Restaurants spill into the square and strengthen the nodal function of human interaction and activity.



Fig 3-6: Melrose Arch (Krige 2002:23)

Dewar & Uytenbogaardt (1995:25) support the idea that various nodes are linked with circulation systems as points of reference and orientation.

Both the Constitutional Court and the Philippi public spaces are located on major traffic routes. The intensification of people creates strong interaction and forms spaces to gather. The Constitutional Court has the foyer located on this intersection that serves as an architectural interior for gathering and an urban counterpart in the courtyard adjoining it as an urban interior creating “...an accessible public open space at the centre of Constitution Hill that celebrated the right to gather...” (Makin & Masojada 2004:11). In addition, on an interior level, the Court foyer is positioned at the crossing of circulation routes from the exhibition steps and the entrance to the Court chamber. The foyer serves as a public space for interaction. The public squares of Melrose Arch and Philippi Lansdowne are located centrally to the developments that are connected with routes and serve the function of public interaction.

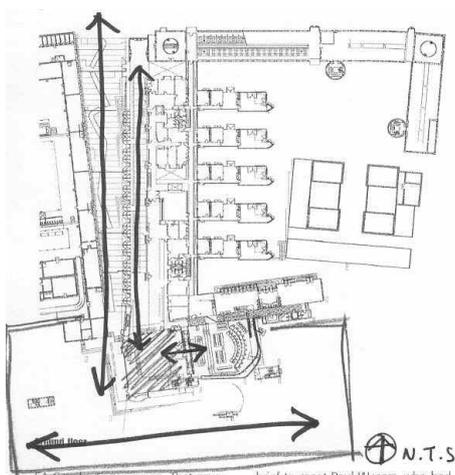


Fig 3-7: Constitutional Court nodes
Adapted from (Makin & Masojada 2004:10)

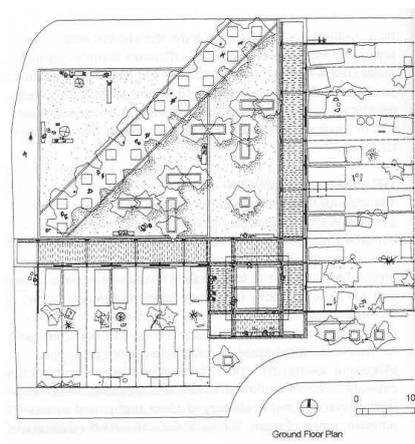


Fig 3-8: Philippi Lansdowne public space (n.t.s.)
(Philippi Lansdowne public spaces project 2003:58)

Point as abstract component is found in various scales according to Dewar & Uytenbogaardt (1995:23). One can thus say that both architectural, on an intimate scale, and urban spaces, on a large scale, allow for the formation of nodes as points to gather.

A point becomes an element when it is extended into a vertical linear element such as a column that mark points in space, but as soon as columns are positioned in a row, a line is implied that forms a spatial membrane (Ching & Binggeli 2005:3).

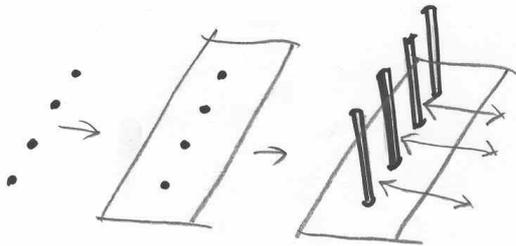


Fig 3-9: Point to line (Grobler 2005)

This is illustrated in the plan of the Garden Pavilion. The repetition of point reads as a line, and implies a plane when the points are vertically extended to function as columns.

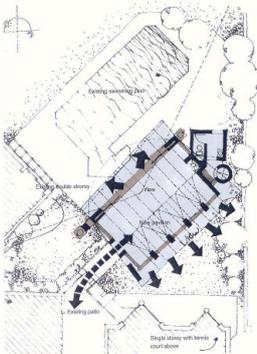


Fig 3-10: Garden Pavilion plan (not to scale)
(Garden Pavilion 2000:22)



Fig 3-11: Garden Pavilion verticality
(Garden Pavilion 2000:23)

Point, becoming line and transforming into plane, indicates the importance of the integration of the elements for spatial definition.

3.3.2 Line

According to Ching (1979:333,334), axis is the connecting line between two points or spaces about which elements and spaces are organised. Line, implied or physical, has to terminate at both ends for effective definition to create a balanced order. Similarly Trancik (1986:103, 97) indicates by means of the linkage theory that movement systems make clear the infrastructure of the urban environment with connecting lines that link elements and spaces. Streets, as linear elements or lines, become axes creating spatial order in urban interiors. Axis, as organising element, is used in conjunction with focal points, creating a link between different functional areas (Trancik 1986:157-158). The collective use of the word, axis, is observed to describe lines within interiors of both an architectural and an urban nature.

Circulation is related to linear channels of movement that are defined by edges or boundaries (Lynch 1960:47).

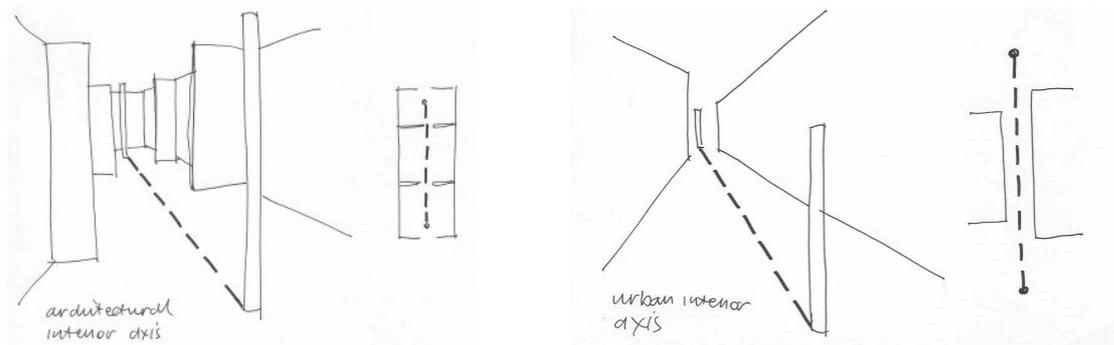


Fig 3-12: Axis and focal point (architectural and urban)

(Grobler 2005)

The major axes at the Constitutional Court are contained vertically for both architectural and urban interiors. The Great African Steps are defined by the boundaries of the Old Section Four and Five Prison and the new Court Building. The exhibition steps adjacent and parallel to the defining surfaces reflect the same material qualities, solid and transparent.

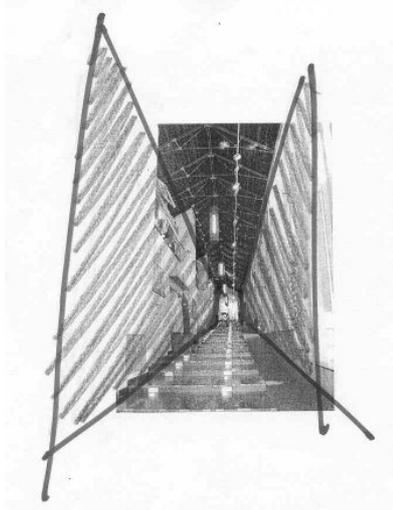


Fig 3-13: Constitutional Court – exhibition steps
Adapted from (Noble 2004:21)

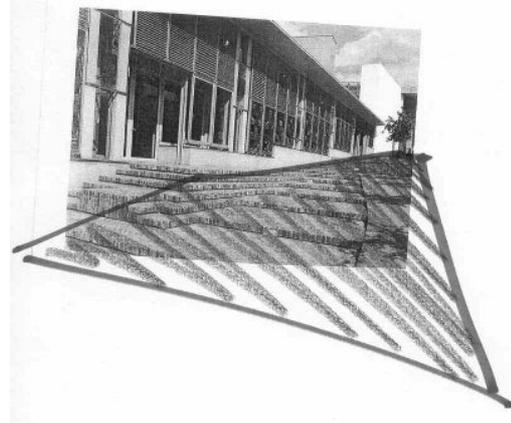


Fig 3-14: Constitutional Court – Great African Steps
Adapted from (Makin & Masojada 2004:11)

Dewar & Uytenbogaardt (1995:27) and Ching (1979:270) accentuate movement from point to point along an axis. The configuration of the path is determined by the adjacent spaces and intersections that provide an opportunity for choice and orientation. Curran (1983:151) describes the linear arrangement of elements as unifying in creating a sense of movement along an axis.

Edges are not only movement paths as Gehl (1987:151) explains the “edge effect”. The edges of spaces are occupied as zones for staying. People want to observe from the side and not be the centre of attention and therefore position themselves on the edge.

Paths in the landscape are represented by lines, while axis is created between two points. The paths of Sendero del Pinar de la Algaida gently direct one through the landscape. Line is defined by contrast in the edges, gravel and vegetation, bridge and railing. Line is further used to define space, as vertical posts are positioned in a row that creates a permeable boundary for seating that overlooks the lake. Again, point becomes line that defines a plane to create a space.



Fig 3-15: Sendero del Pinar de la Algaida
(Mostaedi [s.a.]:171)



Fig 3-16: Sendero del Pinar de la Algaida
(Mostaedi [s.a.]:171)



Fig 3-17: Sendero del Pinar de la Algaida
(Mostaedi [s.a.]:173)

Line, being one of the primary generators of form, is created when the properties of length, direction and position are added to a point (Ching 1979:19). On a physical level, contrast between the junction of various colours, textures and surface materials articulates lines (Bell 1993:16, 17) and (Curran 1983:140-141).

This is illustrated in the flooring solutions of the courtyard of the Constitutional Court, the covered pathways at the Philippi public spaces, as well as the Sculpture Gallery of Carlo Scarpa. Line as a device for delineation between different functional and circulation areas is applied strategically in every design. Line as edge is explored by Carlo Scarpa in the Castelvecchio in the same manner. The contrast in old and new indicates the relation between the new additions and the historic layers of the structure (Murphy 1990:15).

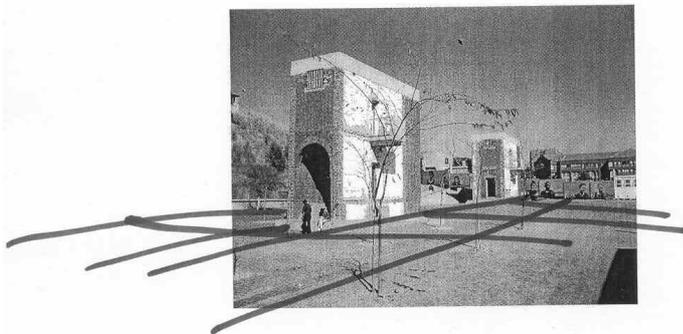


Fig 3-18: Constitutional Court – courtyard lines
Adapted from (Constitutional Court 2004:84)



Fig 3-19: Castelvecchio
(Los 2002:79)



Fig 3-20: Philippi Lansdowne public space
(Philippi Lansdowne public space project, Cape Town 2003:58)

Line further describes shape and articulates the boundaries of spatial form of volumes. A line is created by the repetition of columns and perceived as a boundary or line that defines an edge as would a solid plane (Von Meiss 1990:102).

The defined frame created by the structure at the Philippi Lansdowne public space consists of a linear structural system with the use of the column and beam. Edges and lines create vertical and horizontal articulation.



Fig 3-21: Philippi Lansdowne public space
(Philippi Lansdowne public space project, Cape Town 2003:58)

The grid that is established on plan allows for flexibility in the interior layout and distribution of elements and planes (Ching & Binggeli 2005:10, 11). This flexibility present opportunities for the community to freely appropriate the volume defined independent from the structure.

Level variation on surfaces creates additional defining lines (Hedman & Jaszewski 1984:79).

Level differences at Whiteinch Cross, steps and transition platforms at the Constitutional Court and levels in the Glass Shutter house illustrate the use of line in a three-dimensional application. Datum, as ordering principle, groups

together elements and spaces with edges and levels that outline the interior articulation.



Fig 3-22: Whiteinch Cross levels
(Spens 2003:195)



Fig 3-23: Glass Shutter House linearity
(Webb 2005:85)

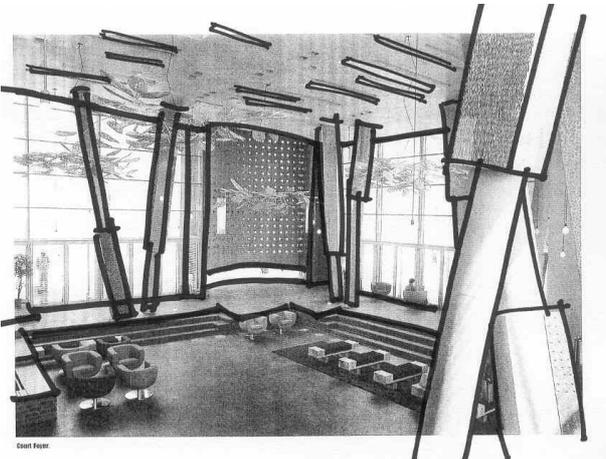


Fig 3-24: Constitutional Court foyer lines
Adapted from (Lipman 2004:17)

Line is used in the articulation of volume through the definition of planes and edges (Ching & Binggeli 2005:89).

The volume of the Garden Pavilion is defined by structural lines. Verticality is achieved by the structural elements that are repeated on the façade. In the interior, the space is modulated by diagonal lines that create spatial layers. A combination of diagonal, vertical and horizontal lines is composed in a harmonious volumetric composition.



Fig 3-25: Garden Pavilion lines (An architecture of discovery 2002:37)

The transformation of line as one-dimensional element can be extended in creating a two-dimensional plane.

3.3.3 Plane

“Planes in architecture define three-dimensional volumes of form and space.” (Ching 1979:35). The types of planes used to define interior space are classified as overhead plane, wall plane and base plane. The overhead plane is used to determine the volume of the interior space at ceiling level. The wall plane becomes the vertical boundaries of the room as enclosure and the base plane the floor level. Overhead planes in urban environments vary from open skies, canopies to trees. This definition provides shelter from the elements and gives a sense of “being under” and “...the overhead plane is the spatial ceiling...” (Mottloch 1991:183). Overhead definition strengthens the sense of enclosure in public open areas.

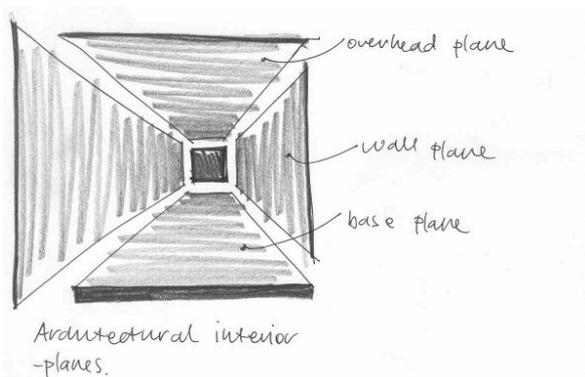


Fig 3-26: Architectural interior planes
(Grobler 2005)

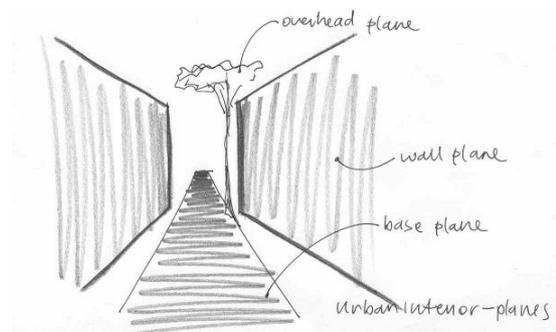


Fig 3-27: Urban interior planes
(Grobler 2005)

The degree of enclosure determines the quality of a space. The planes at the Constitutional Court foyer contain qualities of separation with solid boundaries to private spaces and connection with transparent edges to public areas. The overhead plane is punctured with linear slots; vertical planes vary in density and quality, transparent and solid and the base plane is depressed and as a result the seating area is defined.

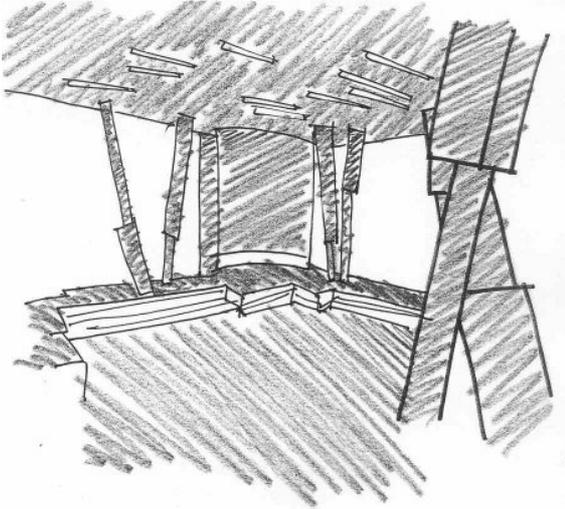


Fig 3-28: Constitutional Court
Adapted from (Lipman 2004:17)

The spatial edge encloses landscape space at eye level, terminates the sightline and determines the view and the form and size by means of the closure (Motloch 1991:185). In the urban environment building edges are seen as vertical planes of enclosure, emphasised by the ground and overhead plane, as well as the spatial edge. Motloch (1991:181) describes the ground plane as the spatial floor for functional purposes articulating datum without creating physical boundaries. The word 'plane' is used collectively for spaces of architectural and urban nature.

At Sendero del Pinar de la Algaida, the landscape is the base level that stretches through this natural environment. Planes are used to create an enclosure in the vast open landscape. Base plane, vertical and overhead planes are configured to contain a space for shelter. A place for contemplation is created that defines place.



Fig 3-29: Sendero del Pinar de la Algaída
(Mostaedi [s.a.]:175)

The interiors that have been identified for interpretation are all defined by planes that modulate the volumes. It is because of the nature of the defining plane that the interior character is achieved. Ching (1979:175) lists the properties of enclosure for architectural interiors as dimensions, shape, configuration, surface, edge and opening. These properties shape the nature of the definition, the treatment of planes, as well as the relationship between various surfaces that determine the spatial quality. Von Meiss (1990:107-108) argues that the nature of an enclosure is subject to the distribution of openings and the relation to surrounding spaces. A reduced sense of definition is maintained if the opening is greater in size than the wall surface that allows for a stronger link between adjacent spaces.

The Glass Shutter House demonstrates a reduced sense of definition in the use of transparent boundaries on planes facing public spaces, whether architectural or urban. The space is transformed because of the movable screens that have the capacity to enclose or reveal the spaces inside.



Fig 3-30: Glass Shutter House closed
(Webb 2005:82)



Fig 3-31: Glass Shutter House opened
(Webb 2005:83)

The planar structural system of a building, load bearing wall and horizontal slab, create structural enclosure for interior space, floor, wall and ceiling as the building envelope

(Ching & Binggeli 2005:12, 13). The design of interior spaces provides the opportunity for planes to be manipulated spatially, according to a desired aesthetic or function.

Urban spaces are defined by the adjoining building facades, like the urban spatial definition at Melrose Arch.



Fig 3-32: Melrose Arch building facades (Krige 2002:27)

Line groups elements or spaces together along the length of the line, plane defines the elements and spaces above, below or against, and volume articulates elements or areas within the three-dimensional frame of the boundaries as datum applied as an ordering device (Ching 1979:358, 359).

Independent planes and structures have the capacity to define spaces within a volumetric field. The freestanding walls at Whiteinch Cross define an urban room between the compositions of planes. The spatial edge is articulated by vertical planes, the ground by a level difference and a steel frame defines the overhead plane. The planes are independent from a building and imply a place because of the spatial arrangement.



Fig 3-33: Whiteinch Cross planes
(Holden 2003:70)



Fig 3-34: Whiteinch Cross spatial arrangement
(Spens 2003:195)

Spaces at Whiteinch Cross are grouped together with the use of lines and planes. The boundary edge of the site defines the ground plane which is divided into two levels. Vertical planes, walls, steel frame and tower imply a volume between that articulates the space. The varying heights of verticality create interest and the observation of the place.

Areas and elements are grouped together under the overhead plane or onto the base plane (Ching 1979:359).

The raised platforms at the sculpture gallery of the Castelvecchio group objects together for display, or are enhanced by being isolated to create emphasis. The height of each display is determined by the size of the object.



Fig 3-35: Castelvecchio platforms (Los 2002:79)

Spatial reference is provided through the application of visual continuity and regularity in size and closure of the volume.

3.3.4 Volume

The combination of planes, vertical and horizontal, defines volume that provides the added properties of length, width and depth in the creation of space (Ching 1979:19). The volumetric structural system constitutes three-dimensional mass that encloses the interior void that is defined by lines and planes (Ching & Binggeli 2005:14).

Building forms in the urban environment define spaces such as squares, piazzas and markets by the adjoining building facades with vertical boundaries that make possible the enclosure (Ching 1979:38, 47). Urban cluster spaces provide areas for social interaction. Curran (1983:103) argues that the room is the basic containing space and

further, Trancik (1986:100) "...in order to achieve form on the exterior, the perimeter of spaces and blocks must be well articulated to establish outdoor rooms containing corners, niches, pockets and corridors." Public urban spaces (voids) are identified as place when integrated with solids (built form). Positive voids are created when these voids add meaning to the environment as gathering places, paths of transition and platforms for interaction. These add value to the experience of the city in the clarity in layout and configuration of city blocks (Trancik 1986:100).

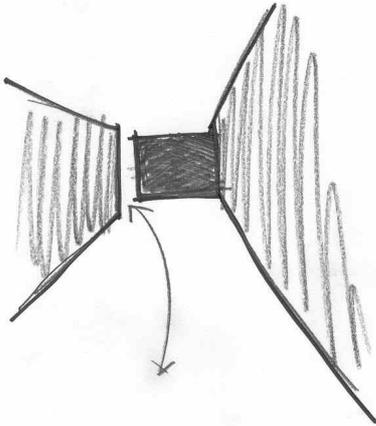


Fig 3-36: Urban spatial definition (Grobler 2005)

The square at Melrose Arch is articulate and contained by the building facades that are positioned on the building lines. These edges define the solid built form that contains the urban void.

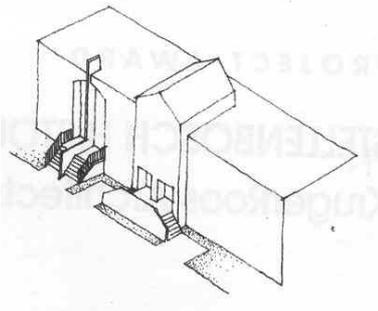


Fig 3-37: Melrose Arch edge (Melrose Arch 1999:31)

Trancik (1986:97) explains that the figure-ground theory is the pattern of solids and voids in the urban environment that aims to establish order, creating points of hierarchy. Centralisation, direction, rhythm and proximity are listed as properties of space and elements in the Gestalt theory that deals with positive and negative, or solid and void.

General guidelines here are proximity, continuity and closure, creating relationships and patterns (Curran 1983:67).

Streets as urban space are described as follows: "...for the street is not an area, but a volume..." (Rudofsky 1969:20). Streets are defined as harmonious spaces of continuity and rhythm. Urban spaces are the left over areas between buildings and are shaped accordingly by walls, fences, building facades, colonnades and trees (Curran 1983:105,106).

Areas are defined as functional volumes by the placement of objects and elements. Furniture in interior space delineates various areas, creating a sense of enclosure; spatial patterns are defined and movement patterns indicated. The function of the room dictates the organisation and use through the required activity, communication and movement (Ching & Binggeli 2005:16, 17). Curran (1983:145) supports this stating that "in our public spaces, the elements we provide, like the furnishing inside rooms, are critical in our use of them." This is explained further indicating the importance of the functional and symbolic effects of furnishings in the organisation and subdivision of spaces, as well as supporting the specific activities that need to be performed. Dewar & Uytenbogaardt (1995:41) echo this, arguing that grids allow for the placement of elements and activities within a network or structure.

The placement of furniture in the Constitutional Court foyer demarcates seating from circulation. The grid systems at the Philippi public projects provide a structure for the community to organise.

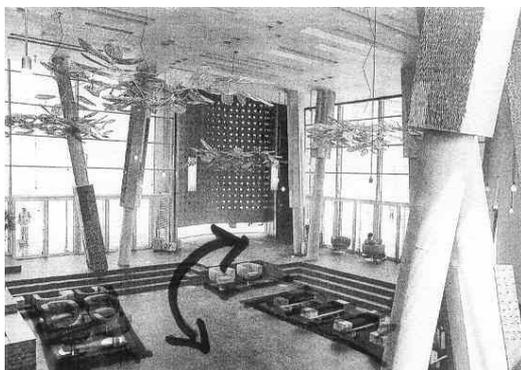


Fig 3-38: Constitutional Court foyer seating
Adapted from (Lipman 2004:17)

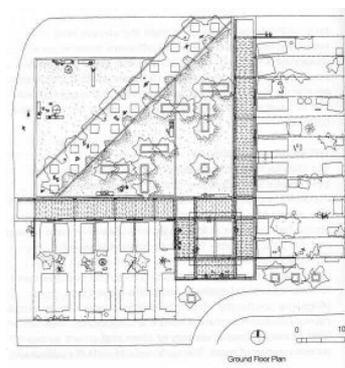


Fig 3-39: Philippi Lansdowne public space grid
(Philippi Lansdowne public space project, Cape Town 2003:58)

The grid as structuring element is useful in the layout and organisation in urban design that is flexible in the form and orientation determined by the location and context (Dewar & Uytenbogaardt 1995:37-38).

With the grid extended, a linear structural system defines the edges of the spatial enclosure at the Philippi Lansdowne public place. Similarly, the structural system of the Glass Shutter House defines the volume. A combination of vertical linear and horizontal planar elements is composed into a functional space. The planes of the Garden Pavilion, diagonal, horizontal and vertical define a dynamic space, with the angle of the roof visible to the interior. Integration between solid and void is achieved with the application of materials that separate or link areas. Repetition, rhythm and order are used to compose the architectural skin.

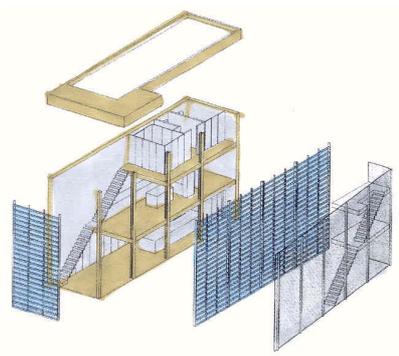


Fig 3-40: Glass Shutter House volume
(Webb 2005:84)



Fig 3-41: Garden Pavilion volume
(An Architecture of discovery 2002:37)

Grids further function as datum as the reference points and lines that are provided in a space. Elements can be positioned or spatially located in the field of reference according to the network of points and lines. These spaces are all nodal due to the central location and thus attract people.

Volume as spatial entity is used to describe architectural and urban interiors, within the static, physical model of space.

3.4 Holistic approach to spatial definition

A holistic approach to spatial definition includes the strategic relation between the collective elements for spatial definition: point, line, plane and volume and "...outdoor rooms" are created in urban environments where "spaces are clearly defined and have a sense of enclosure." Dewar & Uytendogaardt (1995:18-19) indicate here the importance of articulation on an urban level, the human need for enclosure. The vocabulary indicates the collective use of terminology to define the interior or room. The emphasis in urban spaces is "...to be on groups and sequence of outdoor rooms as a whole and not individual space as isolated identity." (Trancik 1986:19). The establishing of a spatial framework is to create a unity in the elements and principles of spatial definition and organisation. The integration of enclosure and placement of objects are integrated in this common vocabulary for both architectural and urban interiors.

Curran (1983:140) explains the necessity of a holistic approach when it comes to built and spatial forms: the expressive and supportive qualities need to be considered in conjunction with the defining surfaces, including the overall use of the space, the location and movement patterns. All these are interrelated in the design of architectural and urban interiors. The holistic approach is inclusive, taking into consideration functional and circulatory requirements, from layout, furnishing and space defining elements and principles.

3.5 Summary

Chapter 3, Spatial Vocabulary, set out to determine a collective vocabulary used to define space on an architectural and urban level. The elements and principles of spatial definition and organisation of spaces proved to serve as tools or devices in spatial articulation for the respective interior types. The compatibility of words made easy the integration within a unified framework for investigation.

The investigation illustrated that people require a spatial enclosure to inhabit. This is not only based on the fact that all need shelter, but the argument that spatial definition enriches experiences. Spatial delineation identifies places and spaces of importance, to

gather, to move and find our way. It defines a space that allows for appropriation and use within the needs and requirements of the user and the function.

3.6 Conclusion

Spatial form that defines enclosure makes possible the habitation of architectural and urban interiors that are comfortable for people to appropriate. The layout and organisation of interiors provide structure and order to the functioning and spatial experience. This investigation illustrated the relation between interior vocabulary on an architectural and urban level. The fact that the integration was possible strengthens the compatibility of data to support a collective use of vocabulary. It is possible to apply point, line, plane and volume to architectural and urban interiors related to the specific function and context of the place. The factor that changes the application of these elements and principles is the scale of the environments that will determine the nature and quality of the space as the precedents illustrated. The use of a holistic design approach with the use of collective criteria is important in the creation of meaningful spatial definition.

The surfaces of defining planes provide opportunities for modulation with the application of variables that have the capacity to influence and create a sense of place. The investigation hence aims to determine whether the inclusion of variables that can enrich a space can be used in the furnishing of meaningful place.