

# Criteria for spatial definition: architectural and urban interiors of the Constitutional Court, Johannesburg

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This article investigates the elements and principles that can be used as criteria to define the static, physical model of space in the built environment. The aim is to determine congruencies between the terminology for spatial definition within architectural and urban spaces. The vocabulary used to describe and analyse architectural interiors is identified as a spatial framework. The aim of the article is to discover whether a collective application is possible for both architectural and urban spaces, as urban interiors. The terminology is evaluated by analysing the public spaces of the Constitutional Court, Johannesburg.

## **Die kriteria vir ruimtelike definisie: argitektoniese en stedelike interieurs van die Konstitusionele Hof, Johannesburg**

In hierdie artikel word die elemente en beginsels wat gebruik kan word as kriteria om die statiese, fisiese model van ruimtes te definieer, ondersoek. Die doelwit is om ooreenkomste in die gebruik van terminologie te bepaal vir argitektoniese en stedelike ruimtes. Die woordeskat vir die beskrywing en analise van argitektoniese interieurs vorm die besprekingsraamwerk om te bepaal of die terminologie kollektief toegepas kan word vir beide argitektoniese interieurs en stedelike ruimtes, om sodoende 'stedelike interieurs' genoem te kan word. Die terminologie word geëvalueer deur die publieke ruimtes van die Konstitusionele Hof in Johannesburg te analiseer.

**T**raditionally, interiors are associated with rooms as spaces inside buildings. Spaces for human habitation and interaction are found throughout the built environment and include urban space. Space becomes place as a result of social practices and Lefebvre (1991: 31) argues that this process allows for 'space' to become 'place'. The appropriation of space provides personal meaning to the spatial experience of the user.

Various factors influence the nature of spatial definition that adds value to this experience. Soja<sup>1</sup> (1996:71) lists three aspects of importance for the creation of place: spatiality, sociality and historicity. This trialectic model illustrates the context of the components of space and also the relation between it. These components are all directly related to another, ensuring an integrated model for space production.

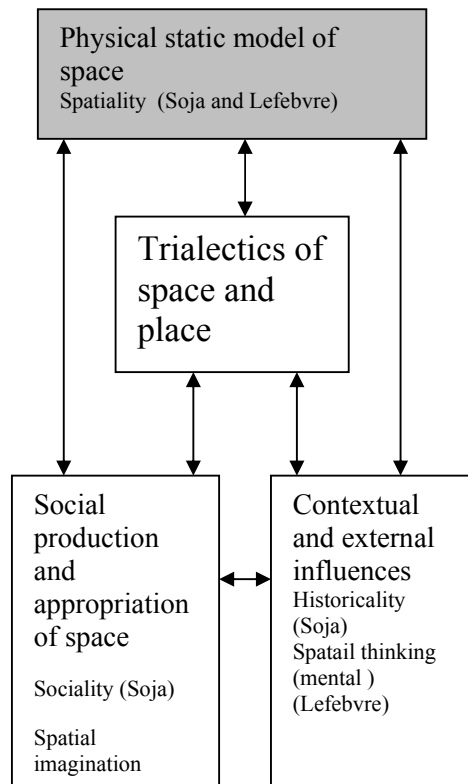
The following diagram, Figure a, illustrates the components of the trialectic context of space and highlights the direction and approach of this investigation.

Spatiality is the static, physical enclosure that is further defined by the influence of social practices, sociality, and also the contextual surrounding, as historicity. Lefebvre (1991:8) adds to the various external influences:

“geographical, economic, demographic, sociological, ecological, political, commercial, national, continental and global influences...”.

The static, physical model of space with formal characteristics (spatiality) is isolated as the focus of the investigation. The motivation for this approach is to firstly understand the physical components that can be utilised to define space, and then in a later investigation, focus on the external factors that complete the trialectic context. This exploration must be

read in the context of the aim of the article and not in isolation. The trialectic relation remains the pivotal aspect in the search for aspects related to spatial production.



**Figure a**  
**Trialectic context**

This method provides the opportunity to analyse the elements that can be applied to define space, within both architectural and urban environments. The aim is to determine whether the terminology that forms the criteria for spatial definition can be applied collectively for both architectural and urban space. Can urban space, because of this investigation be referred to as ‘urban interior’?

Meaningful spatial definition adds value to a person’s life; the nature of the definition and external influences determine the sense of enclosure. Low and Lawrence-Zúñiga (2003:13) argue:

“people form meaningful relationships with the locales they occupy, how they attach meaning to space and transform ‘space’ into ‘place’...”.

Place and non-place is terminology that contains spatial dimensions and spatial manifestations. Place is defined as “relational, historical, and concerned with identity” (Augé 1995:77-78). Therefore, meaningful space incorporates various aspects that add meaning to the individual or group occupying it.

The Constitutional Court<sup>2</sup> at Constitution Hill<sup>3</sup>, designed by OMM Design Workshop and Urban Solutions<sup>4</sup>, has both urban and architectural spaces that form the basis for the interpretation of this investigation. The design is rooted in the country and its people and addresses the regional character in terms of material use, and functional relationships, as well

as acknowledging the history of the city with symbolism integrated into the spatial design (Lipman 2004:16-17). The buildings and site are freely accessible to the public and “celebrate the right to gather” (Makin and Masojada 2004:11).

The analysis of the public architectural interiors, court foyer and exhibition steps, and urban interiors, Great African Steps and courtyard, are explored in an integrated investigation: theoretical vocabulary, visual observation and literature study, to determine possible criteria for spatial definition.

### **Spatial definition**

Spatial definition suggests a degree of enclosure or containment. An interior consists of form and space when boundaries are made possible through structure and enclosure. Ching (1979:168), Von Meiss (1990:102) and Norberg-Schulz (1980:13) argue that vertical and horizontal planes become the edges or boundaries of enclosure. Alexander, Ishikawa & Silverstein (1977:350) state:

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.

Porter (1997:26) argues in *The architect's eye*, that the relation between the surface skin of the structure and the void it encloses is equally important for spatial containment. Interiors, as spaces inside buildings, i.e. rooms, are found throughout the human environment. Trancik (1986:18-19) supports this in *Lost space*: “...people like rooms. They relate to them daily in their homes and at work.” The architectural boundaries thus determine the way urban spaces are enclosed. Hedman & Jaszewski (1984:71) compare this definition to that of an urban space or a “well composed room” or an “outdoor room”.

The spatial vocabulary in spatial articulation consists of four elements: point, line, plane and volume. Ching & Bingelli (2005:3) and Krier (1988:43) mention these as geometric elements that can be manipulated to physically arrange interiors to create spatial composition. With the use of ordering principles as visual devices, elements are organised to create structured and legible space that becomes meaningful to the user: axis, symmetry, hierarchy, rhythm and repetition, datum and transformation (Ching 1979:332). The success of the spatial definition is dependant on the physical articulation and enclosure of an area.

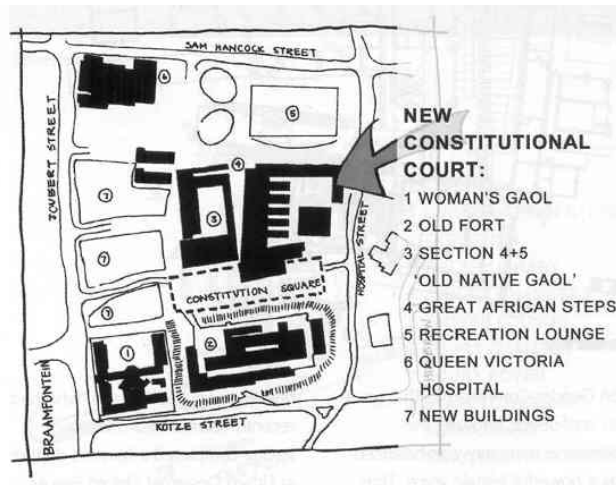
### **The Constitutional Court Design approach and concept**

In order to understand the physical spatial containment of the Constitutional Court it is crucial that the design concept and approach be understood. The design approach was fed by ideas of heritage, dignity, a better future and the “essence of what it means to be alive and human” (Makin & Masojada 2004:9). The building represents the values of a South African democratic constitution, without ethnic or colonial references. The Court building has been placed on the crossing of the two major routes across the site; north-south and east-west. The Awaiting Trial Block has been demolished to make way for the new Court building and from an urban design point of view; the site is once again integrated with the city grid. The symbolism in this location is to open the once confined space to

create an accessible public open space at the centre of Constitution Hill that celebrated the right to gather... (Makin & Masojada 2004:11).

The building consists of four components: the Court Foyer and chamber, the library and administration, the Exhibition Stairs and the judges’ chambers.

...housed elements, which might attract communal activity – those, like the Court Foyer and long Exhibition Stairs that call for general access – on the edges of the paths and other open spaces, specifically, the Great African Steps (Lipman 2004:18)-

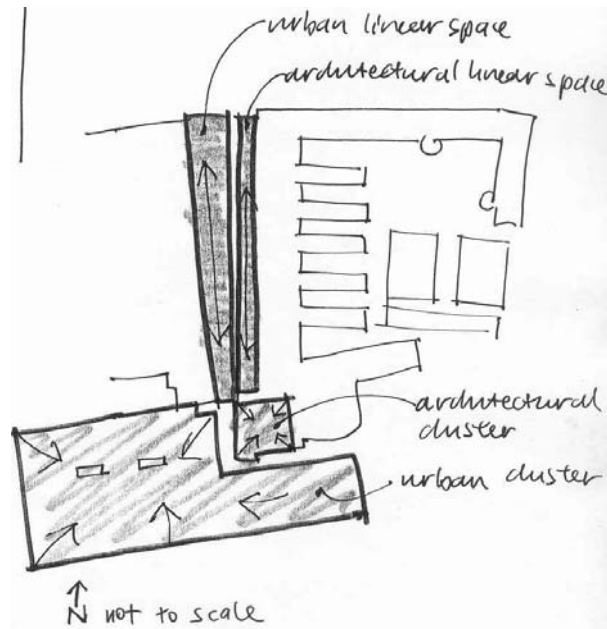


**Figure 1**  
**Constitutional Court location**

The concept of a tree as symbol for communal gathering has been utilised in the foyer with slanting columns representing trees. In old African cultures elders meet beneath trees to discuss important matters (Noble 2004:20). This concept of gathering has been applied to the design in both internal and external spaces in providing opportunities to have contact with others.

### **Spatial vocabulary**

The spaces identified for this discussion demonstrate similarities in the nature and use, and definition strategies. Two types of spaces are identified: linear and cluster (Curran 1983:70). The Great African Steps and the exhibition steps are linear and the foyer and courtyard are clustered.



**Figure 2**  
**Cluster and linear spaces**

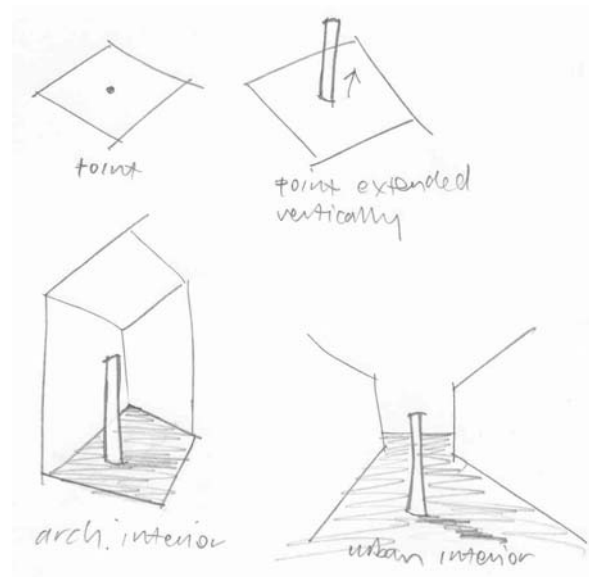
The elements for spatial definition, point, line, plane and volume are discussed in order to define spaces for this investigation. Ordering principles are integrated into the analyses.

## Point

The principle of emphasis or hierarchy is important for interiors and allows for spaces to be organised with significant elements or special features as focal points. According to Ching (1979:20) a point has no length or width and is used to mark a position in a space. When it is placed within a visual field, a presence is created that influences the character of a space.

Makin & Masojada (2004:12) explain that the Court foyer and chamber are situated on the site as the primary focus. This is made possible by the location on the intersection of two circulation axes of the Court buildings. The foyer becomes a reference point for orientation and as a result, a node (clustered space) space is created.

The foyer and the courtyard just outside can then be described and architectural and urban nodes.



**Figure 3**  
**Point extended**

Von Meiss (1990:97) describes the creation of space as the relationship between freestanding elements and the shaping volume, and continues to say 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.

The layout and positioning of the Constitutional Court courtyard, allows for the establishment of a point or node with the remainder of the Awaiting Trial block that becomes a landmark in terms of the Constitution Hill site. Lynch (1969:47) mentions landmarks as one of five elements of physical forms in the urban environment that function as a point of reference in the city, that is positioned in isolation within a spatial field. It requires visibility to provide visual orientation as a reference and becomes a focal point, together with the tower that is the landmark in terms of the city.



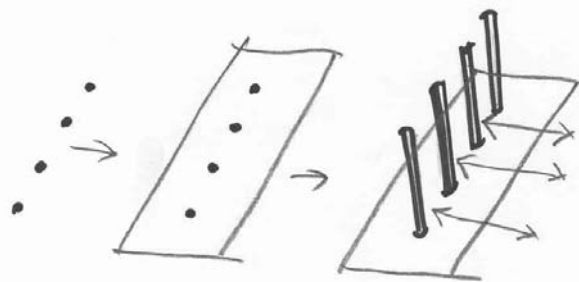
**Figure 4**  
**Nodes and landmarks**

Behrens and Watson (1996:68-69) describe the advantage of a hierarchical system as organising structure in the layout and planning of urban areas. Visual emphasis is given to elements of significance, either by means of position, orientation, size, shape, and contrast in value, texture or colour. (Ching 2005:16, 145). Nodes are created as gathering places or points in the urban fabric. Krier (1979:15) defines urban space as: "...space (that is) geometrically bounded by a variety of elevations." Due to the nodal quality of the Court courtyard, an urban space is created.

The Court foyer and courtyard are points of hierarchy that determine the layout of the new adjacent buildings as these are located on the two major axes that intersect the site.

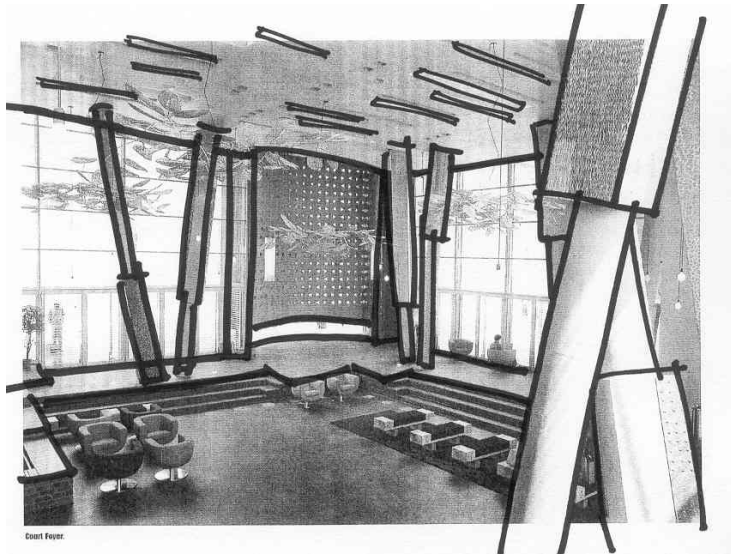
### **Line**

When a point is extended with the addition of the properties of length, direction and position, line, one of the primary generators of form is created (Ching 1979:19).



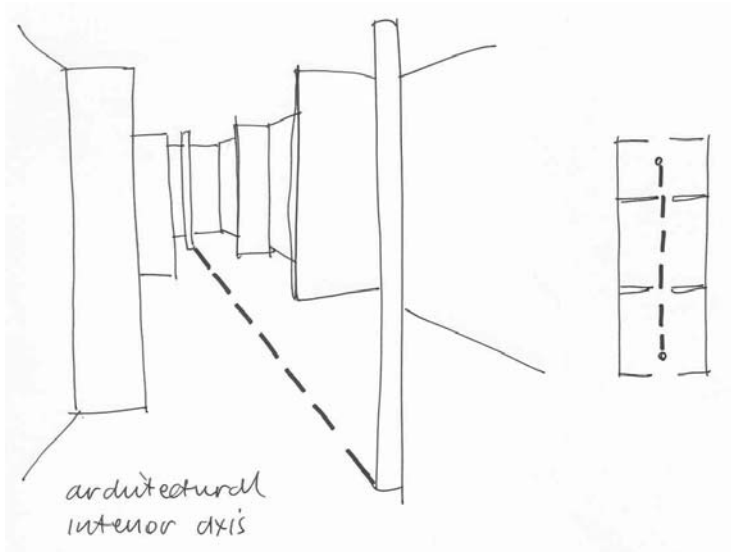
**Figure 5**  
**Point to line**

Columns are the main linear structural system in the Court construction. Vertical articulation in this case, a slanted diagonal modulation, creates a second layer of spatial articulation with the positioning of columns that read as point on plan and line volumetrically, as the space is shaped. These elements reach up to the ceiling plane overhead to visually extend the volumetric quality as the eye moves with the direction of the columns.



**Figure 6**  
**Linear elements in Court foyer**

The Great African Steps and the exhibition steps are the two major linear spaces of the Constitutional Court. Both are axes linking spaces from end to end as ordering devices. The linear quality creates edges along which the movement of the path is accentuated (Ching 1979:334).

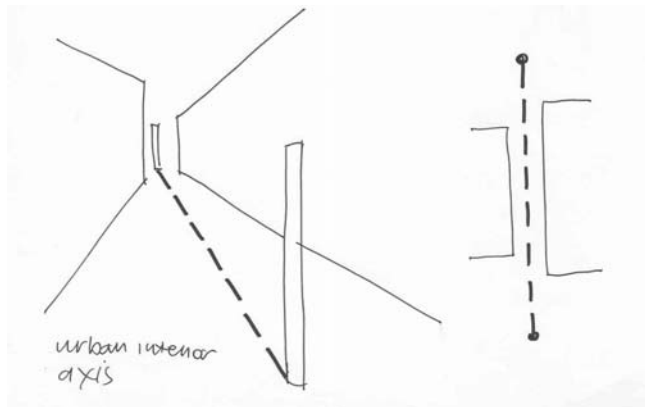


**Figure 7**  
**Architectural interior axis**

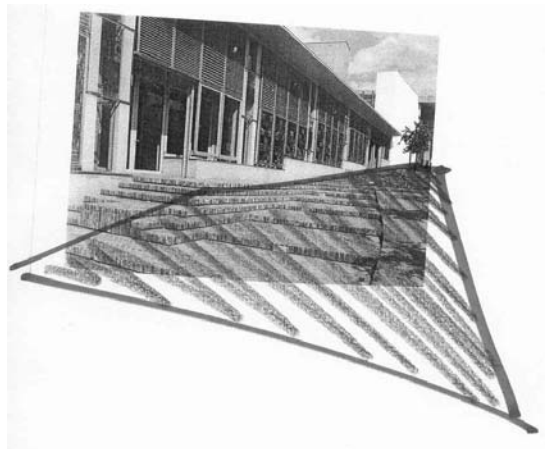
Lynch (1960:47) supports this idea and describes paths and edges as linear elements in the urban environment; channels for movement and circulation that are found between areas and elements in the city. Corridors and streets are linear movement spaces that allow for a system of visual orientation with the use of axes creating spatial order in urban interiors. Functional areas as focal points are linked at the termination of the axes (Trancik 1986:157-158). Krier (1979:17, 20) argues that a street has a pronounced function for circulation and recreation.



**Figure 8**  
**Exhibition steps as axis**



**Figure 9**  
**Urban interior axis**

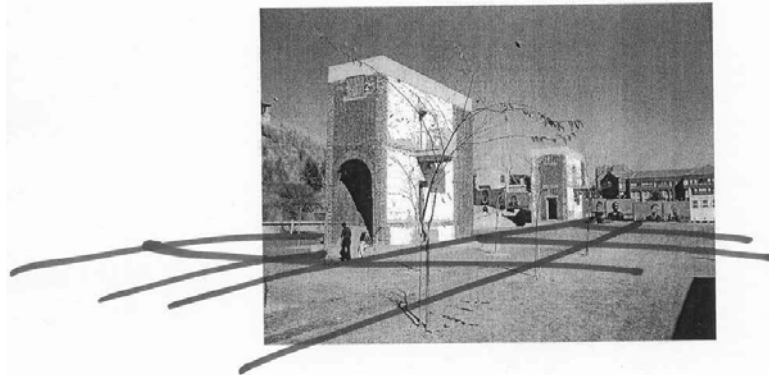


**Figure 10**  
**Great African Steps as axis**



In this way the Great African Steps link the courtyard and proposed sports facilities, and the exhibition steps link the library and foyer. In both cases, the axes terminate within an adjacent space that is well-defined.

The Great African Steps and the exhibition steps are articulated with level variations due to the raise in the circulation path. Different levels are created in the layout of the stairs that establish various platforms, especially in the urban space. Level variation on surfaces creates additional defining lines (Hedman & Jaszewski 1984:79), as well as contrast between the junction of various colours and textures.



**Figure 11**  
**Surface defining lines**

This idea is further explained by Curran (1983:140) in *Architecture and the urban experience*, as the creation of various areas utilising different materials in surface articulation as a device of delineation. The public spaces for discussion here all utilise this principle for delineation. Various functions are indicated by this definition, demarcating activity spaces from circulation spaces.



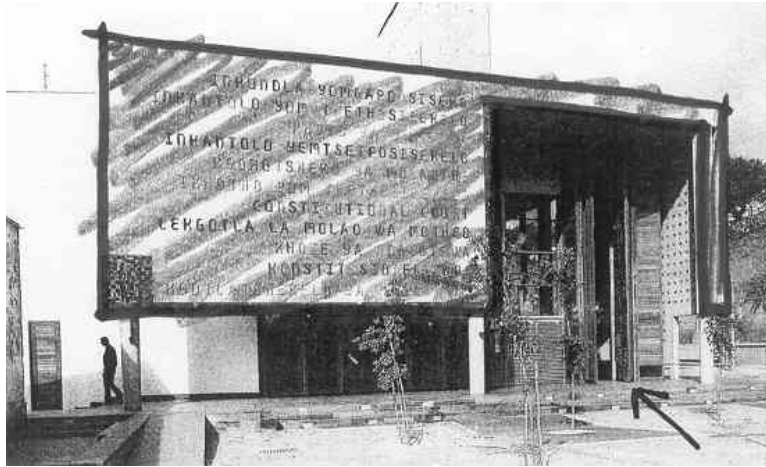
**Figure 12**  
**Delineation of court foyer**

## **Plane**

“Planes in architecture define three-dimensional volumes of form and space” (Ching 1979:35). The plane types used to define architectural interiors of the Court are classified as overhead, wall 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. The foyer has specific physical attributes associated with each plane.

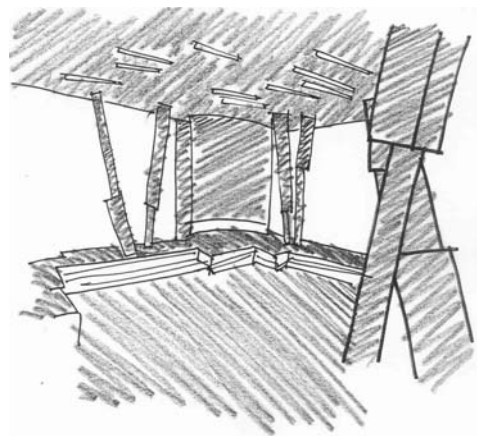
The entrance wall is marked with tall, slender timber doors that identify the transition between the inside and outside. The façade is articulated with a composition of solid and transparent surfaces. The solid boundary frames the entrance to the foyer.



**Figure 13**  
**Entrance façade**

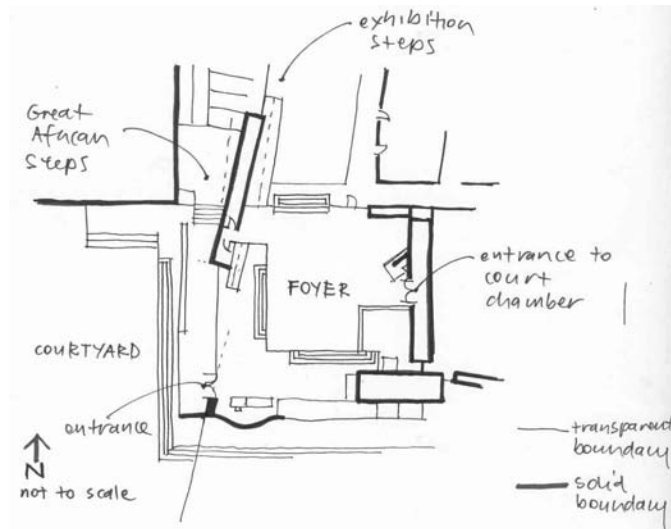
This entrance level continues into the foyer space and serves as a platform to orientate and pause before continuing circulation. A change in ground level articulates the different planes in a transition space that steps down to an informal seating area in the foyer. The cluster configuration of furniture delineates seating areas forming circulation and movement paths.

Ching refers to datum as a line, plane or volume that groups other elements in composition. Reference is provided through the visual continuity and regularity in size and closure to serve as an ordering device. Line can be used to group elements or spaces together, plane defines the elements and spaces above, below or against and volume articulates elements or areas within the three-dimensional frame of the boundaries (Ching 1979:358, 359). Areas and elements are grouped together under the overhead plane, against the vertical, or onto the base plane. The spaces and elements of the Constitutional Court are connected and grouped in the same way.



**Figure 14**  
**Court foyer planes**

The vertical enclosing planes of the foyer define the volume of 9m high. To the north and east, solid boundaries define the edge between the foyer and other adjacent functions, i.e. the Court chamber and the exhibition area.



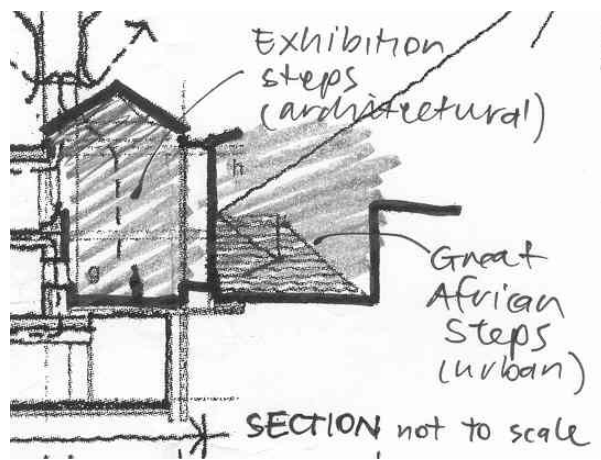
**Figure 15**  
**Court foyer defining planes**

Clerestory windows on the northern wall form a delicate transition between wall and ceiling plane. Transparent surfaces to the south and west create a visual link between the architectural and urban interior - the courtyard. The overhead plane is punctured with linear skylights that add to the surface articulation.



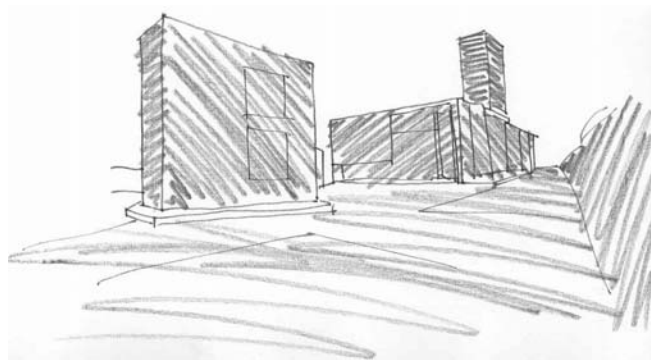
**Figure 16 & 17**  
**Clerestory windows**

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” (Motloch 1991:183). The urban spaces at the Court have the sky as overhead plane, however the vertical planes imply a line overhead as the Great African Steps are contained with a strong vertical enclosure.



**Figure 18**  
**Vertical enclosure**

The spatial edge encloses landscape space at eye level, terminates the sightline and determines the view, the form of the space shaped and the size of the closure (Motloch 1991:185). In the urban environment, building edges are seen as vertical planes of enclosure, emphasized by the ground and overhead plane articulating the spatial edge. The courtyard has the defining edge of the fort mound to the south. Overhead definition strengthens the sense of enclosure in public open areas. Motloch (1991:183) emphasises: “The overhead plane is the spatial ceiling.” In this instance, the sky above becomes the overhead plane, because of the absence of a physical structure.



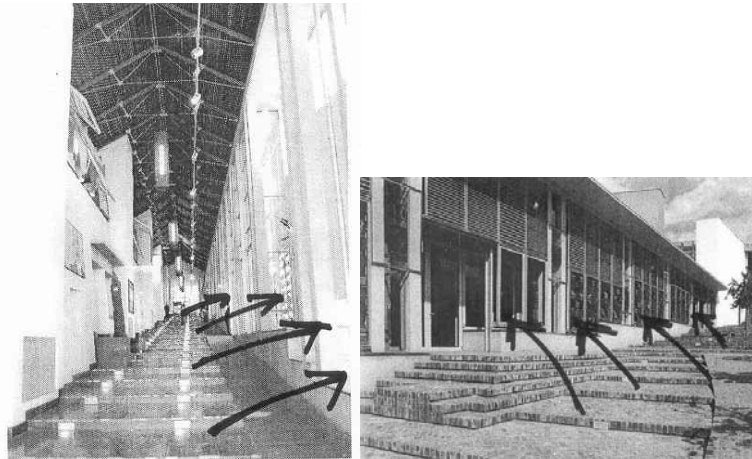
**Figure 19**  
**Courtyard planes**

Ching (1979:175) lists the properties of enclosure shaping the nature of the articulation for architectural interiors as dimension, shape, configuration, surface, edge and openings. The treatment of planes, as well as the relationship between various surfaces will determine the spatial quality.

The degree of enclosure is subject to the distribution of openings and the relation to surrounding spaces. Planes have a reduced sense of definition when the opening size exceeds the wall surface (Von Meiss 1990:107). The transparent planes of the foyer and exhibition steps allow for a visual connection with the courtyard and Great African Steps respectively. The degree of separation, connection and transparency is thus related to the nature of the surface articulation and distribution of openings.

Openings between articulated areas are defined as “visual leaks” where the “eye is allowed to move out of the space” (Curran 1983:104). Vistas are established in this regard and allows for visual links between architectural and urban spaces.

The size, shape and location of openings or voids affect the sense of enclosure of a room and have an influence on the degree of enclosure. The amount of light emitted into a space, as well as the vista onto which the view is focused is also affected. The transparent edges of the exhibition steps and the foyer allow for a continuous connection with the Great African Steps and the courtyard respectively.



**Figure 20 & 21**  
**Visual connection inside and outside**

Ching (1979:176, 178) argues that windows establish the visual relation between interior and exterior spaces. The degree of enclosure is determined by the configurations that define the space. The pattern and placement of openings determine the spatial quality of the experience. The emphasis is not on the enclosing planes, but may extend beyond the boundaries of the volumetric containment.

### **Volume**

The volumetric structural system constitutes three-dimensional mass with the added properties of length, width, and depth. Mass (structure) encloses the interior void that is defined by the linear, planar and volumetric structural systems (Ching 2005: 14, 19). The architectural and urban volumes are articulated with points, lines and planes.

Areas are defined as functional volumes by the placement of objects and elements. Furniture in the foyer delineates functional areas as nodes or clusters from circulation areas. The function of the space dictates the spatial organisation of interior elements. Curran (1983:143) argues that

in our public spaces, the elements we provide, like the furnishing inside rooms, are critical in our use of them.

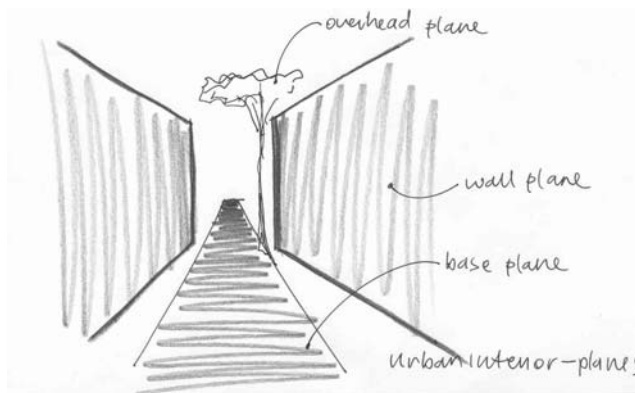
In addition Ching (1979: 176, 178) points out that this placement of elements are related to the positioning of openings on the enclosing planes. The degree of enclosure is directly related to the natural illumination and views onto adjacent spaces. The patterns of use and circulation, as dynamic activities, further affect the placement of interior elements. The path-space relation influences the nature of the use. This is emphasised by the proximity of activities within spatial enclosures (Ching 1979: 282, 195).

The vast volume of the foyer addresses the public function, as large numbers of people can be accommodated. However, the scale of the space is reduced with the suspension of large wirework light fittings that resemble plant forms. Again, a second layer in the spatial definition is established, that allows for the perception of depth beyond to the ceiling.



**Figure 22**  
**Court foyer volume**

Cluster spaces in the urban environment provide areas for social interaction. Curran (1983:103) argues that the room is the basic containing space for human habitation. 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). The courtyard as a clustered volume and the Great African Steps as linear volume are defined by enclosing walls. Streets (Great African steps) as urban space are described: "...for the street is not an area, but a volume..." (Rudofsky 1969:20). Volume, as space defining element, acts as datum for the enclosed spaces that are grouped together.



**Figure 23**  
**Urban interior volume**

The long, linear shapes of the Great African Steps and the exhibition steps run parallel. Both spaces are linked with a centralised square, the foyer and courtyard respectively. The shape of the defining elements: planes, openings and silhouettes make visible the edge contour of the planes defining the volume (Ching 1979:52).

Point, line and plane organised within a spatial composition, define volumetric containment for human habitation.

### **Comparative vocabulary**

The vocabulary for interior space production can now be placed in relation to a vocabulary of urban space production. The following illustrates the relationship between the terminologies.

This comparison acknowledges the dynamic method of space production, as the elements, point, line, plane and volume, can all be applied.

A theoretical investigation supports the development of a comparative vocabulary. This vocabulary then illustrates the relation between the terminology in the summary for interior and urban environments, with reference to the Constitutional Court.

### **Spatial typologies**

The three basic shapes (square, triangle and circle) are the spatial types that are found in both urban and interior environments. These types can be manipulated and transformed into various permutations and combinations into regular and irregular and open and closed forms (Krier 1979:28, 29) and (Krier 1988:18). The spatial types for both architectural and urban interior can be created.

### **Urban spatial typologies**

Urban spatial typologies are directly influenced by the street intersections in the spatial type, the number of streets and the positioning which result in various permutations of the spatial form (Krier 1979:28).

### **Interior spatial typologies**

Spatial sequence and organisation are instrumental in the arrangement and permutations of interior spatial form. The interior can display cell-like or open characteristics that determine the type of spatial organisation (Krier 1988:18).

Modification of spatial types can be achieved by means of extension, addition, subtraction and merging (Ching & Binggeli 2005:23). Interior spatial types are shaped within architectural boundaries.

### **Pattern**

The relation between solids and voids in the built environment can be described as pattern. The composition of these constitutes an association with function, proximity and circulation path that result in patterns of form and space (Ching 1979:194).

### **Urban pattern**

Curran (1983:67) lists three basic patterns that are perceived as meaningful: proximity, continuation and closure. With the use of these Gestalt principles, two relationships of spatial form are created (linear and cluster). Spatial form then refers back to urban typologies as discussed earlier.

### **Interior organisation**

The categories of spatial organisation are concerned with the formal characteristics, spatial relationships and contextual responses of the organisation. A building's interior spaces can be arranged in centralised, linear, radial, clustered and grid patterns (Ching 1979:205, 206).

## **Linkage**

(Ching 1979:246) argues the generality of circulation paths within interior and urban spaces:

“The circulation path can be conceived as the perceptual thread that links the spaces of a building, or any series of interior or exterior spaces, together. Since we move in time through a sequence of spaces, we experience a space in relation to where we’ve been, and where we anticipate going.”

Linkage is therefore common for both architectural and urban interiors.

## **Urban linkage**

Trancik (1986:97) discusses the linkage theory as an organising tool for the structuring of urban space. Circulation connections and networks of roads ensure a spatial datum in order to achieve comprehensible links in the city.

Permeability deals with the layout of spaces. Bentley, Alcock, Murrain, McGlynn & Smith (1985:10) argue that the number of routes and the manner in which these link will provide opportunity for circulation and ultimately affects the permeability of an urban space.

## **Interior circulation**

The application of axis as ordering principle in architectural interiors, allows for spaces and forms to be organised as passages in a linear manner (Ching 1979:334).

The creation of transitions and circulation spaces within interiors then determine the linkage of areas (Kilmer & Kilmer 1992:225). The configuration of the path, the path-space relationship and the form of the circulation space are all important aspects to consider within interiors. In addition, the approach to a building and the entrance from outside to inside, determines the interior–exterior linkage (Ching 1979:247).

Linear spaces act as connections, as movement is suggested along the axis (Ching 1979:28) and (Ching & Bingelli 2005:22).

## **Scale, fabric, grain, and texture**

Scale, fabric, grain and texture are determined by the environment in which these are found. The structure or framework of a space, as well as the arrangement and size of elements relates to the scale and subsequently influences the fabric, grain and texture. Generic space and human scale are identified (Ching 1979:326).

## **Urban scale, fabric, grain, and texture**

Ching (1979:326) defines generic scale as:

“...the size of a building element (or building) relative to other forms in its context.”

Therefore, buildings and elements within the urban environment are relative in size. The scale of urban spaces is defined by building edges.

Scale within the urban environment suggests hierarchy, as the function and circulation access need to be accommodated (Curran 1983:112). The scale of urban space, remaining space between buildings, is defined by the building edges and is influenced by the grid of the city. Texture, grain and fabric are enhanced by the nature of this pattern that can be natural, differentiated, superimposed or fractured (Dewar & Uytendogaardt 1995:37). In addition, materials and the treatment of surfaces add to the texture, grain and fabric of the city (Curran 1983:52).



### **Interior scale, fabric, grain, and texture**

Interiors are spaces inside buildings and should therefore relate to human scale.

“...the size of a building element or space relative to the dimensions and proportions of the human body” (Ching 1979:326).

The interior fabric, grain and texture are affected by the size and placement of elements and objects within the space, and the type of spatial arrangement. The placement of furniture within the space planning process, allows for distribution of elements. Open and closed arrangements determine the distribution of space defining elements (Kilmer & Kilmer 1992:203).

The choice and application of materials and finishes influence the texture, grain and fabric of an interior. “...supply colour, texture and pattern...to a space...” (Ching 1979:358).

### **Spatial section, -floor, and -edge**

The relation between floor and edge in the built environment can be described as a section in urban and architectural environments.

### **Urban spatial section, -floor, and -edge**

The sectional relation of floor and edge of a city consists of the urban floor (sidewalk or road) and the facades of buildings. The height of the facades defines the character of the spatial section and influences the desire to assemble or disperse (Gehl 1987:94, 95).

### **Interior spatial section, -floor, -edge and -ceiling**

Ching & Binggeli (2005:3) list point, line, plane and volume, as the geometric elements that can be arranged to articulate space. It is these elements that constitute the enclosure system of interiors. Floor, exterior wall, window, door and roof are used in composition to protect the interior environment against the elements. In addition, ceilings, internal walls and partitions are used to define the interior space (Ching & Binggeli 2005:9).

### **Legibility, imageability**

The comprehension of a space or the layout of a space can be described as legibility (Bentley et al 1985:42). Imageability relates directly to legibility, as people are reliant on imageability of a space to orientate and create an understanding of physical elements and the context (Curran 1983:70).

### **Urban legibility, -imageability**

Legibility refers to the comprehension of a layout on two levels: physical form and activity patterns (Bentley et al 1985:10, 42). The physical elements that clarify legibility are pointed out by Lynch (1960:47, 48) as nodes, edges, paths, districts and landmarks. These elements provide hierarchy with the use of physical devices within the city.

### **Interior legibility, -imageability**

Hierarchy as ordering device also structures interior space that can improve the legibility and imageability within architectural enclosures. Hierarchy can be achieved by means of difference in size, shape or placement of objects (Ching 1979:350, 351). Interior elements then become the focal points in the space for orientation.

## **[Square, street] and [room, corridor]**

Krier (1979:16) indicates the relation between exterior and interior classifications of space. The basic elements within the urban environment are street and square, and corridor and room within the interior environment.

“The geometric characteristics of both spatial forms are the same. They are differentiated only by the dimensions of the walls which bound them and by the patterns of function and circulation which characterise them.” (Krier 1979:16, 17).

### **Square/street section typology, -edge typology**

Urban spaces, both square and street, are defined by adjacent building forms, but remain open to the sky (Ching 1979:48). The section type is related to the nature of the space and the edge type determined by the articulation of the defining facades.

### **Room/corridor section typology, -edge typology**

Interior spaces are enclosed on all sides. Corridors as linear in form are arranged sequentially along a line and display procession and movement. Rooms are clustered space have centralised qualities, as the interior need to provide space for activities (Ching 1979:73, 77).

## **Floor**

Ching (1979:115) states that the base plane is a horizontal plane also when it is depressed or elevated on floor level. The nature of the edge definition determines the emphasis of the spatial zone. Datum as ordering devise is then created (Ching 1979:358).

### **Urban floor**

The urban floor is separated by buildings that constitute the city fabric. The remaining areas between are available for activity and circulation. Within the city, people, but primarily vehicles occupy these spaces. The ground treatment indicates the allocation of access areas (Curran 1983:140).

The floor plane, as a defining surface, has the potential to have expressive qualities. Cullen (1961:128) argues:

“The first reaction of a person who becomes aware of the value of the floor as potential scenery is to decorate it.”

### **Interior floor**

The differentiation of interior floor space facilitates activities and movement through the arrangement of the space (Curran 1983:140). In addition, the surface material affects the character of space and also defines different areas within an interior (Kilmer & Kilmer 1992:425).

### **Visual connections, structural connections, functional connections**

Curran (1983:125) argues:

“...the openings within the surfaces extend and expand the interior spaces contained and exterior spaces defined, creating both visual and functional overlap and linkage.”

Visual, structural and functional connections are found throughout the built environment.

## **Urban visual connections, -structural connections, -functional connections**

“Building surfaces play a vital role in providing both expressive and supportive qualities in the urban experience.”  
(Curran 1983:125).

Visual connections are located on axes and vistas along open spaces in the city. Gehl (1987:165) argues the importance of distance and field of vision to create visual connections.

Functional connections are made possible by means of zoning of functions and activities such as administrative, cultural, industrial, commercial and residential. These zones are linked by means of nodes and networks (Krier 1984:32, 40).

The interrelationship of domains influences the connection between zones and creates transition areas (Curran 1983:133). As a result the figure-ground relationship is created.

## **Interior visual connections, -structural connections, -functional connections**

Openings within planes establish visual and physical connections between areas within an interior. Doors allow for physical access and communication within the spatial boundary, and windows ensure visual connection between spaces (Ching & Binggeli 2005:28, 29).

Functional connections are further defined by the desired relationships between activities, space for movement, adjacent spaces and the outside. Interior zoning is the result of these relationships. Organisation of activities is arranged according to use and activity (Ching & Binggeli 2005:60).

Structural connections are used to articulate the junctions in an interior space (Ching & Binggeli 2005:8). These junctions are responsible for the nature of the interior articulation: floor to wall and wall to ceiling.

## **Summary of comparative vocabulary**

The comparative vocabulary has been selected from the theoretical investigation conducted. The relation between urban (urban interior) and interior (architectural interior) terminologies are illustrated.

### **Spatial typology**

Urban	square, circle, triangle open, closed Court courtyard – open Great African Steps - closed
Interior	square, circle, triangle open, cell-like/closed Court foyer and exhibition steps - closed

### **Pattern**

Urban	linear, cluster solid, void Court courtyard – cluster, void Great African Steps – linear, void
Interior	centralised, linear, radial, cluster, grid figure, ground Court foyer – centralised, figure Exhibition steps – linear, figure

## **Linkage**

- Urban roads, permeability  
Great African Steps
- Interior passage, axis, transitions  
Exhibition steps

## **Scale, fabric, grain and texture**

- Urban generic scale, city grid, surface treatments  
Court courtyard, Great African Steps
- Interior human scale, interior organisation, materials and finishes  
Court foyer, Exhibition steps

## **Spatial section, -floor, -edge**

- Urban road, sidewalks, facades, height  
Court courtyard, Great African Steps
- Interior enclosure system, floor, walls, ceiling  
Court foyer, Exhibition steps

## **Legibility and imageability**

- Urban comprehension – form, activity  
orientation – nodes, edged, paths, districts, landmarks  
node – Court courtyard  
path – Great African Steps
- Interior comprehension – interior zones,  
orientation – hierarchy, focal point  
Court foyer

## **[Square, street] and [room, corridor] section typology, -edge typology**

- Urban square – centralised, Court courtyard  
street – linear, Great African Steps
- Interior room – centralised, Court foyer  
corridor – linear, Exhibition steps

## **Floor**

- Urban activity, circulation, ground treatment
- Interior activity, movement, material

## **Visual connections, structural connections, functional connections**

- Urban axis, vista, distance, field of vision  
zoning, nodes, networks
- Interior openings, doors, windows  
junctions, articulation  
organisation, zoning

## **Summary**

The composition of point, line, plane and volume, results in the articulation of static, physical space. A collective use of terminology made possible the exploration of both architectural and urban interiors simultaneously.

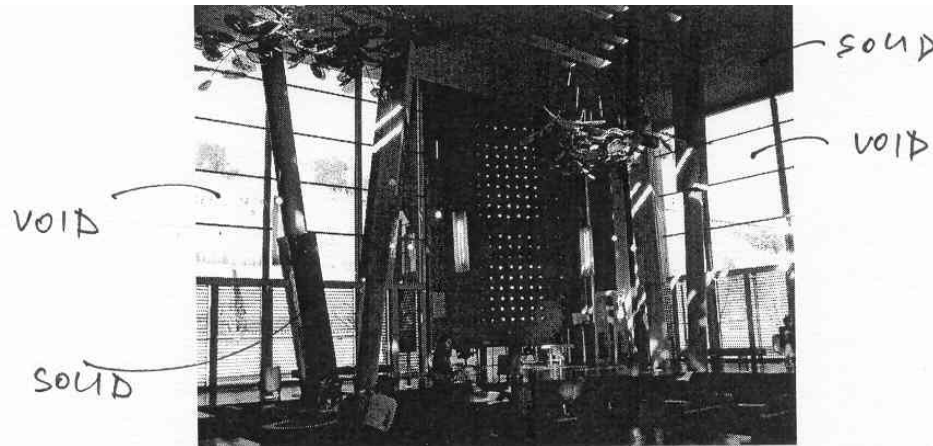
A comparative vocabulary indicated the relation of terms for spatial production, within the urban and interior spaces of the Constitutional Court.

## Conclusion

Lipman (2004:18) states that:

“...the design consists of a succession of built and open spaces, of solid and void juxtapositions.”

The description here includes the integration of spatial elements and organisation within a harmonised composition.



**Figure 24**  
**Solid and void**

The use of terminology from an architectural interior perspective allowed for a collective application of a theoretical vocabulary. The elements: point, line, plane and volume, were collectively used for the definition of static, physical space on both architectural and urban level. The integration of data, observational and theoretical, illustrated the relation between the criteria for interior spaces, regardless of the location.

Does this disclosure then grant recognition of the word ‘interior’ regardless of the location of a space?

## Notes

1. Edward Soja is professor of Urban Planning at the UCLA School of Public Affairs.
2. The Constitutional Court is a symbol of democracy in South Africa, promoting human rights and reconciliation.
3. Constitution Hill is the site for the new Constitution Court. Important heritage buildings are found here: the Old Fort and three prisons, The Fort (isolation cell), Section Four and Five and the Woman’s gaol.
4. The scheme entered by OMM Design Workshop and Urban Solutions was selected as the winner for the international design competition.

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