



- architecture and the voice ▪
- urban design framework ▪
- urban intervention ▪
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INTERSECTION, 1992. A sculpture by Richard Serra. (Cooke & McShine, 2007: p.191)

4.01

“The intelligibility of Serra’s pieces is not given through any code or language of distinct pictorial or compositional elements. Instead, they are constructed diagrams of spatial disposition and movement. They cannot be read simply by looking at them, only by moving within them; rather than being grasped cognitively at a distance, or recalled as image, they must be experienced here and now.” (McShine & Cooke, 2007: p.16.)

04 design development

"This is the architectural mosaic of our planet. The same buildings are erected in any capital of the world, regardless of how much of a specific setting's historical or cultural baggage they may be carrying. Our history and culture are now global, common, linked by necessity, and following the same path. At the same time, they are inseparable, as Adolf Loos stated when he said: "today is built on yesterday, just as yesterday was built on the day before. It has never been any other way, and never will be."
(Vidiella, 2007: p.13)

Architecture and the voice

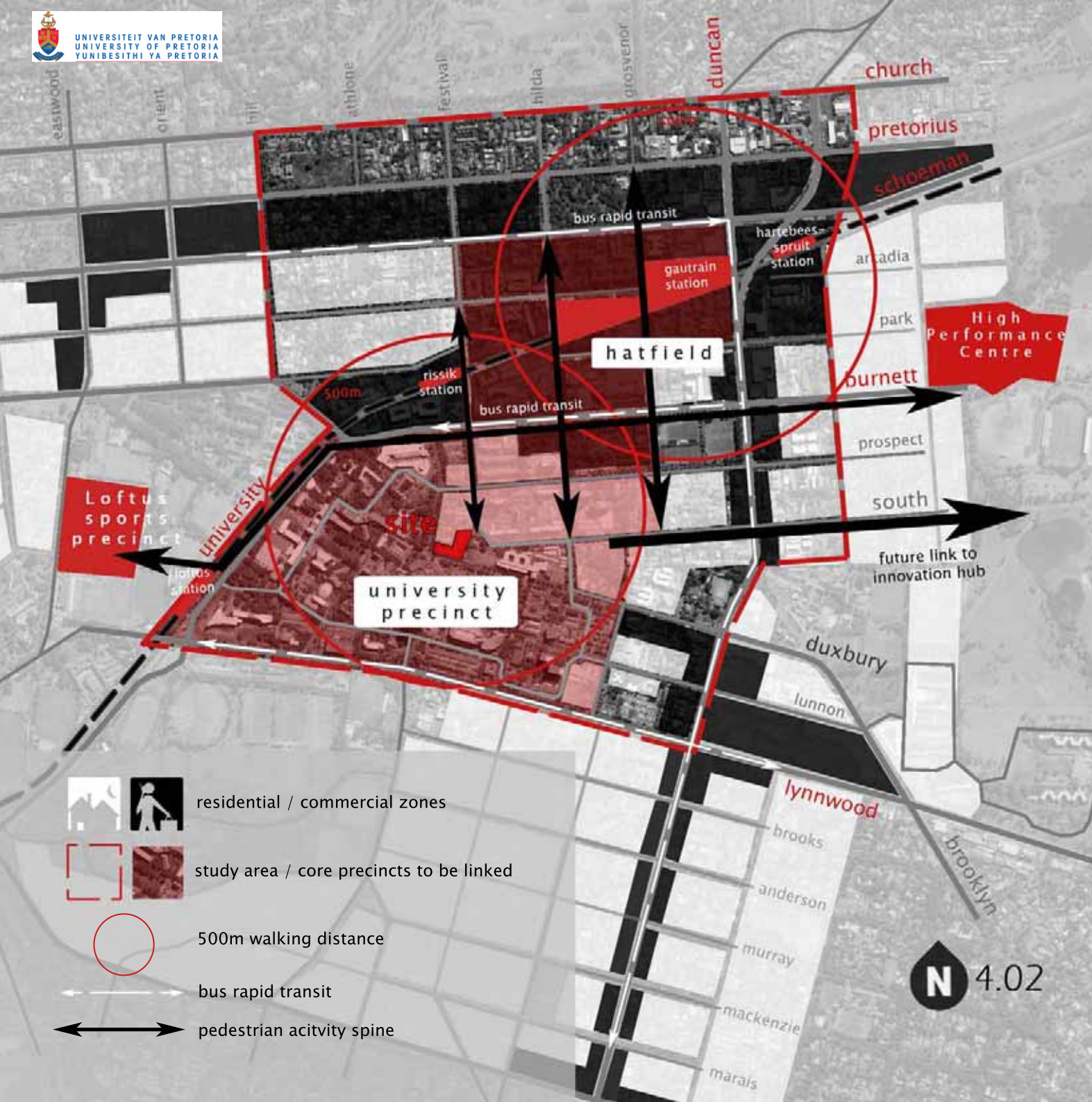
"Semiotics and structuralism propose language not as a metaphor for architecture, but rather that architecture is a language." (Markus, 2002: p.5)






When intercultural expressions are physically experienced within a space, the space acquires a certain aural dimension. An aspect ratio that brings cultures together, announcing man's presence of arriving, meeting, agreeing, and being together. So, when this space becomes a sentence within a poem, the poem forms the background fabric for human activity to flourish, with a beginning, middle, and an end.

"Instead of creating mere objects of visual seduction, architecture relates, mediates, and projects meanings. The ultimate meaning of any building is beyond architecture; it directs our consciousness back to the world and toward our own sense of self and being. Significant architecture makes us experience ourselves as complete embodied and spiritual beings. In fact, this is the great function of all meaningful art." (Pallasmaa, 2006: p.20)

The meaning of architectural space is only relevant when the whole context i.e. social, temporal, and spatial is taken into consideration. This idea is further emphasized with the fact that: "by focusing on form as the main determinant of what a building 'means' leaves out things which, in the real world, are fundamental to its meaning." (Markus, 2002: p.10.) The meaning of space is therefore partially generated by the users of that space, creating a social landscape which is formed by human behaviour.

This chapter will commence by investigating the 'poem' of which is spoken previously. The 'poem' suggests the urban framework in which an architectural space needs to function. A framework that weaves all the different ideologies together within a holistic whole.



-  residential / commercial zones
-  study area / core precincts to be linked
-  500m walking distance
-  bus rapid transit
-  pedestrian activity spine



Urban Design Framework

The concept of *'infill and void'* will be the underlining thread that weaves the theoretical argument, the proposed urban framework, and the architectural conclusion together. In its broadest meaning, infill is material that fills in an otherwise unoccupied space, being the void. In urban planning and development, infill is the use of land within a built-up area for further construction, especially as part of a community redevelopment or growth management. It focuses on the reuse and repositioning of obsolete or underutilized buildings and sites. This type of development is essential to renewing blighted neighbourhoods and knitting them back together with more prosperous communities. On a theoretical level the concept of 'infill and void' suggests the learning of subject matter that has been previously misunderstood or not known at all – the gaining of knowledge.

The proposed urban design framework for the project will utilize this concept of *'filling in the voids'* and will be integrated with the Hatfield Metropolitan Core Urban Development Framework, implemented by the local authority. The long term goal of the urban design framework is to remove the physical boundaries of the university compound and integrate the education precinct with the surrounding commercial, residential and other educational precincts. This long term goal of *integration* would occur with intermediate phases where different scaled projects clipping onto one another, forming a type of 'bricolage' (ad hoc patchwork of types and styles).

"In the urban, everything is calculable, quantifiable, programmable; everything, that is, except the drama that results from the co-presence and re-presentation of the elements calculated, quantified, and programmed."

(Lumby, 2006.)

Urban aspects:

- **Integration** – Connection and overlap with surrounding areas.
- **Functional efficiency** – So that individual elements (buildings, streets, open space etc) work together as part of an efficient whole.
- **Environmental harmony** – Creating development forms that are energy efficient and ecologically sensitive.
- **A sense of place** – Creating somewhere that is recognisably distinct but simultaneously strengthens local identity.
- **Commercial viability** – Responding to the realities of market influences on development assortment and delivery.

4.02

Diagram indicating the Hatfield Metropolitan Urban Core Development Framework

study area /
core precinct

activity node

bus rapid
transit

pedestrian
activity spine

@
interactive
public square

A UPspace
archive
precinct

B Student
Centre

C Language
Learning
Centre

D Prof.
Design
Precinct

E Community-
based infill
Precinct

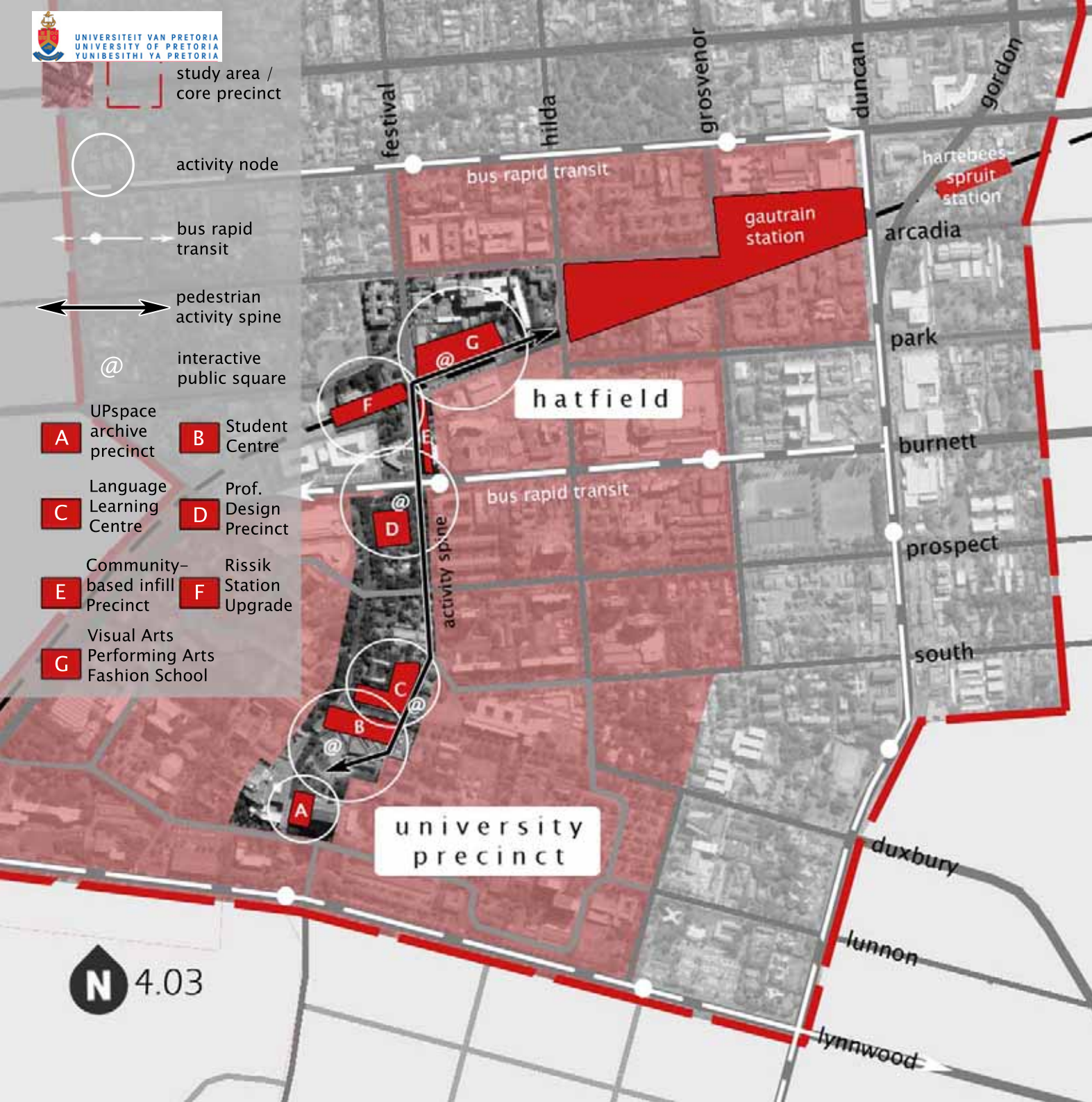
F Rissik
Station
Upgrade

G Visual Arts
Performing Arts
Fashion School

university
precinct

hatfield

N 4.03



*The design of the **streetscape**, public spaces, public and private facilities will be an integrated framework of dignified human environments.*

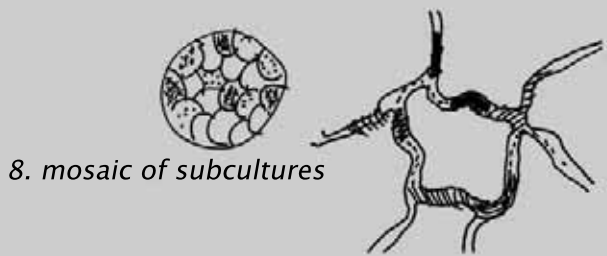
- The establishment of a clear spatial structure through an identifiable **hierarchy of routes**, visual connections to semi-private spaces and supporting building types increasing the legibility of the overall environment.
- The creation of **transition zones** from public (both commercial and institutional), to semi-private courtyard spaces and private residential spaces. This will enhance visual interest and foster street life along the pedestrian edges.
- Equitable access to all commercial opportunities and community facilities by ensuring that facilities are not embedded within the neighbourhoods but located along main routes. Facilities should be combined to promote **multi-functional activity**, so strengthening the civic spaces by intensifying their use.
- The making of a coherent streetscape through the design and building of **active interfaces** between the buildings and the street.
- Using **defensible space** and informal surveillance principles throughout to ensure that all streets, public open spaces and facilities are overlooked.
- Establishing a safe formalized **public transport system** with facilities that will integrate different transport modes, linking regional activity nodes together.
- In order to improve the **green areas**; certain parts of the private sports grounds will be consolidated and the remainder will be reprogrammed to function as public open spaces, with more pedestrian-friendly green corridors which connect and form a network of accessible green pockets.

4.03 Diagram indicating the Urban intervention within the Development Framework.

Urban intervention

What does the urban fabric dictate?

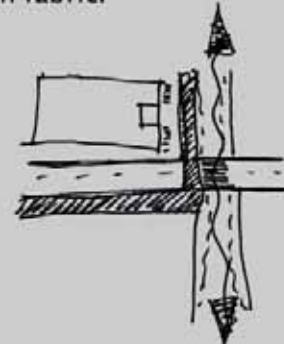
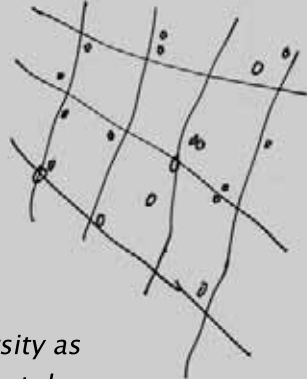
When the opportunities within the urban design framework and criteria of the levels of scales have been identified, an investigation into the urban fabric is done, by utilizing Christopher Alexander's 'A Pattern Language' as a baseline to generate 11 selective patterns for the urban fabric.



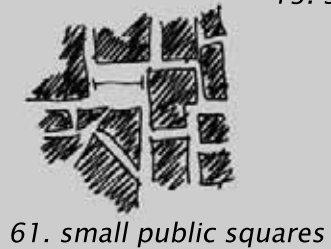
8. mosaic of subcultures

13. subculture boundary

18. network of learning



56. bike paths and racks

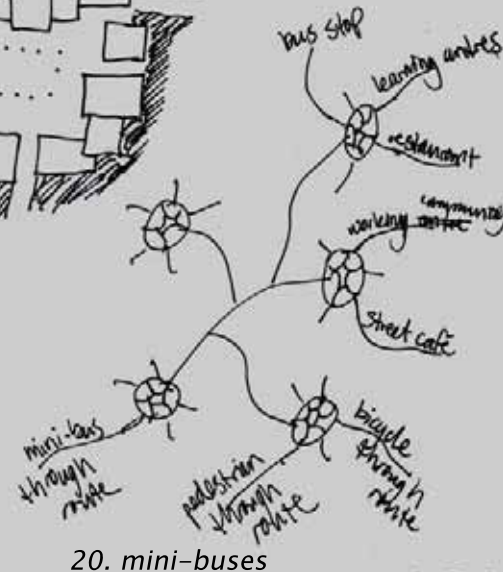
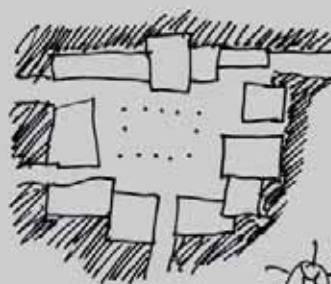


61. small public squares

43. university as a marketplace



33. night life

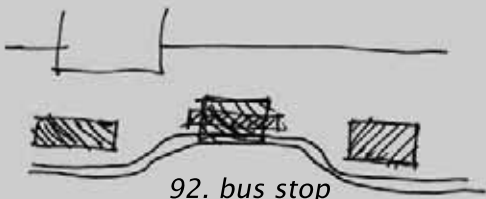
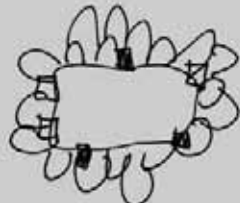


20. mini-buses



88. street café

41. work community

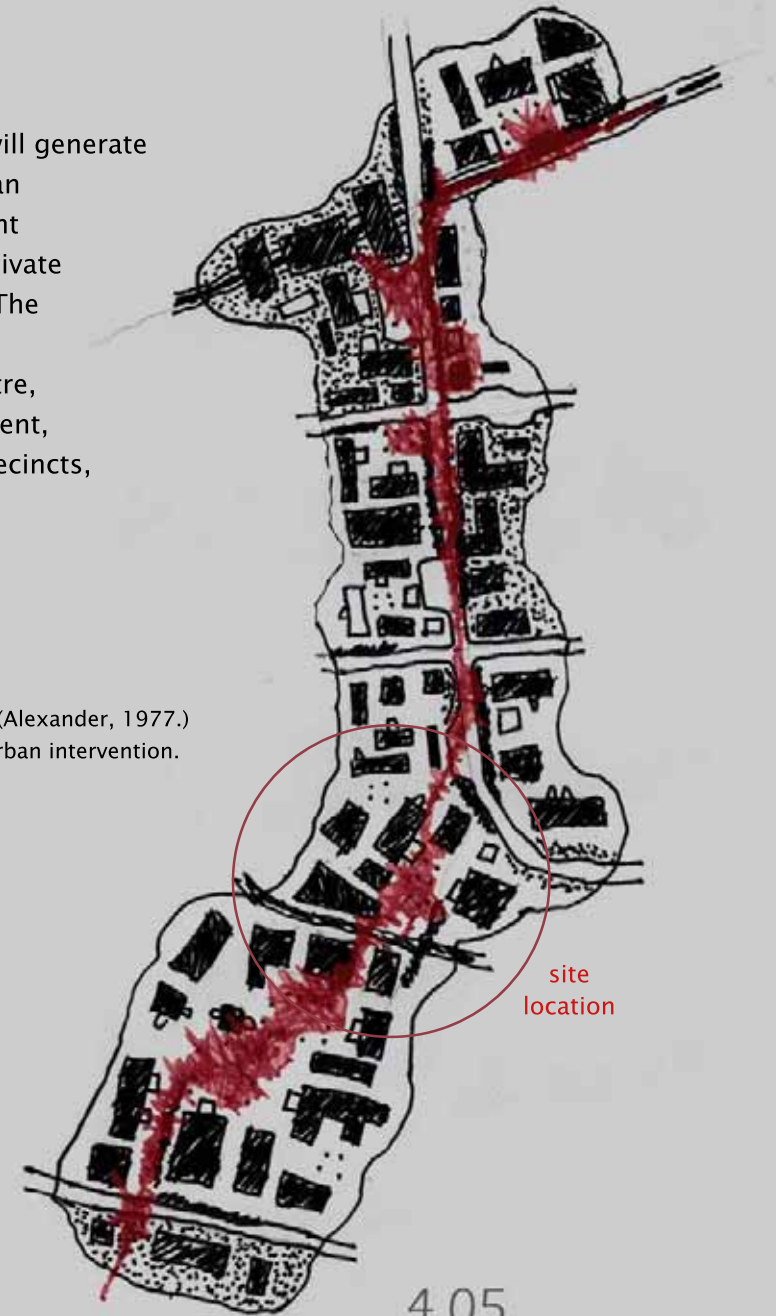


92. bus stop

By integrating these patterns, the result will generate an *urban intervention*. The proposed urban intervention will redirect pedestrian movement through previously inaccessible sites, and activate design opportunities along the urban spine. The framework includes developments like: a fashion design school, performing arts centre, visual arts centre, Rissik station re-development, spatial network of community-based infill precincts, creative professional design precinct, the proposed language learning centre, new student centre and urban square, and UPspace archive precinct.

4.04 11 generative patterns for the urban intervention (Alexander, 1977.)

4.05 Sketch indicating the spatial composition of the urban intervention.

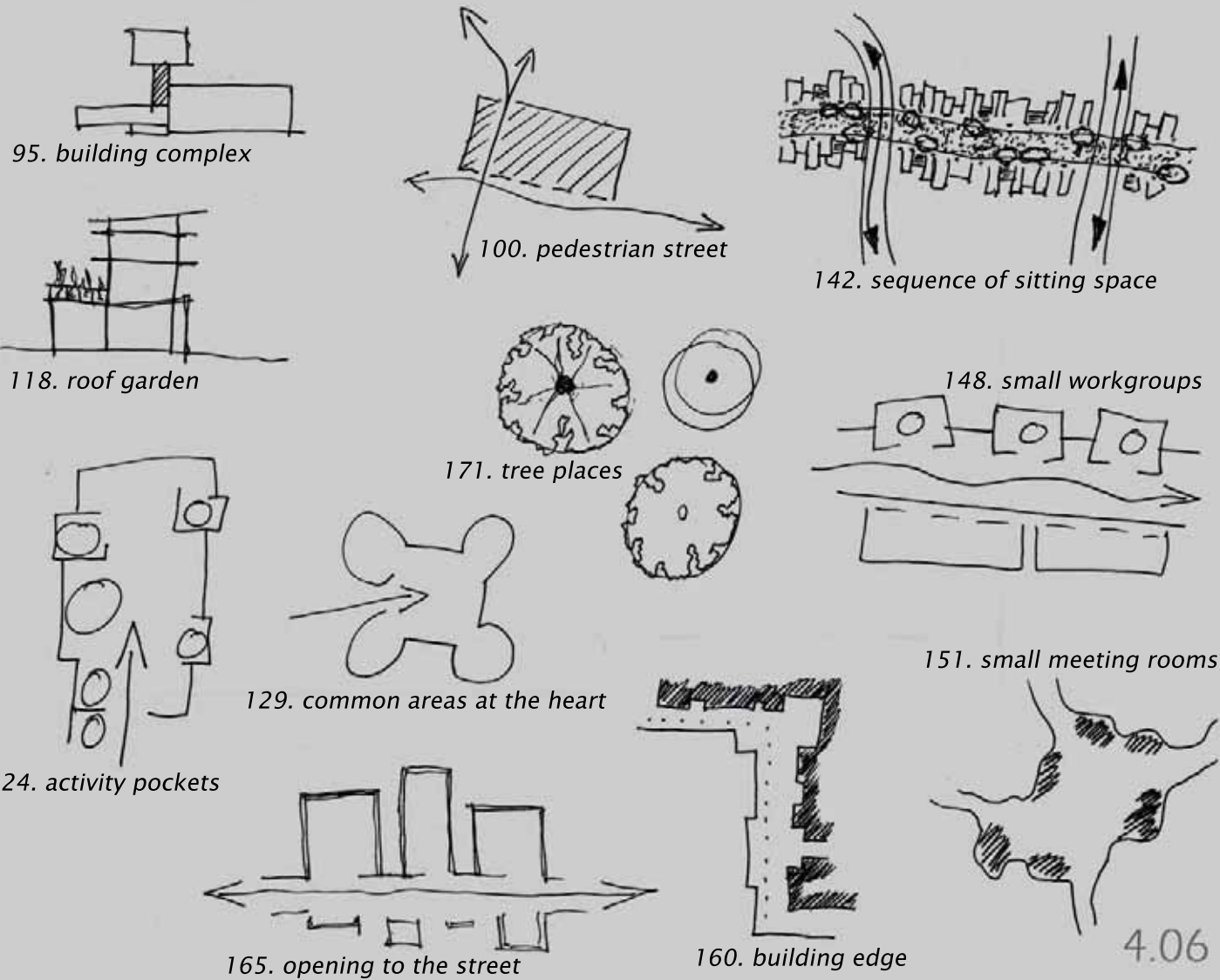


Site intervention

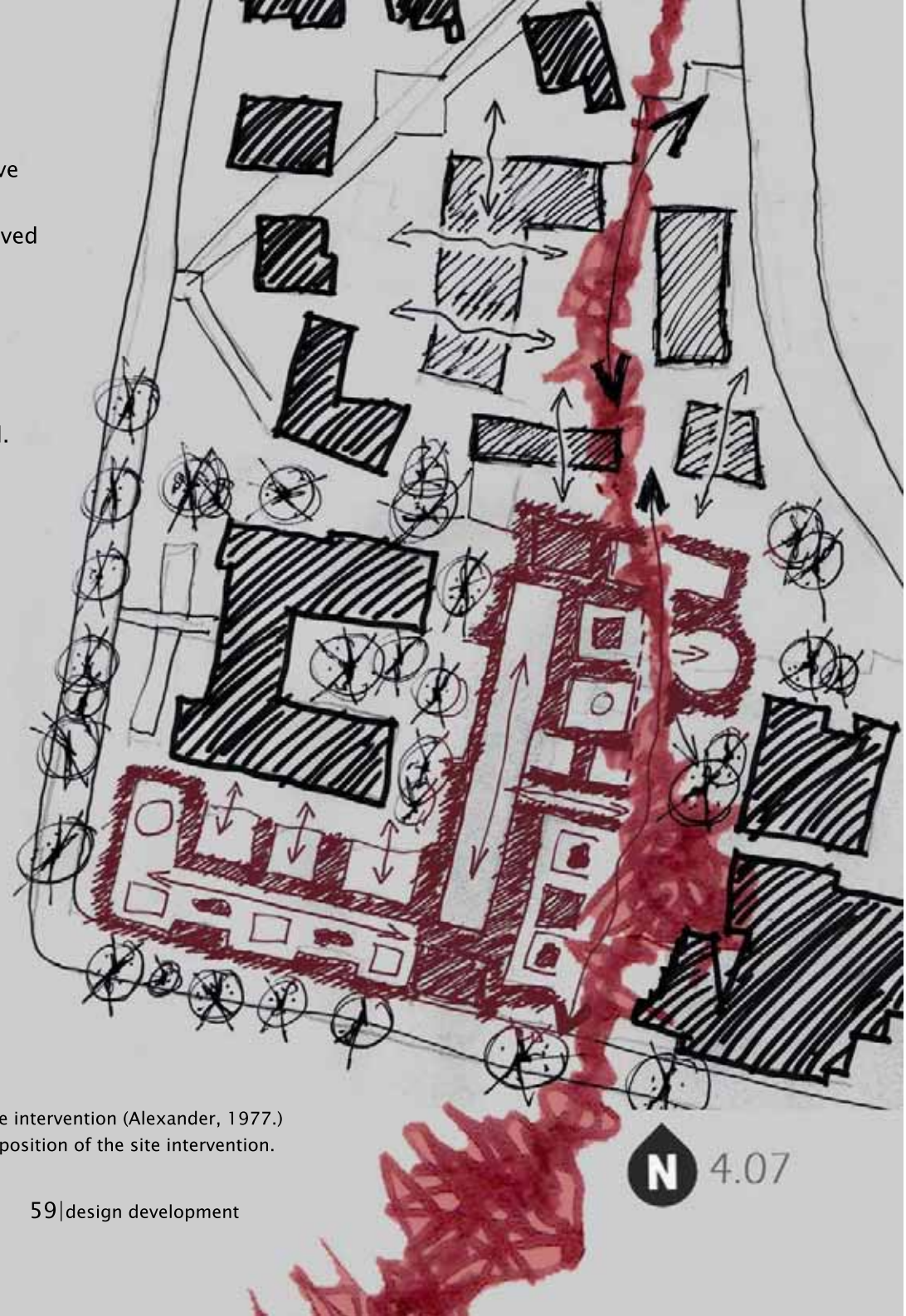
What does the site dictate?

Then, an investigation into the fabric of the site is done, by utilizing Christopher Alexander's 'A Pattern Language' as a baseline to generate 11 selective patterns for the site fabric.

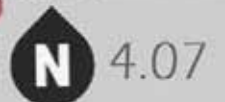
When these patterns are integrated with one another, they will in-turn generate a site intervention:



At the end of the generative intervention processes, the proposed development is weaved into the existing urban fabric. The integration of the urban intervention and the site intervention produces a *spatial layout* for the initiation of a design proposal. The proposal will develop the different programmed, semi-programmed, and unprogrammed spaces.



- 4.06 11 generative patterns for the site intervention (Alexander, 1977.)
4.07 Sketch indicating the spatial composition of the site intervention.



Design proposal

Concept Development

The images (figs. 4.08 & 4.09) serve to introduce the intentions of the concept.

As a conceptual entity, the building is somewhere between a 19th century Studley tool chest and a 18th century wunderkammern (a glass-fronted cabinet which displays ornaments):

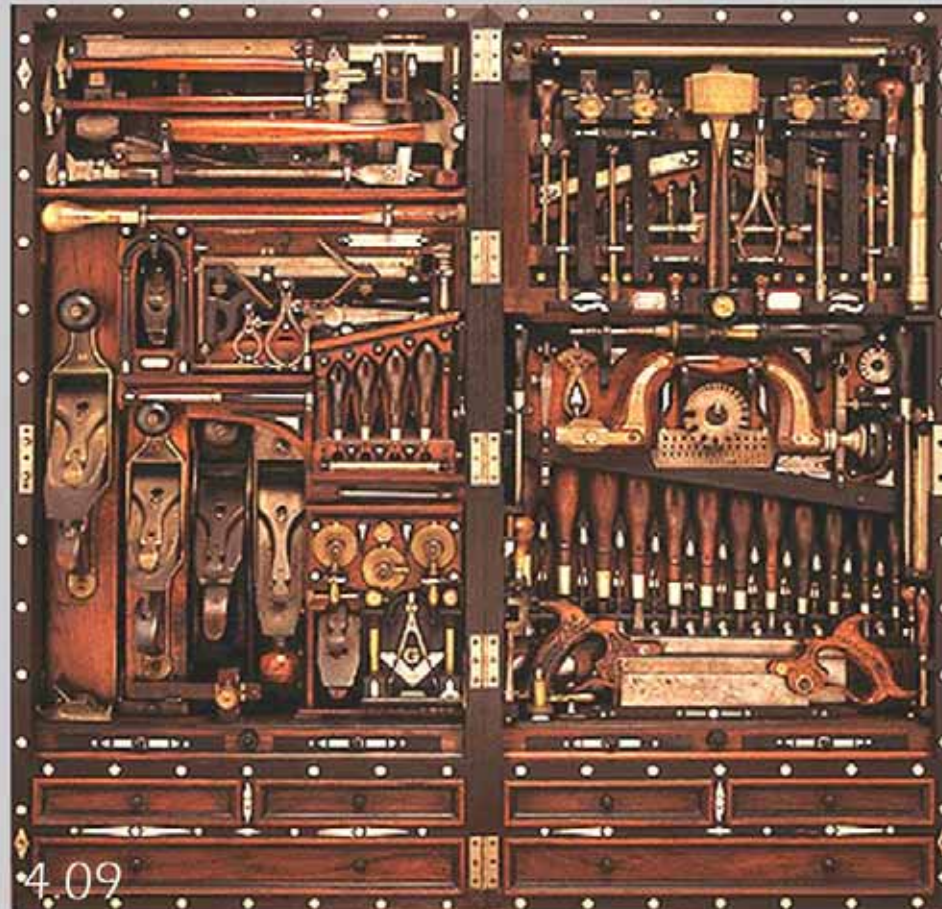
*A container that functions as a platform for
the collection of tools for shaping the tongue.*



4.08

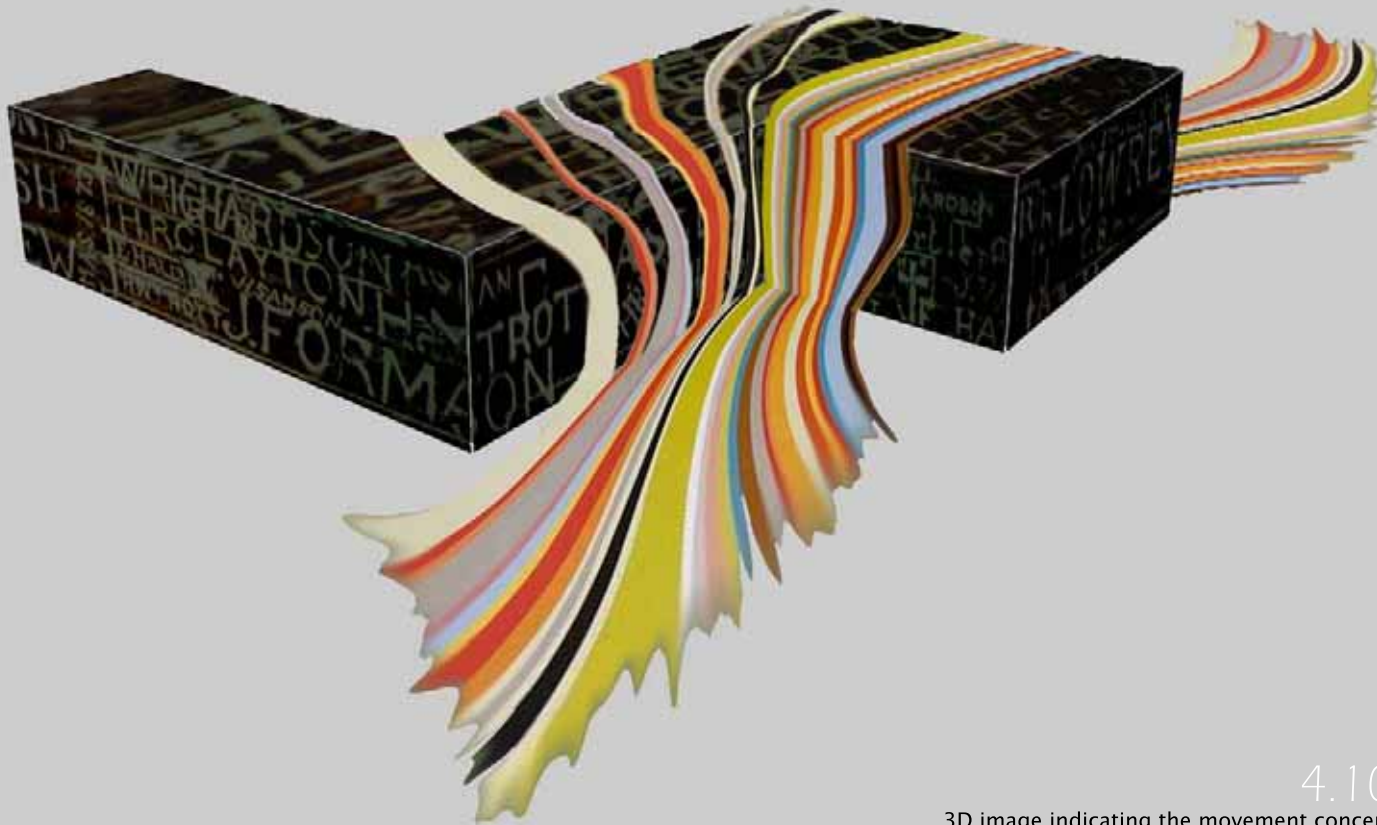
18th century wunderkammern

The aesthetics of tool chests can tell us much about workers and their workplaces. While its purpose is to organize, carry, and protect the tools, these chests also suggest what workers think of themselves and how society measures the value of their work. An architectural parallel, perhaps?



4.09

19th century Studley tool chest



4.10

3D image indicating the movement concept

Inspired by the parallel colour arrangement of Paul Smith's corporate logo (British fashion designer);
a metaphor is derived to symbolise the movement of different cultures through the container.

As the pedestrians progress through the space, their movement is translated into a weaving process.

A process of combining spatial layout with programmed volumes.

A development of integrating education with commerce.

And most importantly an intertwining of different cultures, language groups, individuals, and ideas.



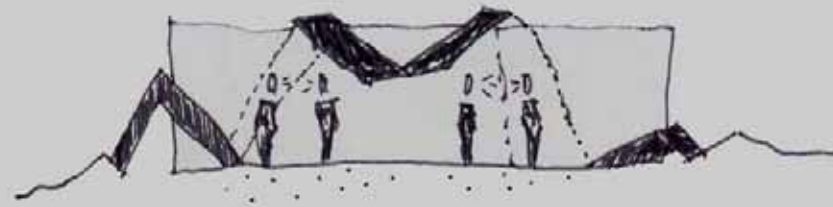
communicating void



linking noise



container of understanding



weaving cultures together



applying knowledge

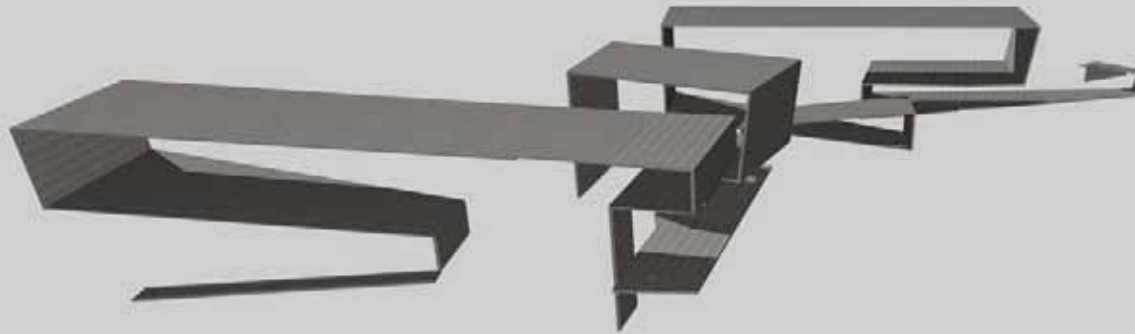


communicating wholeness

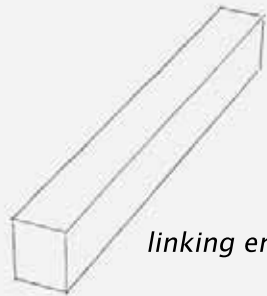
Human

*a concrete ribbon weaving through the site
up and down, from left to right
crafting social spaces as it glides
creating, embracing, divides.*

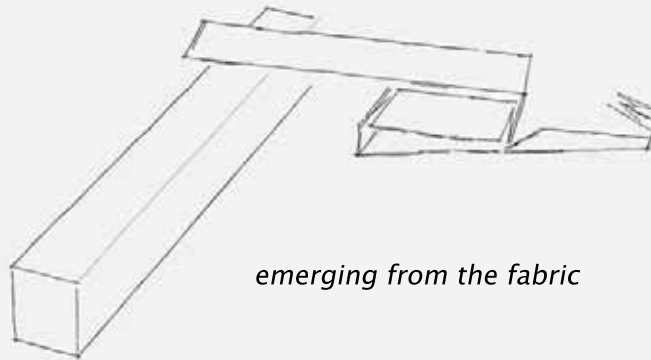
(The author, 2008.)



Formal Development



linking entities



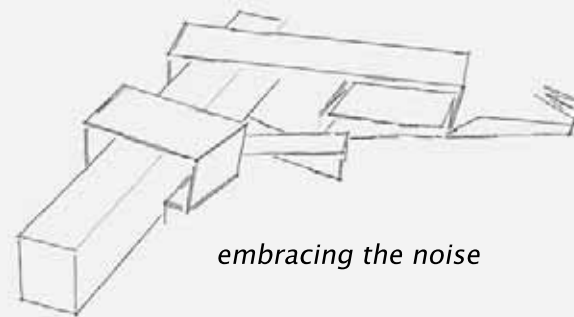
emerging from the fabric

4.12

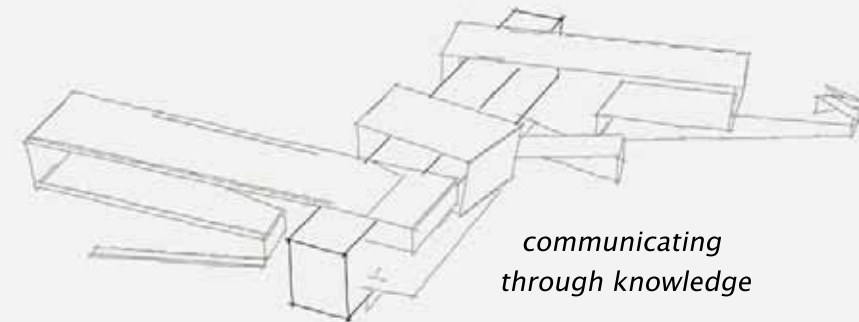
The series of images indicate the tangible weaving process.



The poem serves to introduce the progression of the idea of weaving into a more tangible entity. An entity with horizontal and vertical planes floating above the surface touching here and there, speaking with geometric vocabulary in a concrete tone of voice.

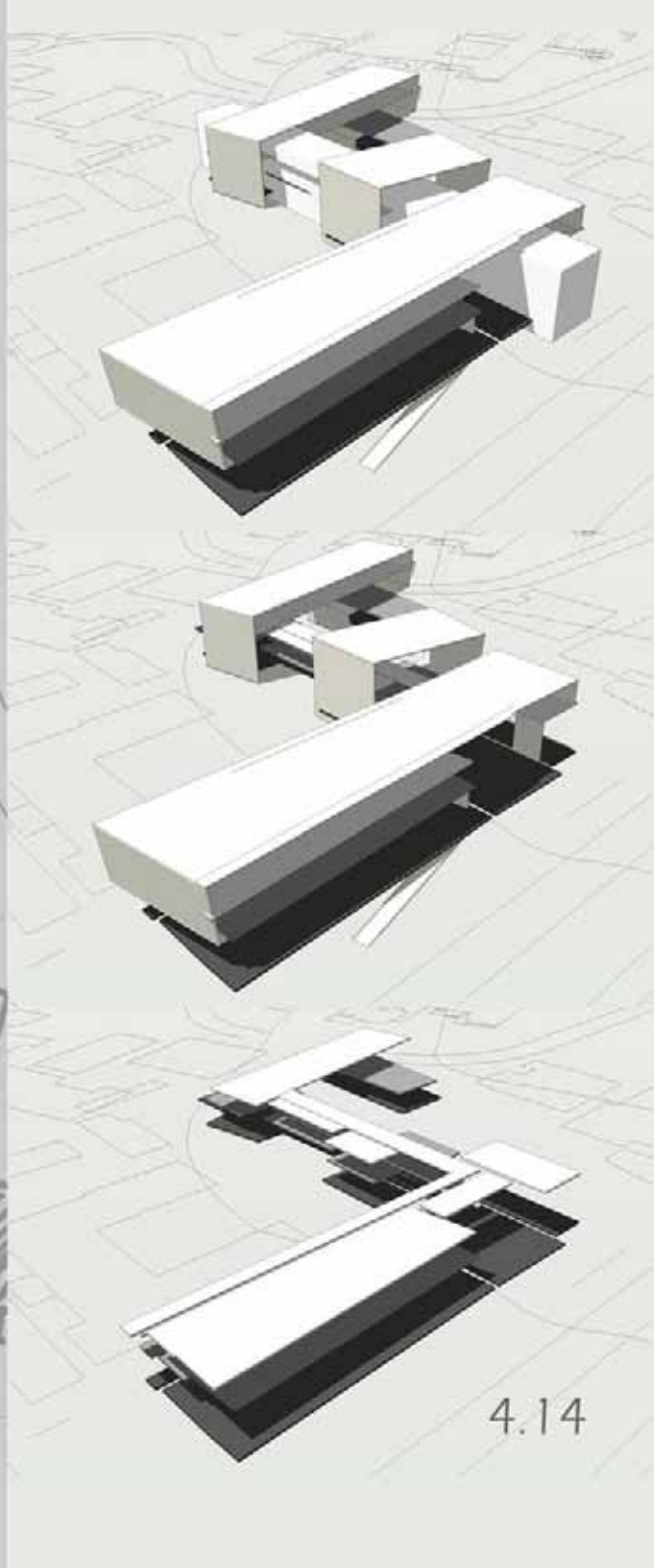


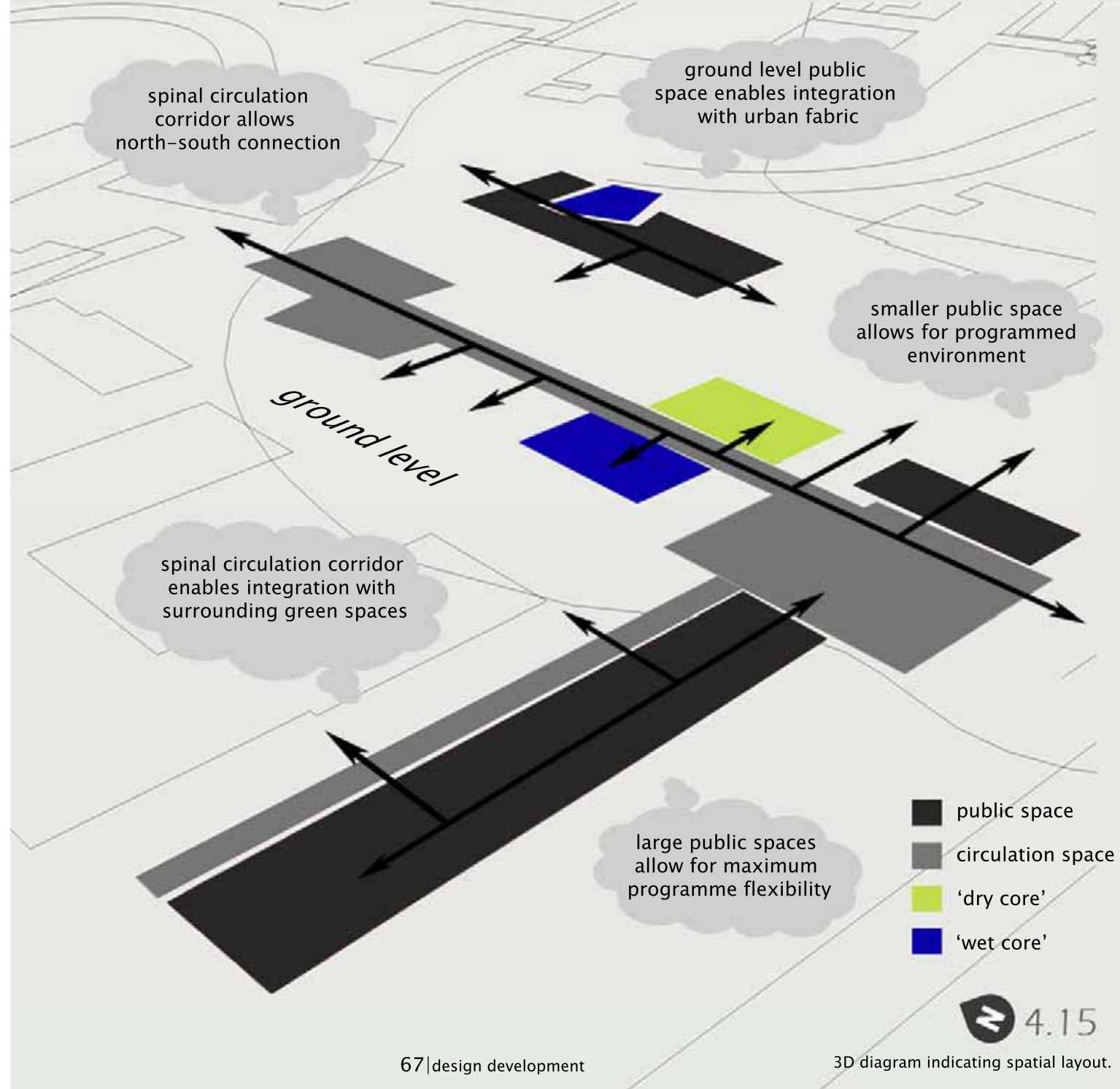
embracing the noise

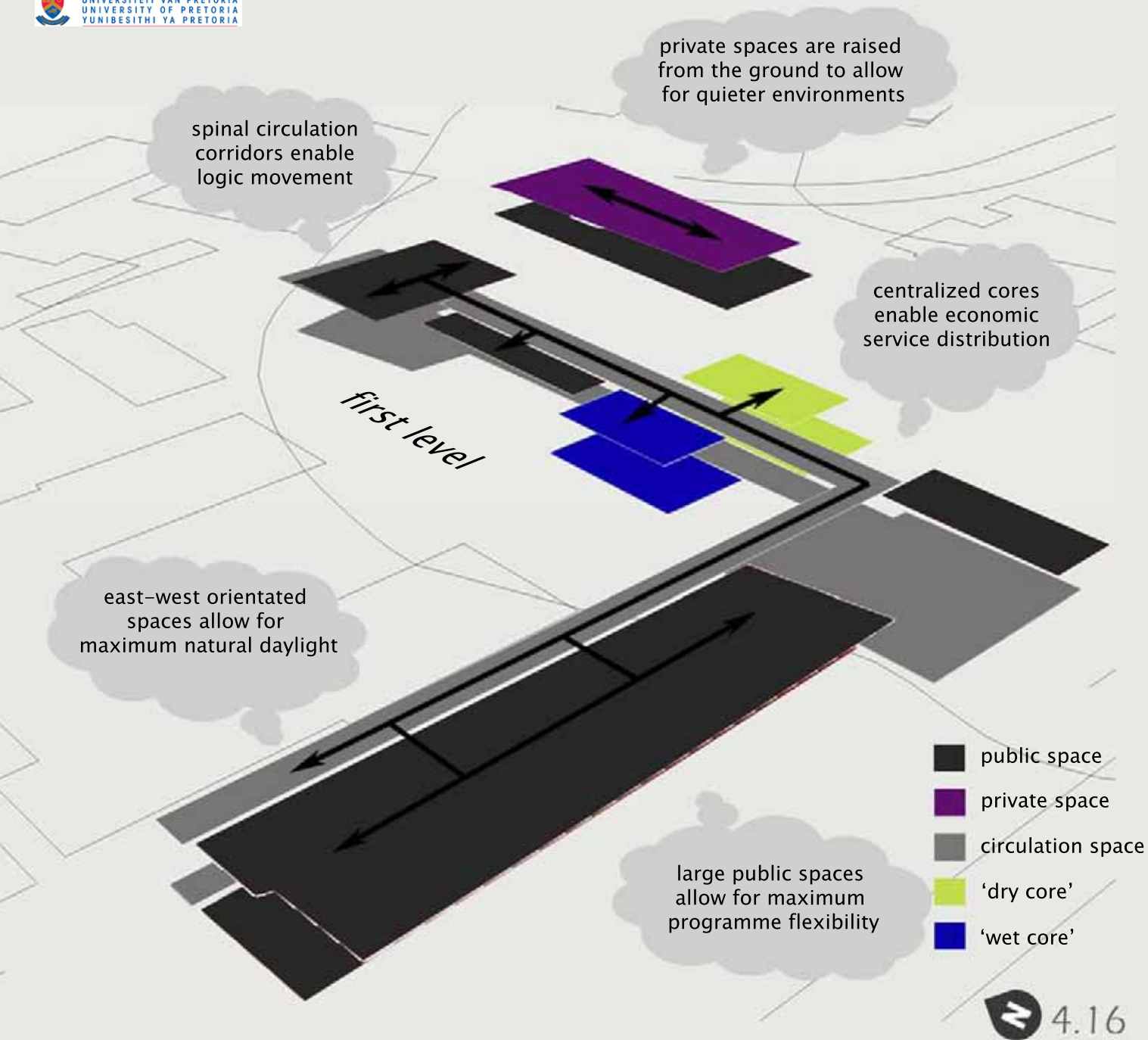


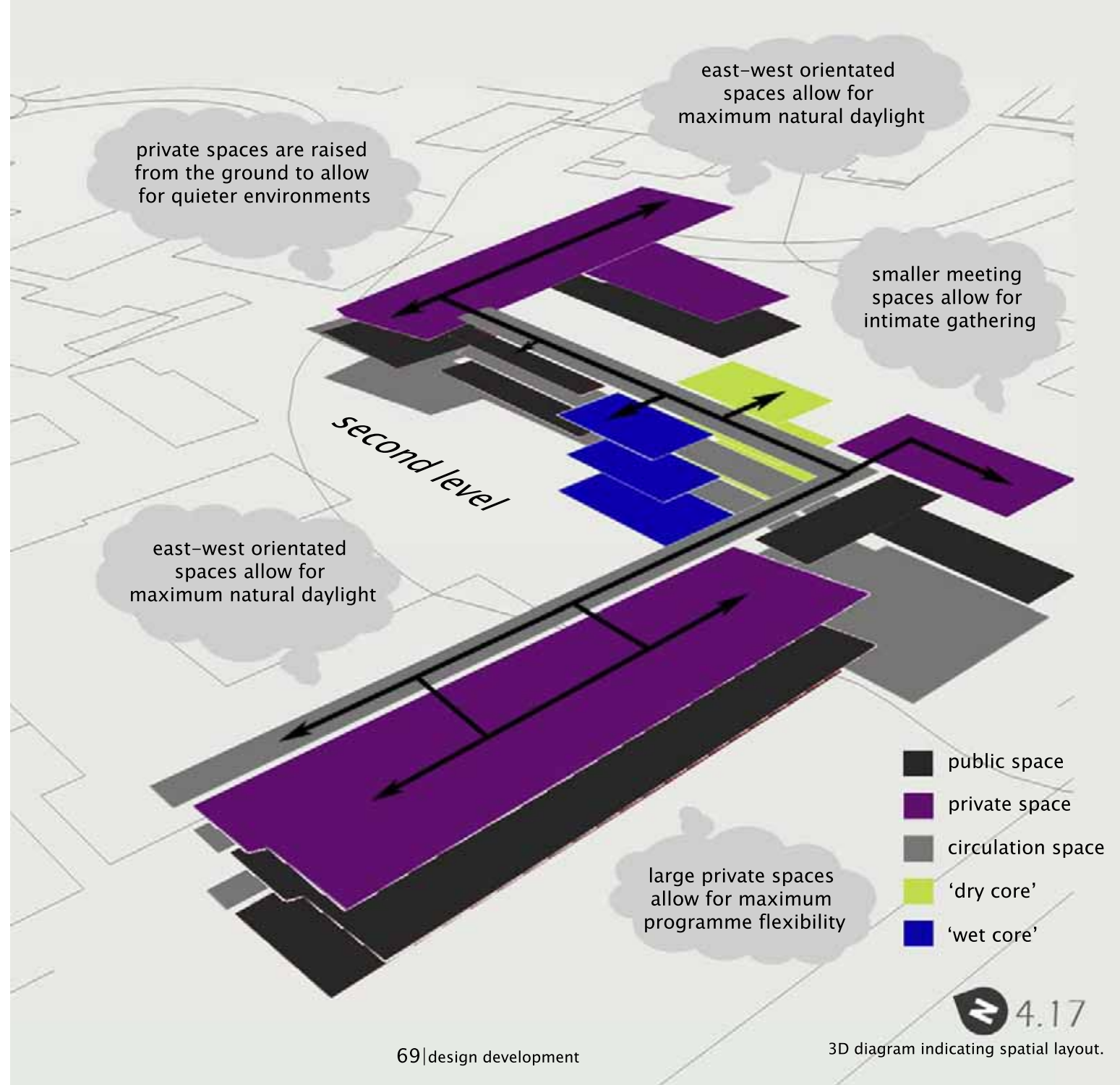
communicating through knowledge

The integration of the urban intervention and the site intervention produced the spatial layout, which will be integrated with the formal development in order to initiate the *spatial development*. The outcome will produce the different programmed, semi-programmed, and unprogrammed spaces of the building.











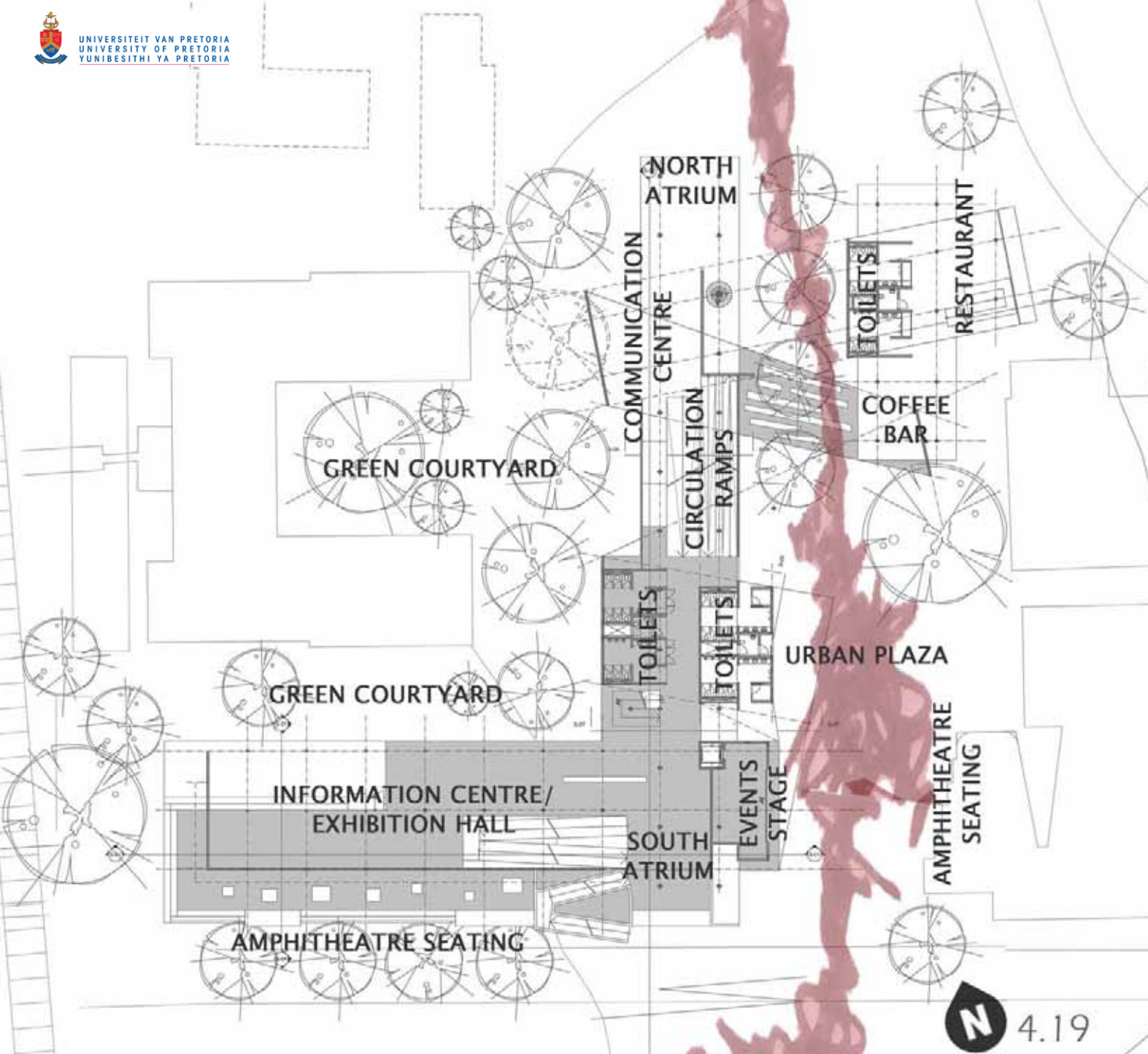
MEETING/COMMON ROOMS • MULTI-PURPOSE LOUNGES • ABLUTIONS • EDUCATION CINEMA
VISITOR INFORMATION CENTRE • EVENTS STAGE • STORAGE • EXHIBITION HALL



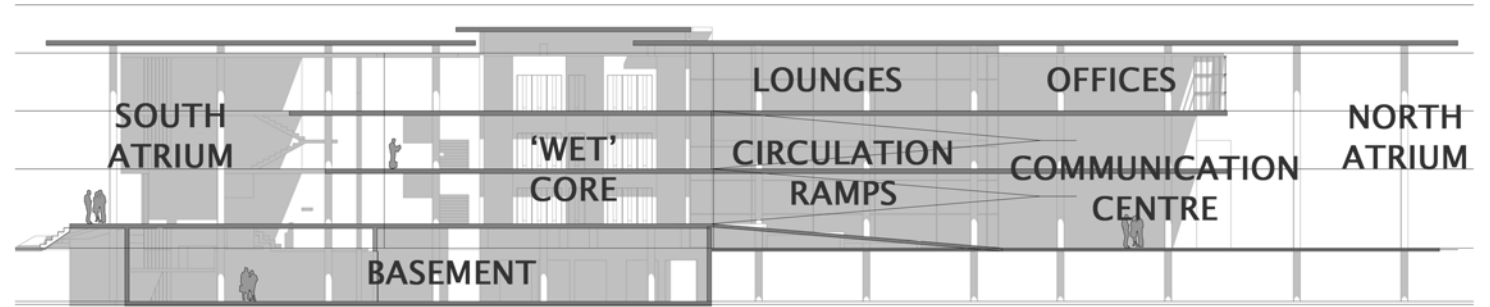


COMMUNICATION CENTRE • ROOF TERRACE • COFFEE BAR • CONFERENCE CENTRE • BICYCLE STORAGE
OUTDOOR MEETING SPACE • LEARNING KITCHEN • PRIVATE OFFICES • LANGUAGE COMPUTER LAB

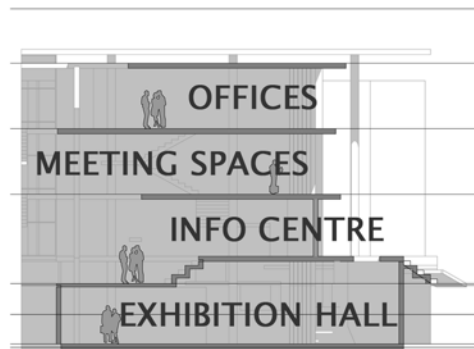




Initial ground floor plan indicating various programmed, semi-programmed, and un-programmed spaces.

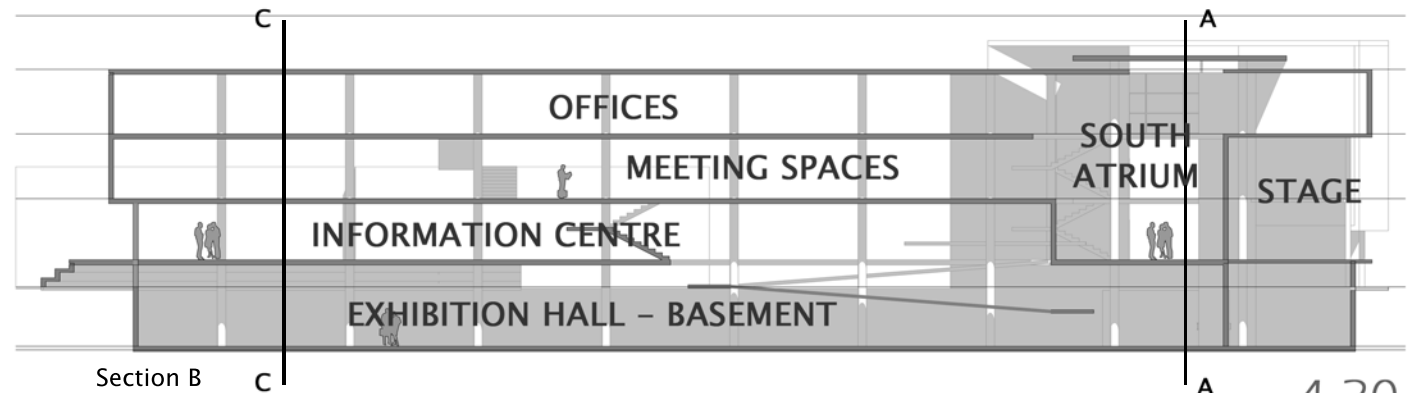


Section A

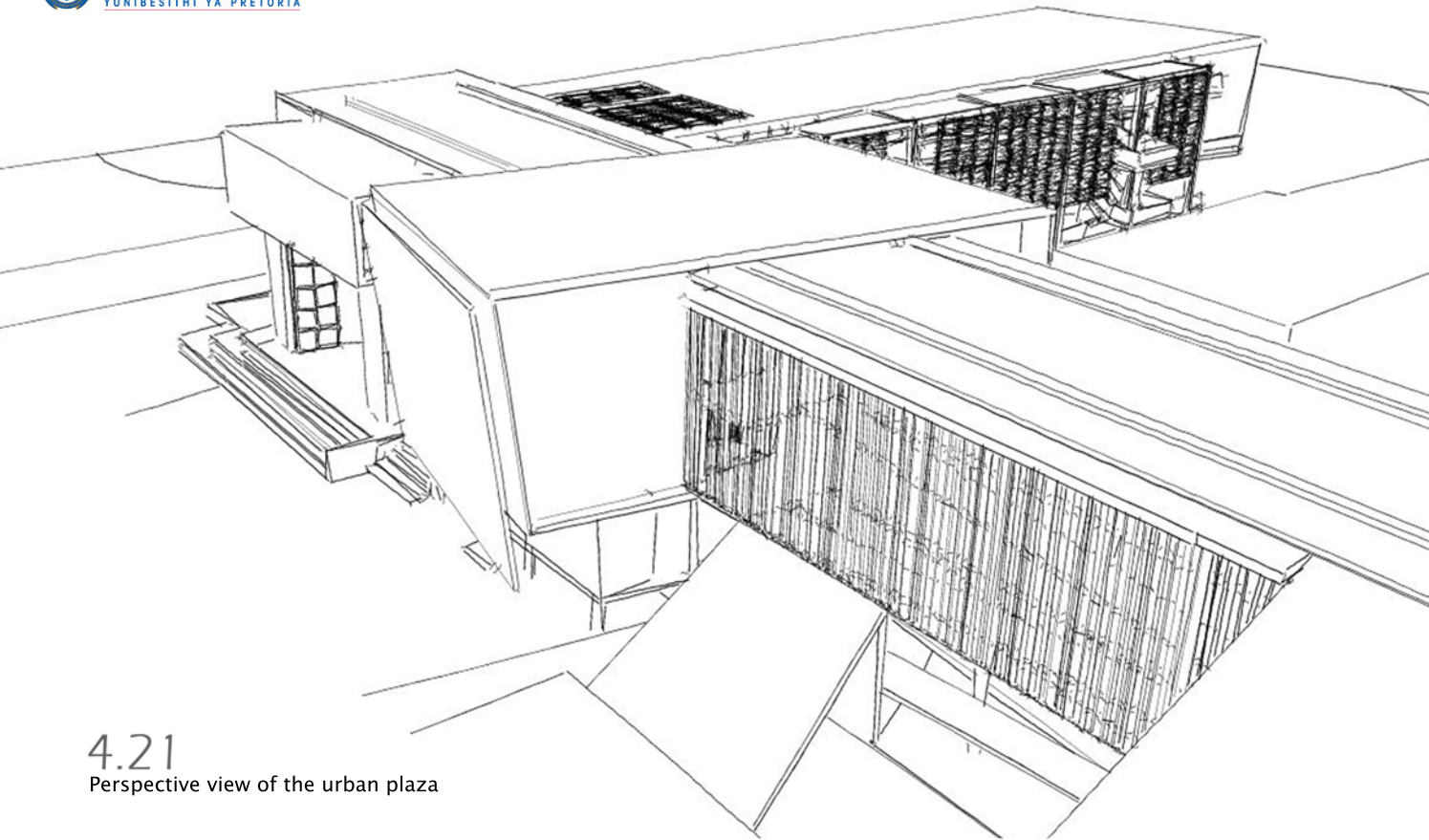


Section C

The floor plan on the adjacent page is the preliminary design footprint derived from the spatial development. The drawing indicates the relationship between existing buildings within the context and the proposed learning centre. It is also evident that the public spaces are designed around the pedestrian activity spine of the urban framework. The preliminary sections illustrate the relationships between the different sized volumes within the building, and how these volumes are connected by vertical and horizontal circulation.



Section B

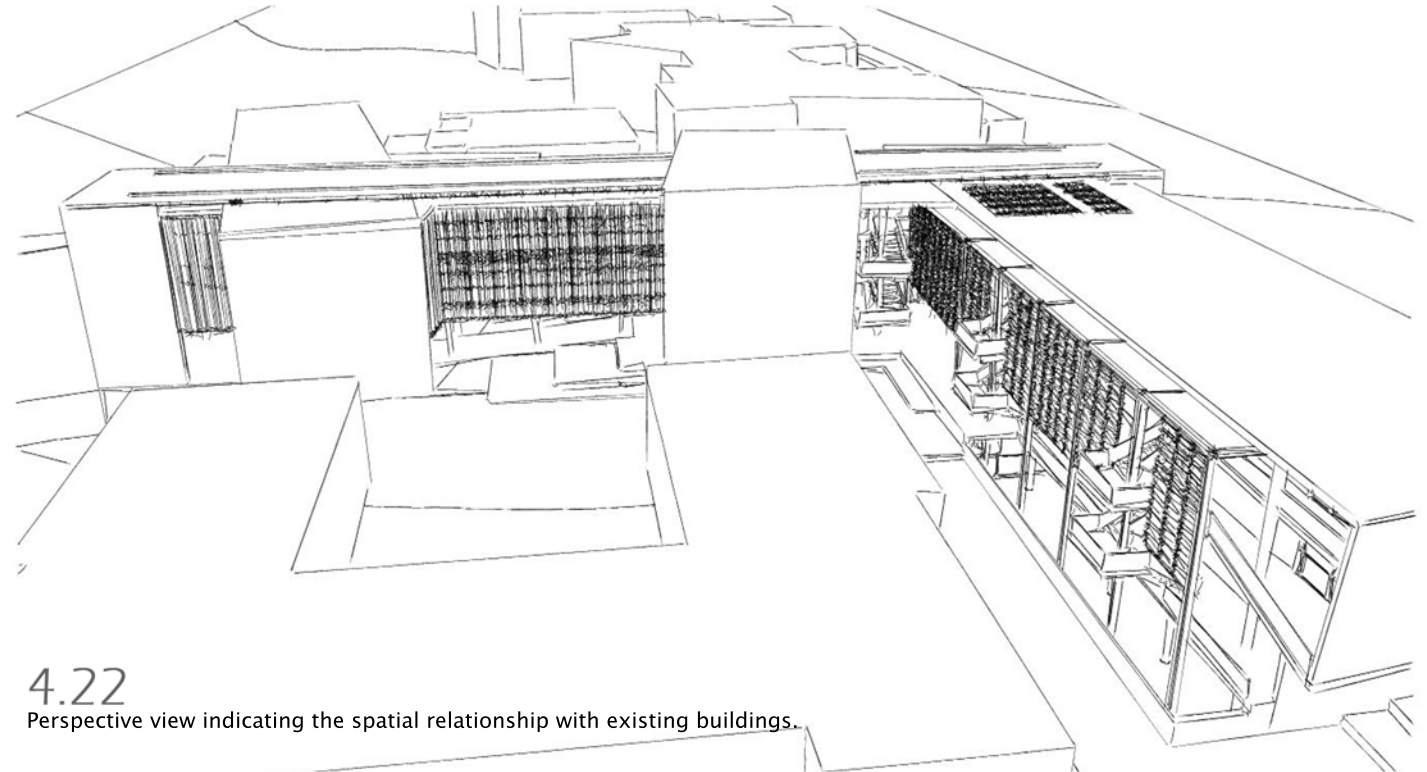


4.21

Perspective view of the urban plaza

Project Outcomes

The proposed building fits within the urban framework and becomes a container for interactive human activities in the landscape. This container provides the opportunity for intellectual interaction between the students on the university campus and will encourage them to engage in critical talking and networking sessions. These students will gather information from all senses, verbal and/or written expressions, reflection, observation, experience and reasoning. Here follows a list of different outcomes which the proposed project will strive to achieve:



4.22

Perspective view indicating the spatial relationship with existing buildings.

- learning a new language
- teaching communication skills to the community and to students
- the pedagogy of the contained educational environment
- interactive learning experience
- nodal information point for language training
- providing a platform for public forums
- intellectual interaction between students
- variety of social spaces
- space for intercultural chance encounters
- integrating the campus with the commercial precinct and beyond
- awareness of urban green architecture
- versatility and recyclability of concrete
- building element that provides a sustainable solution to real-world environmental challenges
- recycled building materials and energy conservation
- electricity generation and water treatment
- natural ventilation and daylighting
- views from all workstations

The Storytelling Meander



The distinctive northerly and southerly atriums are respectively entry markers to both the building and the urban plaza. The centrally located buildings with their strong north-south axes form the main focal point around which the concrete structure weaves. These buildings with different proportions provide the spaces where the functions of language education would be performed.

The surface of the concrete ribbon adds to the educational experiences of the building. The eastern digital media façade acts as an information billboard as well as a surface for screening local or foreign movies. The screen not only functions during the day, but also at night which provides a dual function by illuminating the urban space, which is an integral part of the night time animation of the university campus.

Located adjacent to the south entrance atrium, the events stage is for incidental daily events, casual performances or ticketed performances during festivals, and is also acoustically tuned to provide a space suitable for small to medium sized music and theatre ensembles.



The proposed urban plaza will lie in the centre of the project. 'Apparently the informal activities of shops and cafes contribute as much to the growth of students, as the more formal education activities.' (Alexander, 1977: p.438) *The space will not only functions as an urban plaza, but ultimately as an urban design research analysis precinct. This dynamic square enables a platform for built environment students and professionals to analyse the elements within the square in order to predict various human behaviour in and around the plaza. By documenting the urban space, the researchers have the opportunity to achieve the optimum results, and therefore produce design principals to be used as guidelines when creating public spaces.*



The surface meandering through the urban plaza is constructed with salvaged, crushed concrete elements from demolished buildings, and re-used as aggregates in order to cast the concrete blocks forming the surface. Like the engravings on the Rosetta stone, stone blocks which are inlaid on stairs and seating surfaces are inscribed with layers of typographically scaled and interwoven texts of various natural languages.

The video communication pods are fully flexible and adaptable, and therefore can easily be enlarged or moved for when the demand for video communication increases.



Vertical circulation is primarily by means of the gradual incline or decline of a series of ramps located in the centre of the building and also to the exhibition hall located in the basement. The walking surfaces of the ramps are inscribed with numbers and text from different languages enabling the user to move from one level to another while learning to count in these different languages.

Bridges and ramps throughout the building enhance the metaphor for linking languages and essentially weaving cultures together. The broad proportions of these elements enable the opportunity for pausing, thus a space for chance encounters to take place, and for the user to inscribe their own experiences of sharing, through shifting view lines and cross connections to spaces beyond.

The multi-purpose lounges are located adjacent to the series of ramps on each floor, where interaction; encounters; and shared teamwork takes place. On the first floor the lounge connects the language computer lab and the education cinema. The small 56 seat education cinema allows students or visitors to engage in local or foreign movies with subtitles as part of the language learning process.



The exhibition hall is located in the basement to allow for a more enclosed, calmer and darker space. Natural daylighting within the space is achieved by a series of scattered skylights punched through the plinth of the building, allowing light to filter onto the collections exhibited. The northern side of the hall is partially open to the sky in order to create an exterior exhibition space, and thus provides sufficient lighting for the interior spaces.

The majority of the floor area of the proposed building is semi-programmed flexible office and meeting spaces, enabling the user to choose the desired layout. These semi-programmed spaces are key to the successful development of language learning.

Quick access to upper and lower floors is enabled by exposed reinforced concrete staircases with reusable formwork redeployed as balustrades. The exposed staircases encourage users to go to the upper or lower floors of the building, a key element in orientating the user in the space.

The video communication pods are fully flexible and adaptable, and therefore can easily be enlarged or moved for when the demand for video communication increases. The building accommodates an adaptable data and electrical skeleton, running separate but parallel to one another in metal trays fixed to the concrete soffit of the structure.



Located adjacent to the south entrance atrium, the visitor's information centre enables visitors and regular users to easily access the space in order to make an enquiry. The glazed southern façade of the centre functions as a plinth of graffiti for public expression, bringing a kaleidoscope of colours into the interior of the visitor's information centre. The centre also provides a secure entrance to the exhibition hall below.

The building with surrounding social spaces is in essence multiple zones functioning as one spatial figure: a geometric array of configurations and arrangements, from small to medium scale public gathering to one-on-one engagement to intimate contemplation and relaxation. A space designed for the vocal human.