

d e s i g n f r a m e w o r k _

5.1 introduction_

Tadao Ando speaks of the architecture which the site itself is seeking in his article Towards New Horizons in Architecture (NESBIT 1996:456). Based on the analysis of the proposed site, the strong historical and environmental characteristics required a more responsive architecture which would celebrate and respect the context.

A human rehabilitation facility is chosen to achieve the objective in this dissertation. The word rehabilitation according to the dictionary means returning to a previous state of being. Sport rehabilitation requires physical and psychological treatment for the athlete to establish this state. Objectives for rehabilitation would differ for each case, but ultimately the path preferred would be for complete reconditioning of the athlete - allowing the athlete to perform and function at their previous state of being. The meaning and reality of rehabilitation, ultimately means to form a new state of being. For every athlete would carry with them the scar tissue of their accident, be it physical or psychological. Scar tissues act as growth stimulators in the athlete's life. The primary function of the rehabilitation would be to help the athlete to deal with these problems. Finally the athlete would need to accept their scar tissues and at this point the athlete establishes a new state of being.

Site rehabilitation would require the same type of perseverance, where the scar tissue needs to be identified and dealt with accordingly. The landscape typically includes the buildings and the people that uses it. Acknowledging the historical background and analysing the current state of the landscape. The aforementioned allows a new relationship between man and nature in which both are required to reflect on their past and redefine their animation within the given context.

To achieve this, three design guidelines are defined and used to direct and define the proposed architecture. These principles are measured and defined by in-depth evaluation of existing architectural responses in a local and international context. This will allow for a more responsive design solution within the given context and hopefully also guide other designers in their search for appropriate responses.

5.2 precedent studies_

To understand the relationship between architecture and its assigned activities within a specified context or environment required the in-depth study of current architectural approaches. The architectural works (referring to the Hammanskraal Campus, Hammanskraal,



figure 5.1

Tshwane) of local architects such as Allan Konya and Schalk du Toit were evaluated considering that they were working in a common context. Further local evaluation was based on the work (referring to the Coromandel estate, Lydenburg, Mapumalanga) of Marco Zanuso an Italian architect hired to do a homestead for a local family. His architectural solutions were based on his understanding of the environment in a fairly critical regional matter.

Internationally, the works of architects (referring to Lake Flato, Glenn Murcutt, Geoffrey Bawa, Enric Miralles, Alvar Aalto and Mies van der Rohe) with their contextual and regional design methods were evaluated to optimise the resolution of the task at hand. The study of the placing of the Kandalama hotel (referring to Dambulla, India) within the landscape as it reflects the identity of the environment in plan and in section. This indicates the architects understanding of the site as he uses the building to extend and emphasise the context in a responsive design solution. Enric Miralles uses radical tectonics to highlight the identity of the landscape, expressing the prominence of forms and textures, obtaining stronger characteristic spaces.

Glenn Murcutt and Mies van der Rohe graciously place their buildings on the landscape indicating their respect towards the environment. The way the Farnsworth House (Plano, Illinois, United States of America) gently sits within the context as well as the simplicity of the building, accentuate

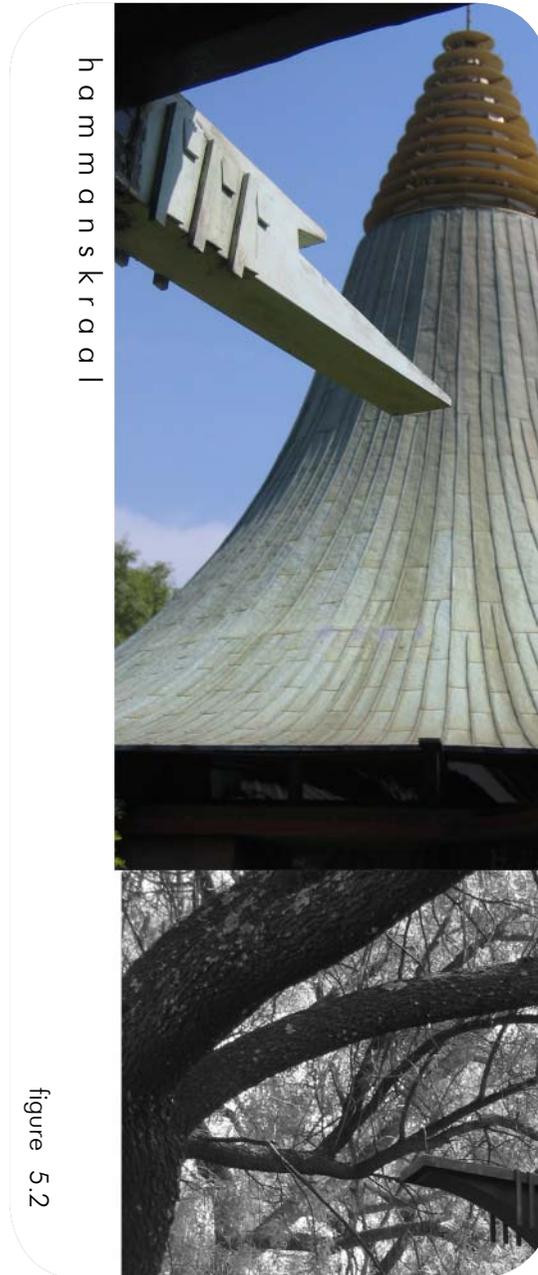
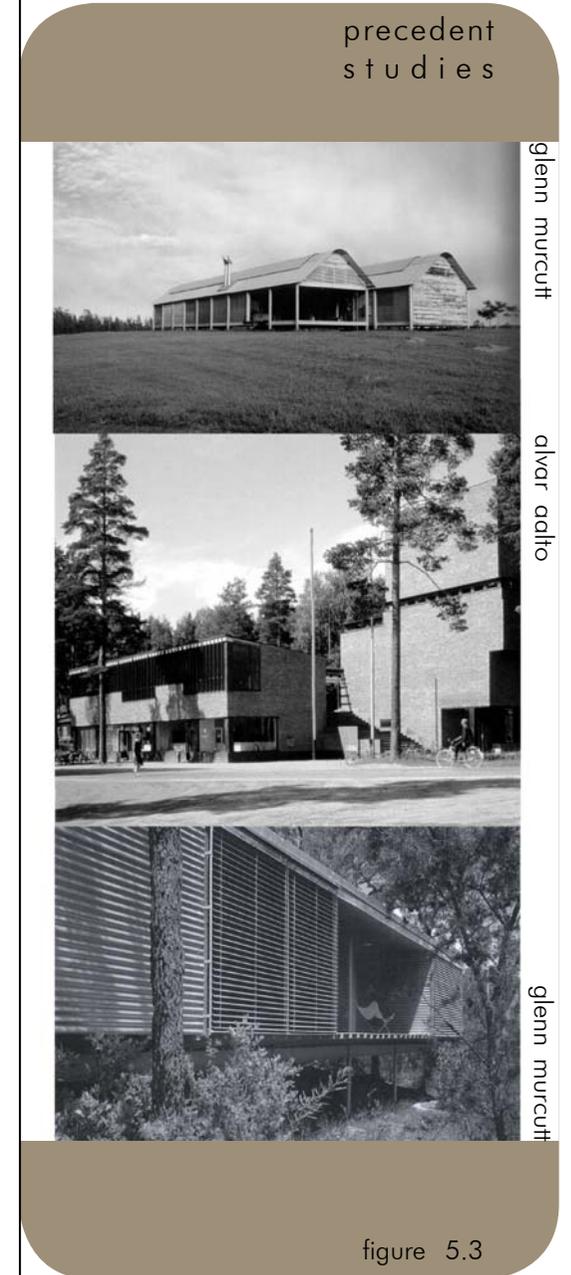
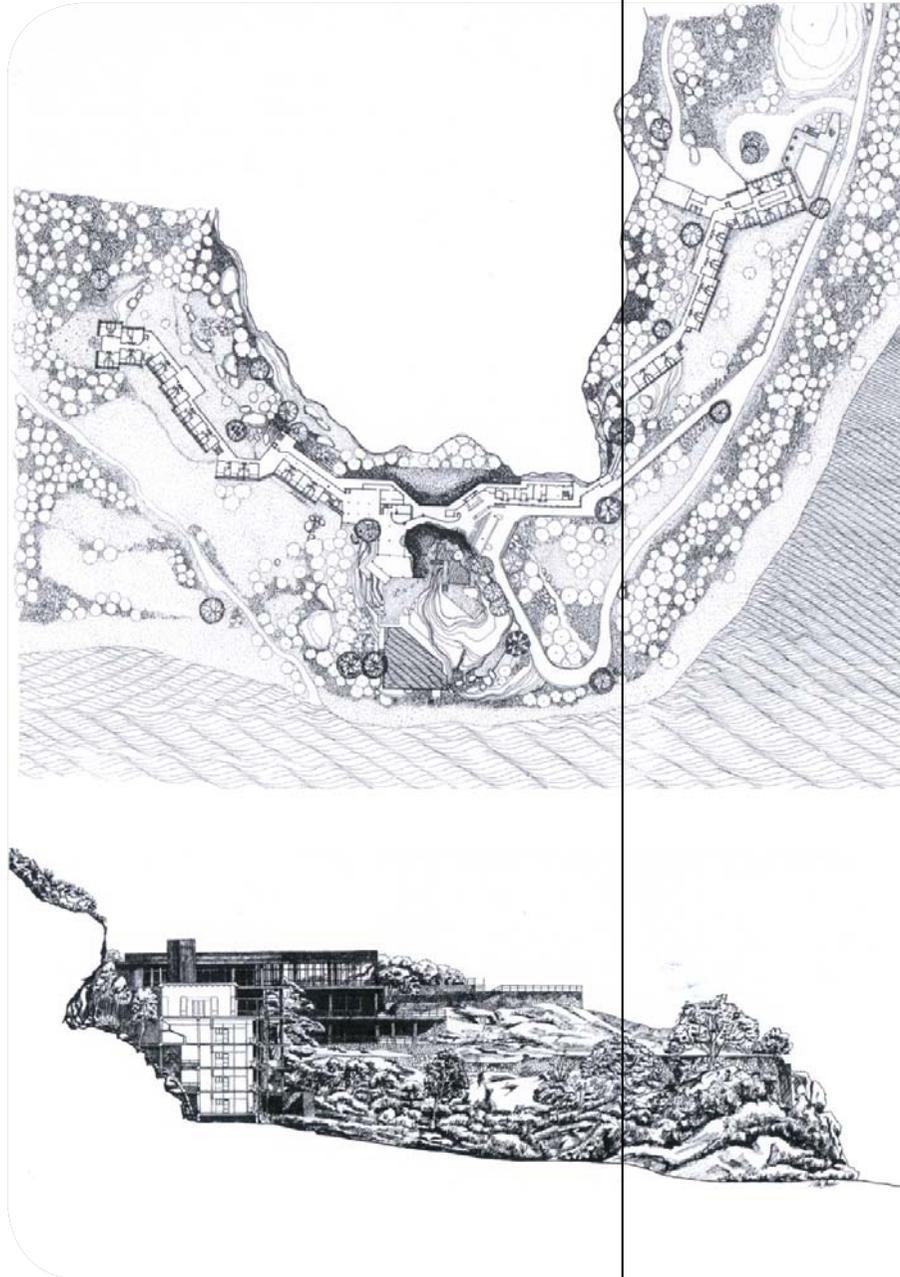
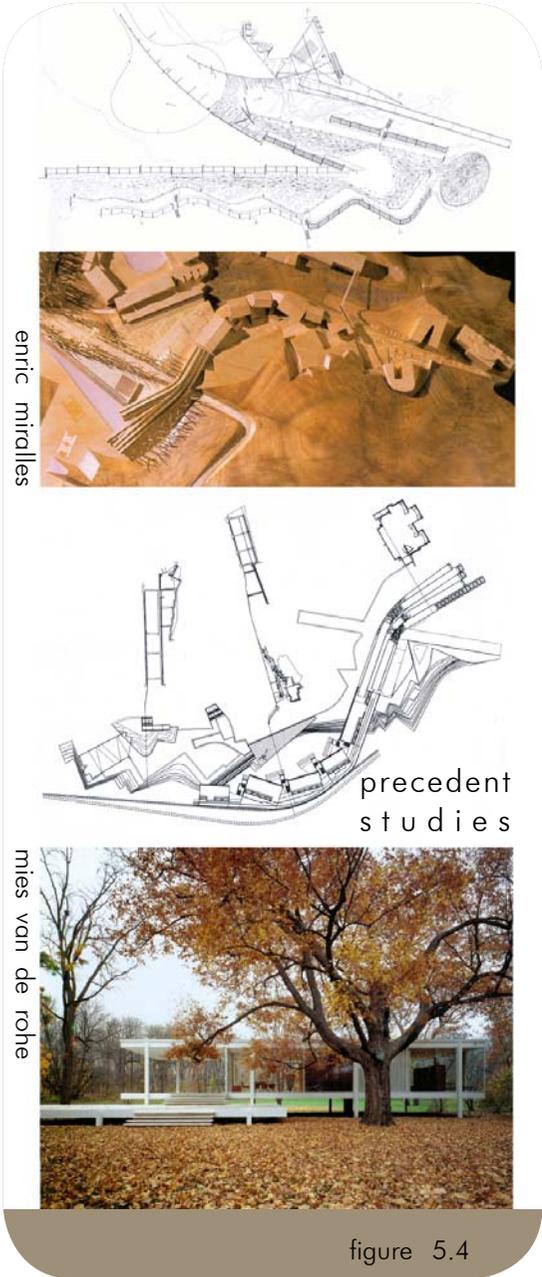


figure 5.2



precedent studies

figure 5.3



the landscapes qualities. Level changes do not prevent the internal spaces from opening up toward the landscape. Glenn Murcutt uses economical structures which respond perfectly to the climate and environmental characteristics of the site.

And finally the uncomplicated architectural works of Alvar Aalto were evaluated. His architectural solutions based on the climatic requirements and the simple use of natural materials and undulating lines was investigated.

5.3 design principles_

2.1_ activities and movement

"He would claim that the problem is not with the space, but with its programming in terms of function rather than event." (NESBIT 1996:157)

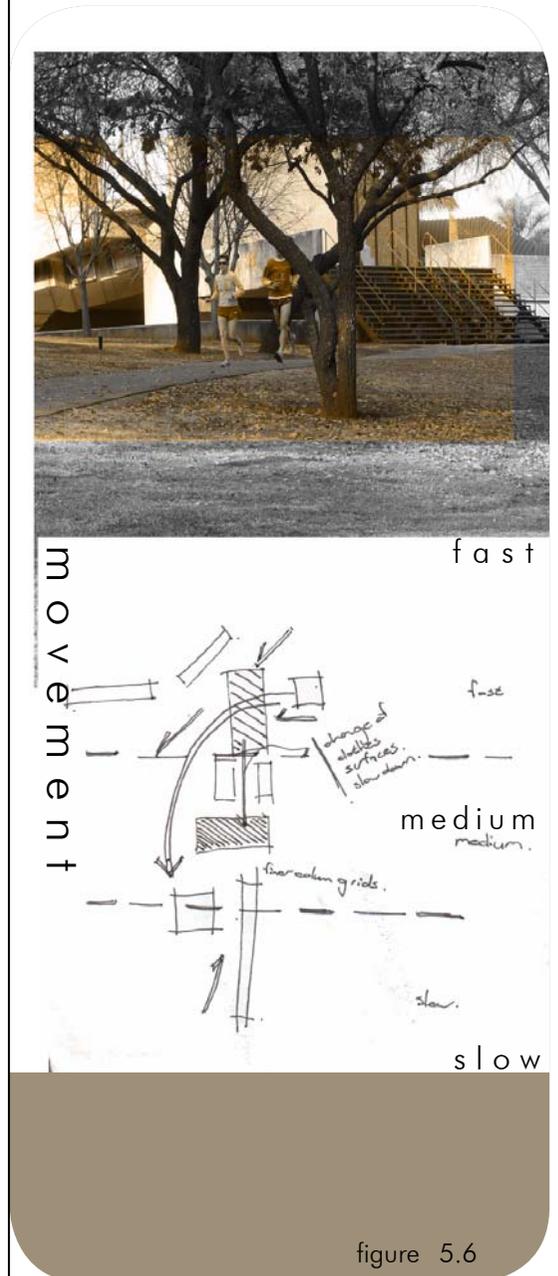
"The sole judge of the last term of the trilogy, 'appropriate spatial accommodation' is, of course, the body, your body, my body – the starting point and the point of arrival of architecture. The Cartesian body-as-object has been opposed to the phenomenological body as subject and the materiality and logic of spaces. From the space of body to the body-in-space

– the passage is intricate. And that shift, that gap in the obscurity of the unconscious, somewhere between body and Ego, between Ego and Other..." (NESBIT 1996:159)

"Bodies not only move in, but generate spaces produced by and through their movements. Movements – of dance, sport, and war – are the intrusions of events into architectural spaces. At the limit, these events become scenarios or programs, void of moral or functional implications, independent but inseparable from the spaces that enclose them." (NESBIT 1996:160)

i. spatial character_

The three images (fig.5.7) of the two athletes running through the site best describe the inherent characteristics of the place. It also illustrates the endless possibilities of movement within the given context. Thus the changes in activity and movement can be directly related to a change of spatial experience. The movement is not confined to a single space but rather an amalgamation of intricate spaces. These spaces consist of indoor, outdoor and infill spaces and allows alternating movement through them.





running

along

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path

the

athletes

movement



figure 5.7a

creates

various

transcending

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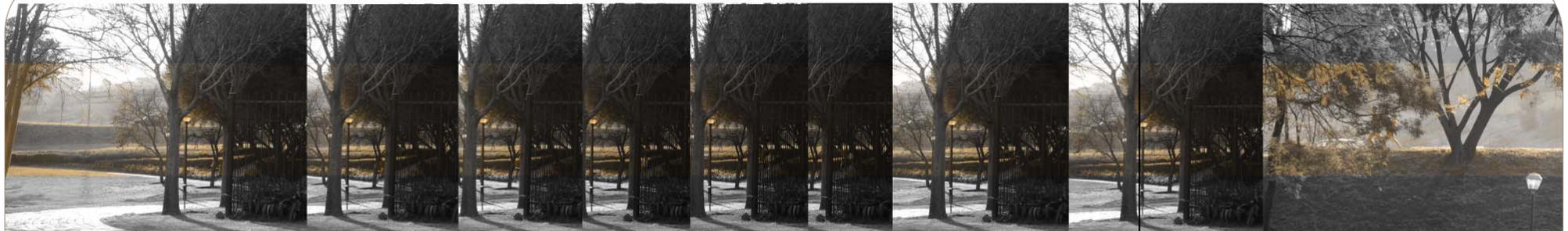


figure 5.7b

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stitched

together

by

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undervalued

activity

figure 5.7c

ii. programme_

Bernard Tschumi writes that space is formed by events such as theatre and sport, and substantiates my choice of building for this particular site (NESBIT 1996:160). The existing activities will be combined with new activities allowing greater movement and inter-relation between activities. All of these activities are based on human body interaction, as passive and active movements are placed alongside each other. Most of the activities require specialised equipment but are open to be performed both indoor and outdoor. The opportunity arises then to allow for a range of integrated spaces which would accommodate these activities and also function as flexible service space.

This broadly describes the theoretical functioning of the building as it should be devised on the site. The detail of the programme is based on thorough investigation of similar facilities which consisted of the High Performance Centre on L.C. De Villiers and other commercial institutions such as the Virgin Active Group. Water activities were chosen as the centre point of the programme accommodated by various indoor and outdoor training nodes and living areas. All of these are serviced by specialised and separate service areas obliging to the required demands. This programme was used as the baseline to which further investigation could be measured.

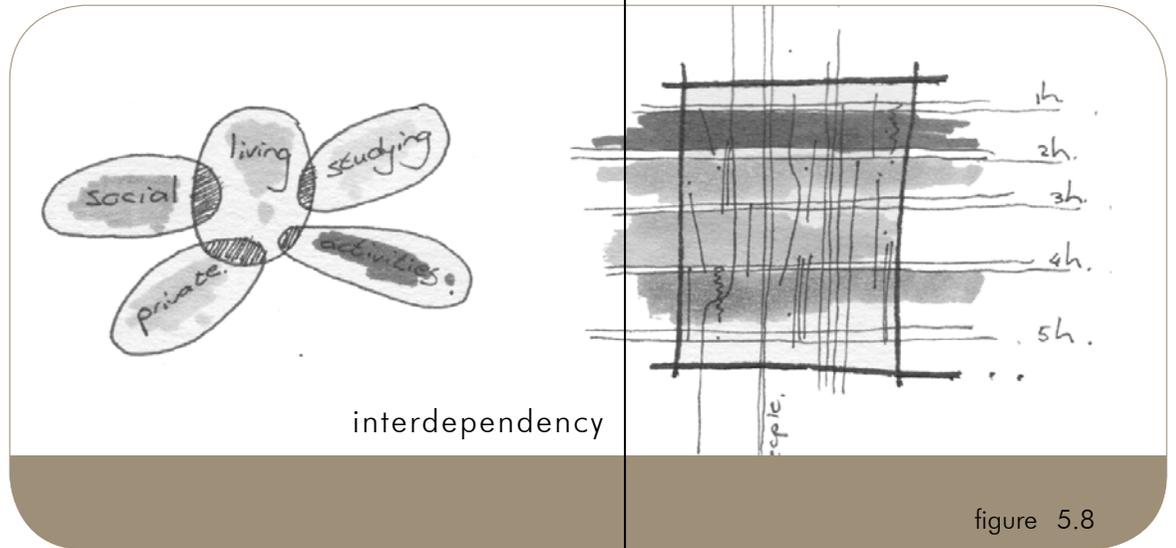


figure 5.8

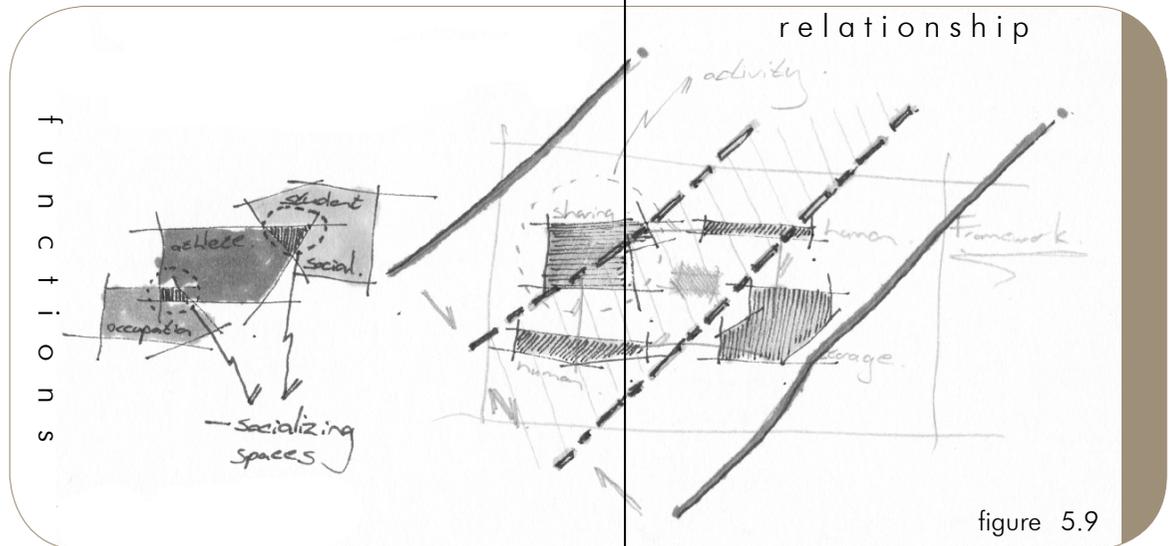
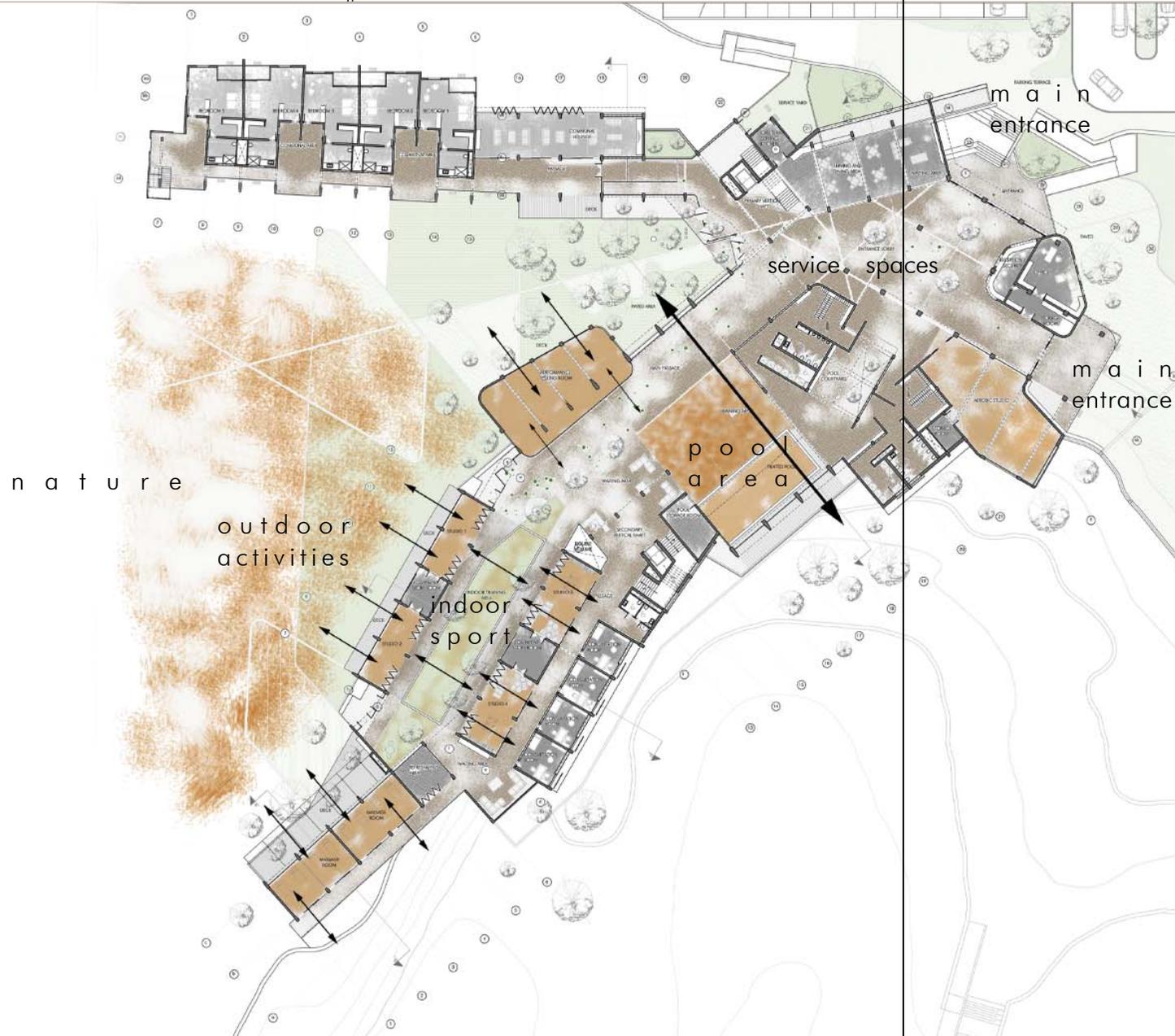


figure 5.9



concept programme implementation

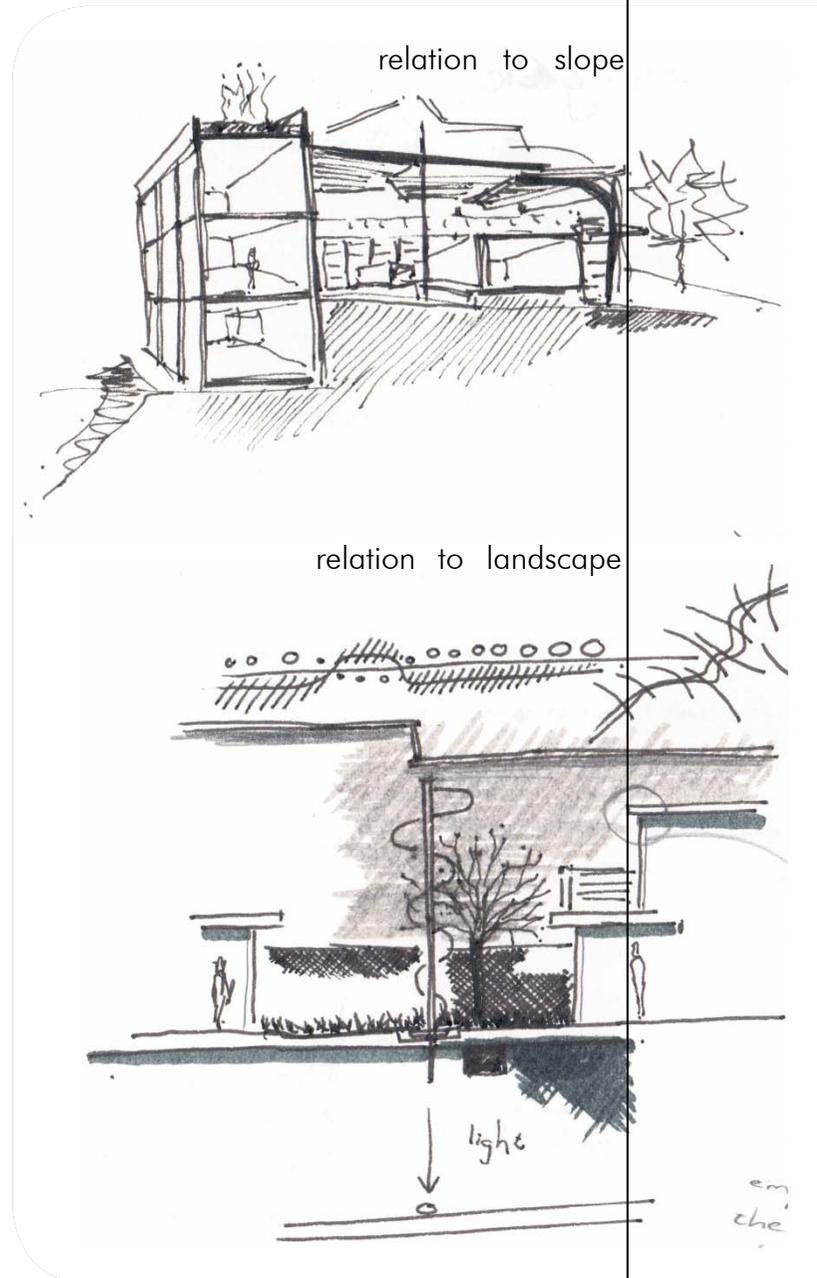
figure 5.11

2.2_orientation

“The presence of architecture – regardless of its self-contained character – inevitably creates a new landscape. This implies the necessity of discovering the architecture which the site itself is seeking.”
(NESBIT 1996:461)

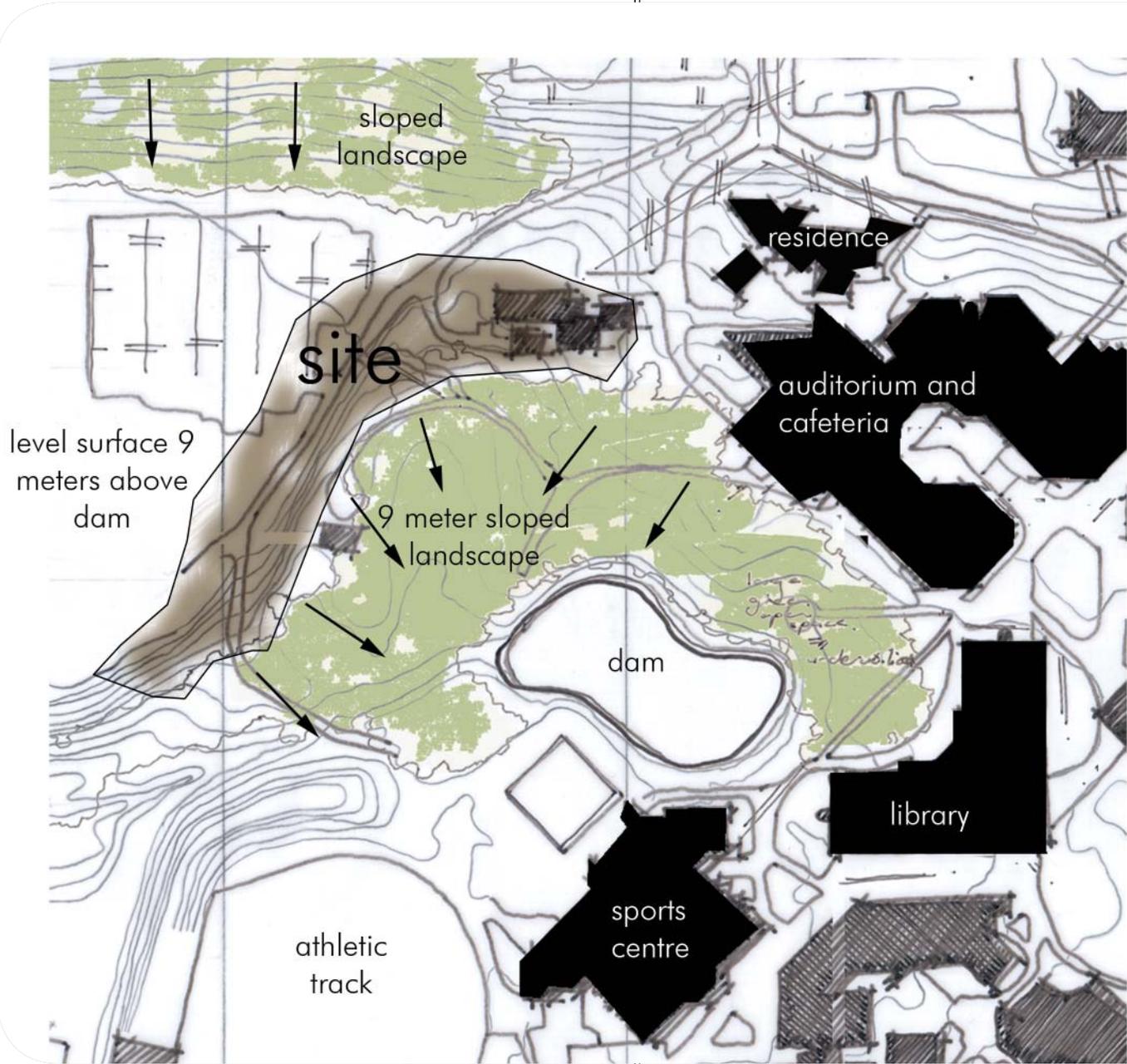
“.., the architecture’s nature is not always found within building. Events, drawings, texts expand the boundaries of socially justifiable constructions.”
(NESBIT 1996:460)

In pursuit of an architecture suited for the proposed site, the site’s formal characteristics must be identified. These characteristics would be cultural traditions, the urban structure, natural environmental qualities, climate, and the living patterns. In defining the orientation for this - given the project - the emphasis fell on the particular characteristics of landscape, climate and social intervention. The appropriate logic was formulated based on these criteria and functioned as guideline for the architecture.



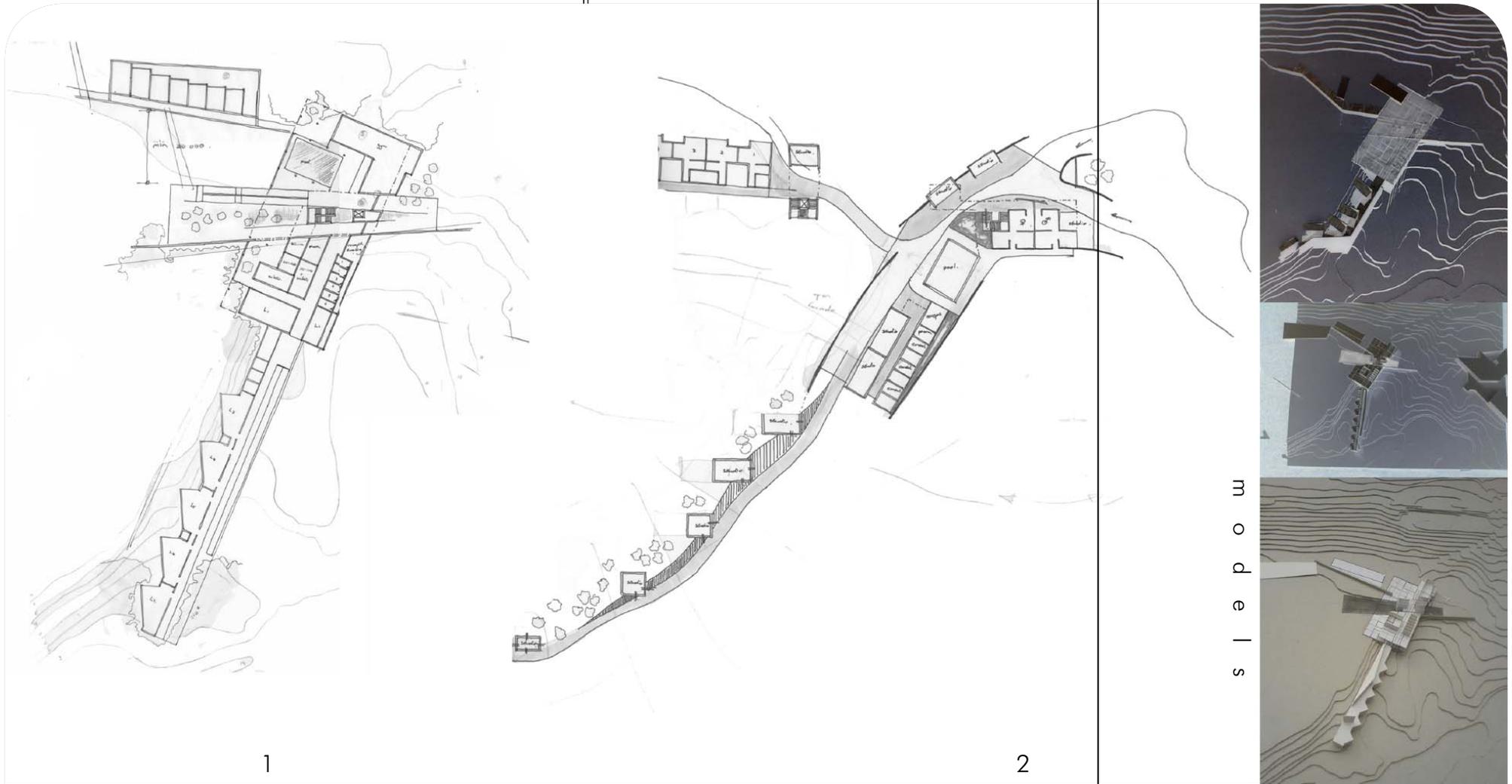
spatial
exploration

figure 5.12



site proposal

figure 5.13



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design exploration

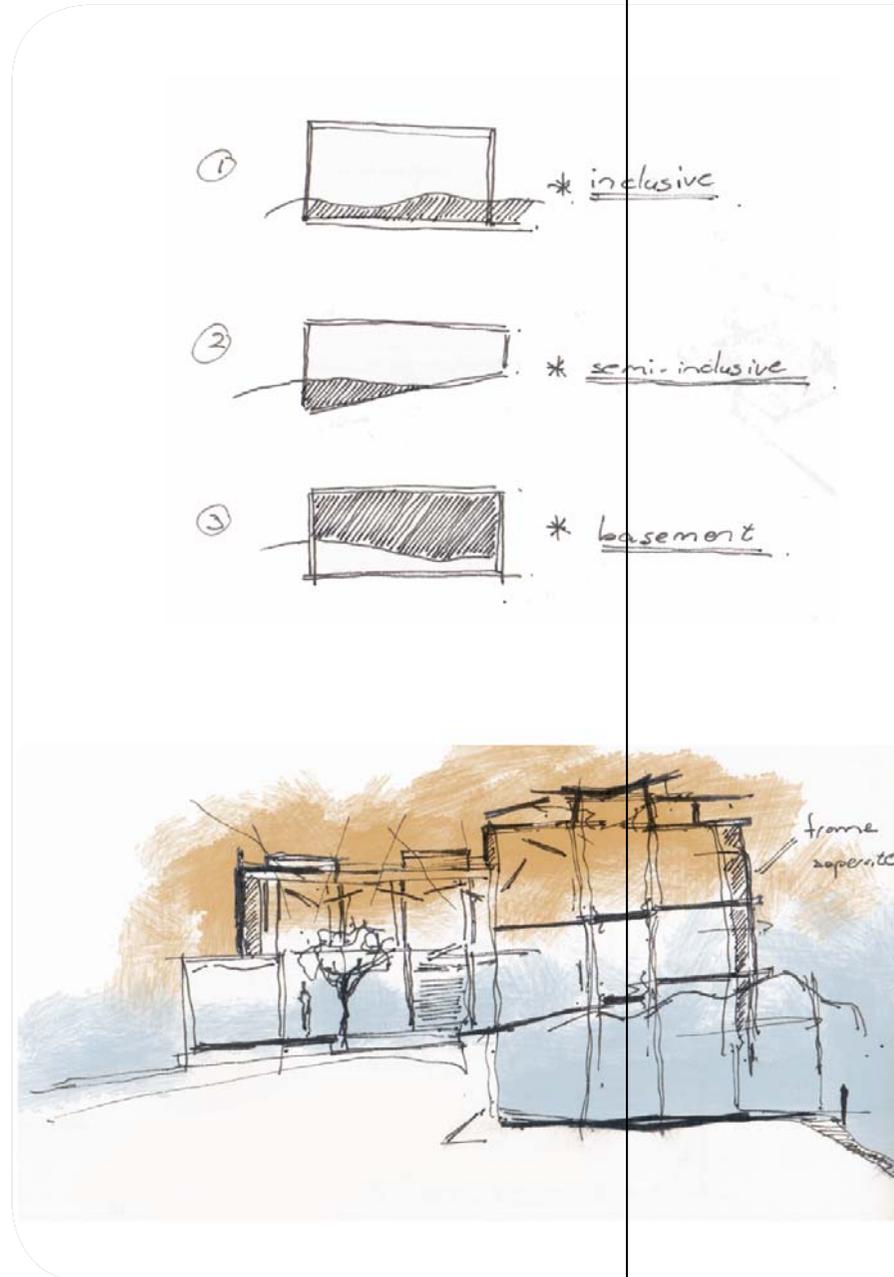
figure 5.14

i. landscape_

The design exploration required an understanding of the landscape's form and language. Contours represent the landscape's identity in plan and section. These contours indicate biodiversity, water articulation and the history within the context. Furthermore the landscape consists of an external landscape as seen from the particular site and the internal landscape as is seen from the surrounding context, and the inherent identity in both was of the utmost importance in the formulation of the proposed architecture. The form of the building explored this language and came to represent it in a new landscape form.

ii. climate_

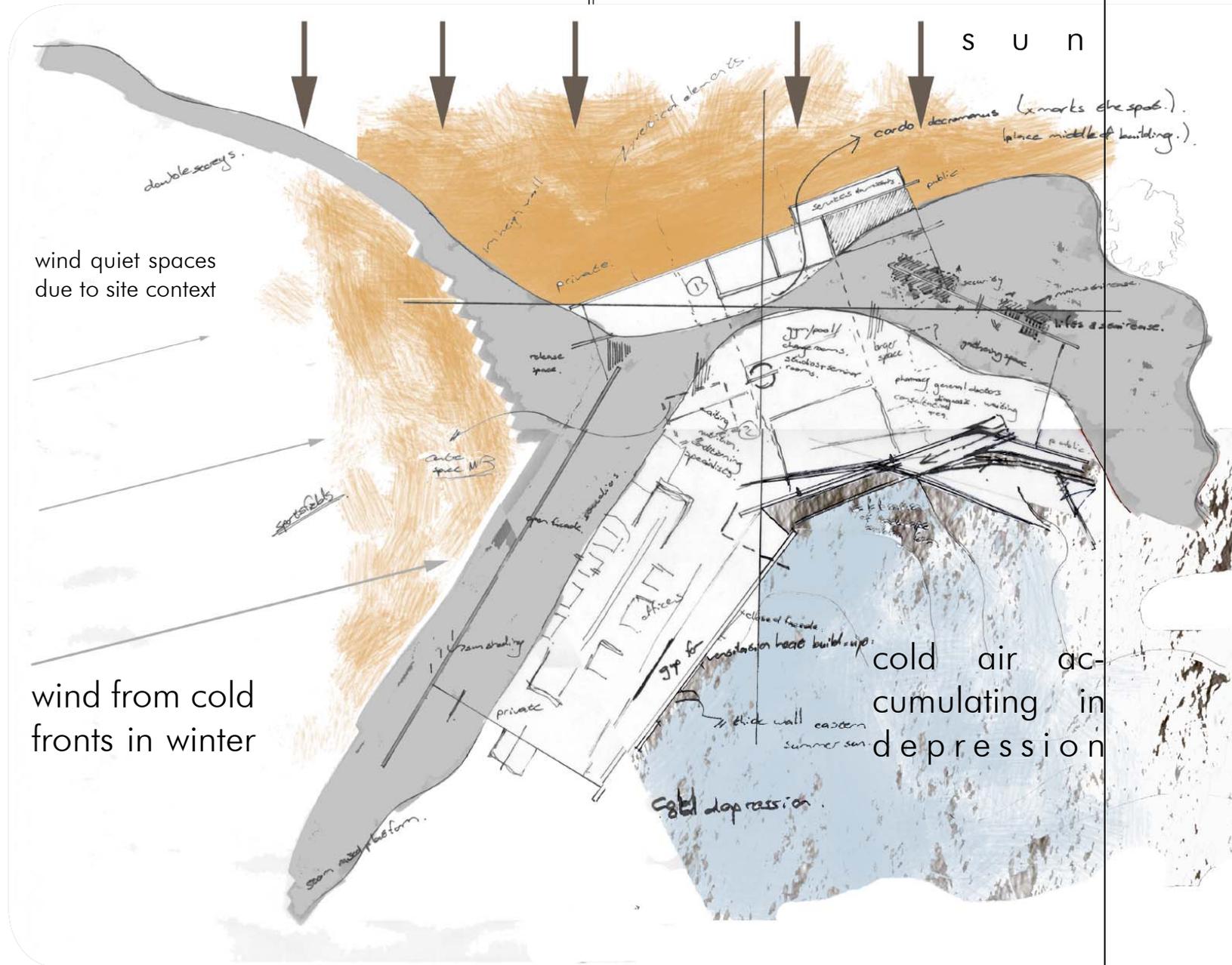
Contextual and critical regional design is deeply rooted in climatic responses and a similar response was chosen for the proposed architecture. This required an understanding of the climatic factors which would ultimately influence the design. Due to the form of the landscape wind is not a concern for most part of the year. And the correct landscaping would be sufficient in solving this problem. Sun paths were crucial to the design orientation due to large shadows created by existing buildings and the site location on a southern ridge. Temperature fluctuations on the site as a result of a water mass and land depressions were another concern to



l a n d s c a p e

c l i m a t e

figure 5.15



c l i m a t e

figure 5.16

the design of the building. All of these points were used as indicators and helped direct the design process towards a more responsive solution.

iii. social_

The two primary social indicators identified are recreation and education. These indicators are then broken down into smaller sub-categories. By identifying the various social spaces on the site a more accurate building placement will be achieved. Typically, activities are placed according to their requirements in regards of public versus private space.

This will allow the design of new activities to respond to the existing context with the least force. Merging the existing social context with new social activities will create a new relationship. Through this new relationship a more intricate social network could be maintained which is beneficial to the existing social structure.

The main objective is focused on defining the crucial edge that exists between the primary indicators. The design orientation will attempt to define this edge through its form and functions. And at best resolve the dysfunctional relationship that currently exists.

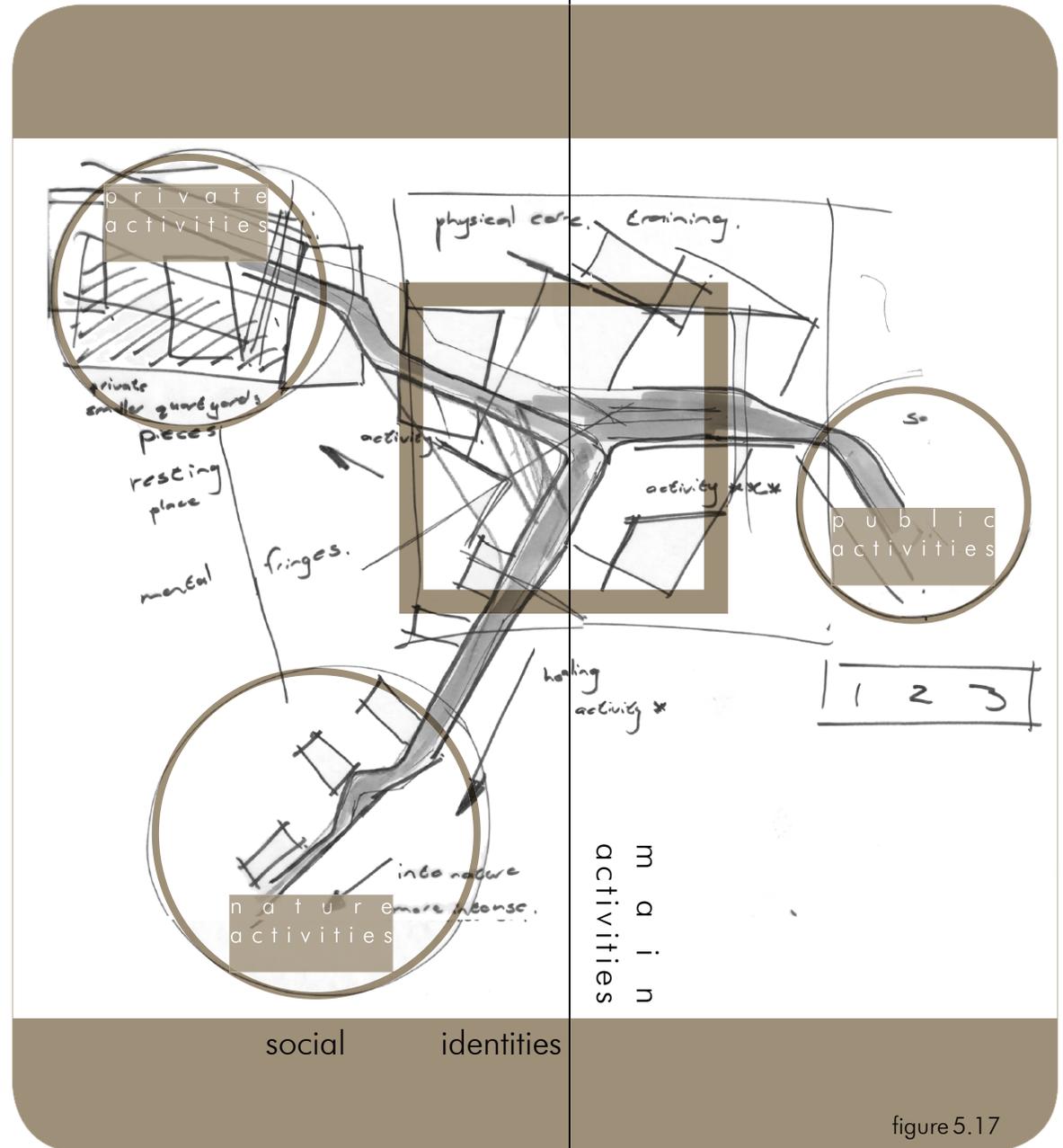


figure 5.17

2.2_solids and voids

“He proposes that an alternative way to look at “the materiality of architecture... is in its solids and voids, its spatial sequences, its collisions. This poetic possibility emphasizes the choreographic aspect of the body’s experience of architecture, which he sometimes describes as “cinematic” in order to stress movement and its temporal dimension. Significant to his proposal for architecture “as event” is the idea that bodies construct space through movement.” (NESBIT 1996:456)

All of the above mentioned principles are finally expressed through the use of solids and voids. Solids and voids function as the glue which connects and expresses the architectural design in form and materiality.



v o i d s

s o l i d s

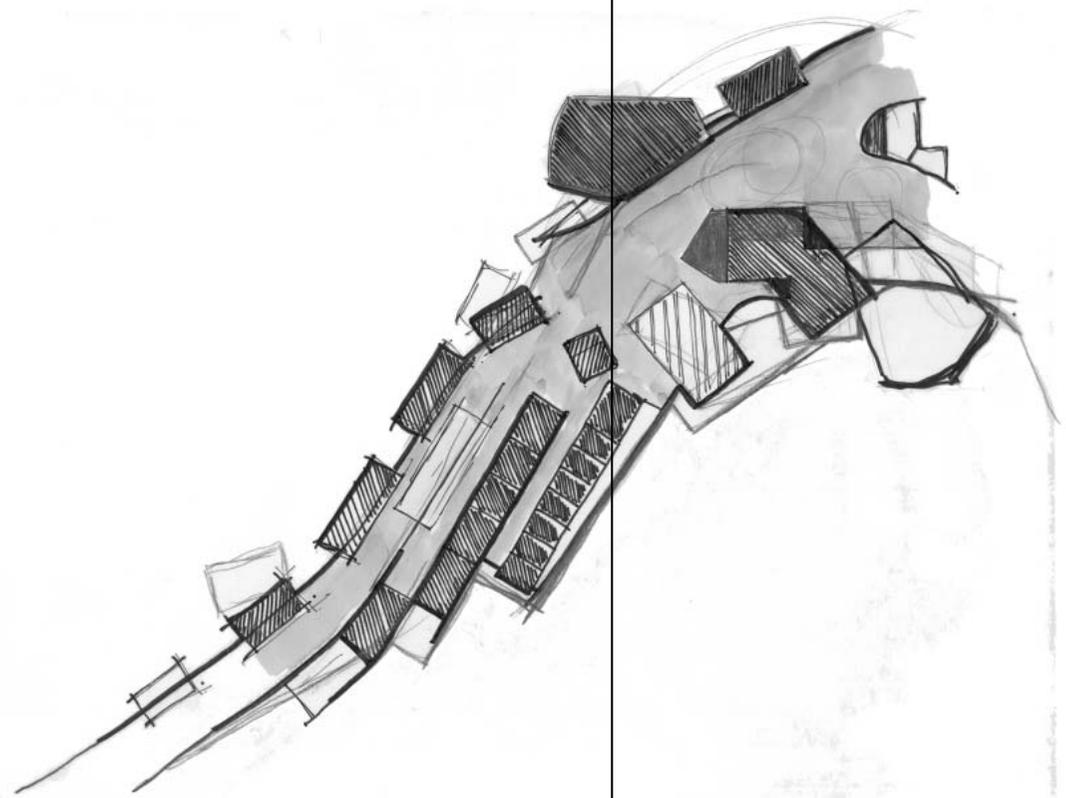


figure 5.18

solids
—
voids

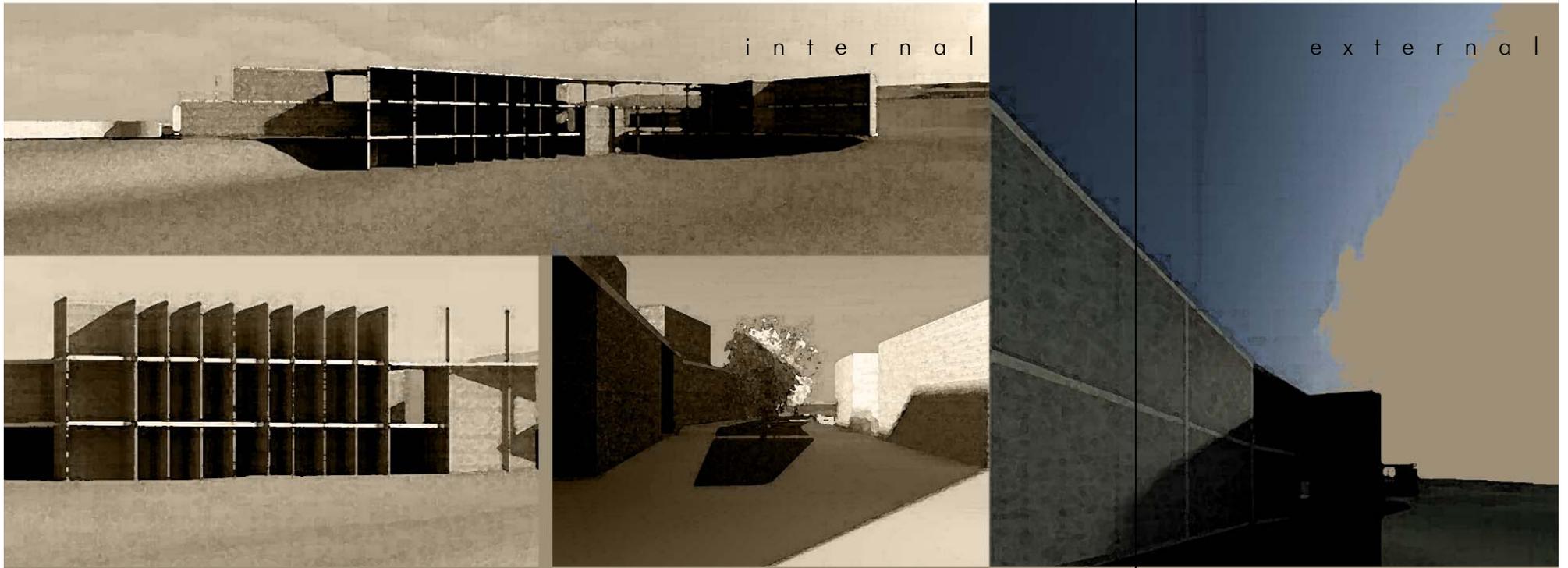


figure 5.19

5.4 conclusion_

The proposed architecture illustrates not just a product, but more precisely a process of trial and error. And doing so expresses a new landscape through architectural means, with an architecture derived from the fundamental principles of regionalism and phenomenology.

The designed rehabilitation centre will be a catalyst for capturing the essence of the site and defining the lost spaces. The centres design and activities attempts to re-define the current relationship of the existing campus in relation to other campuses, and even more so to define the relationship between the campus and the landscape. This will be achieved through recreation and sport rehabilitation activities.

“Pretoria regionalism...reflects a particular response to nature and landscape through the economical use of naturally available and industrially produced materials with an empirical response to climate...” (FISCHER 1998. 123)

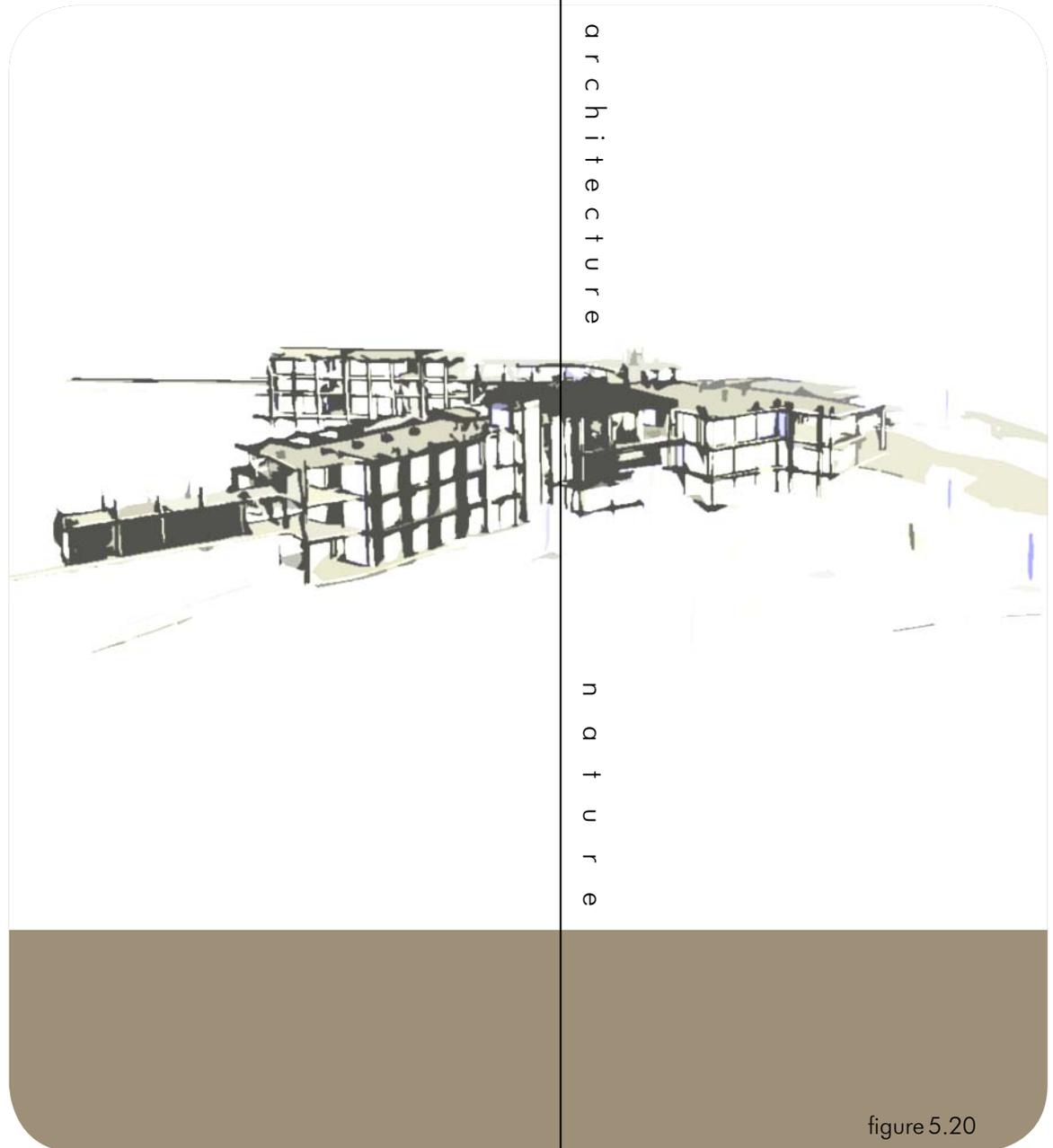


figure 5.20

airial _ view south west

defined edge

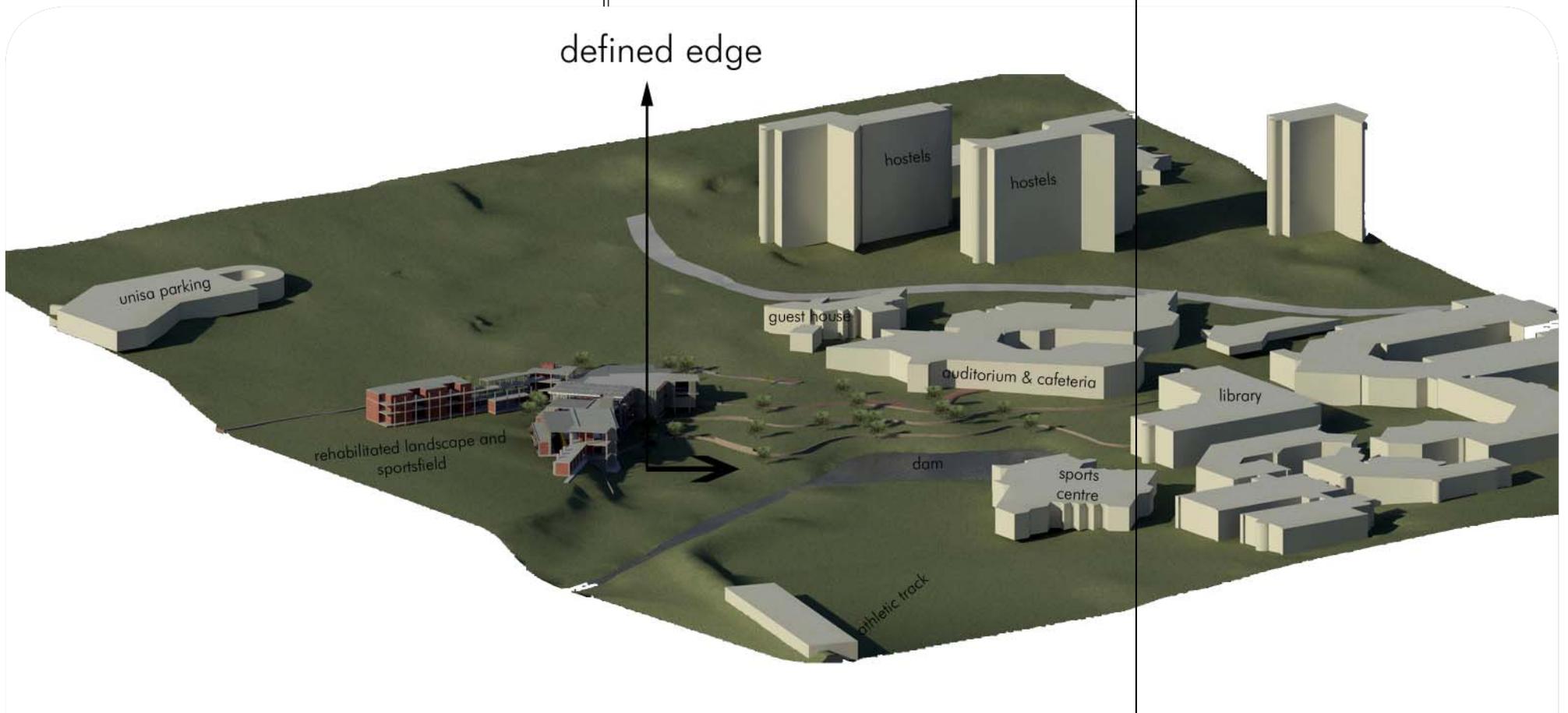


figure 5.21

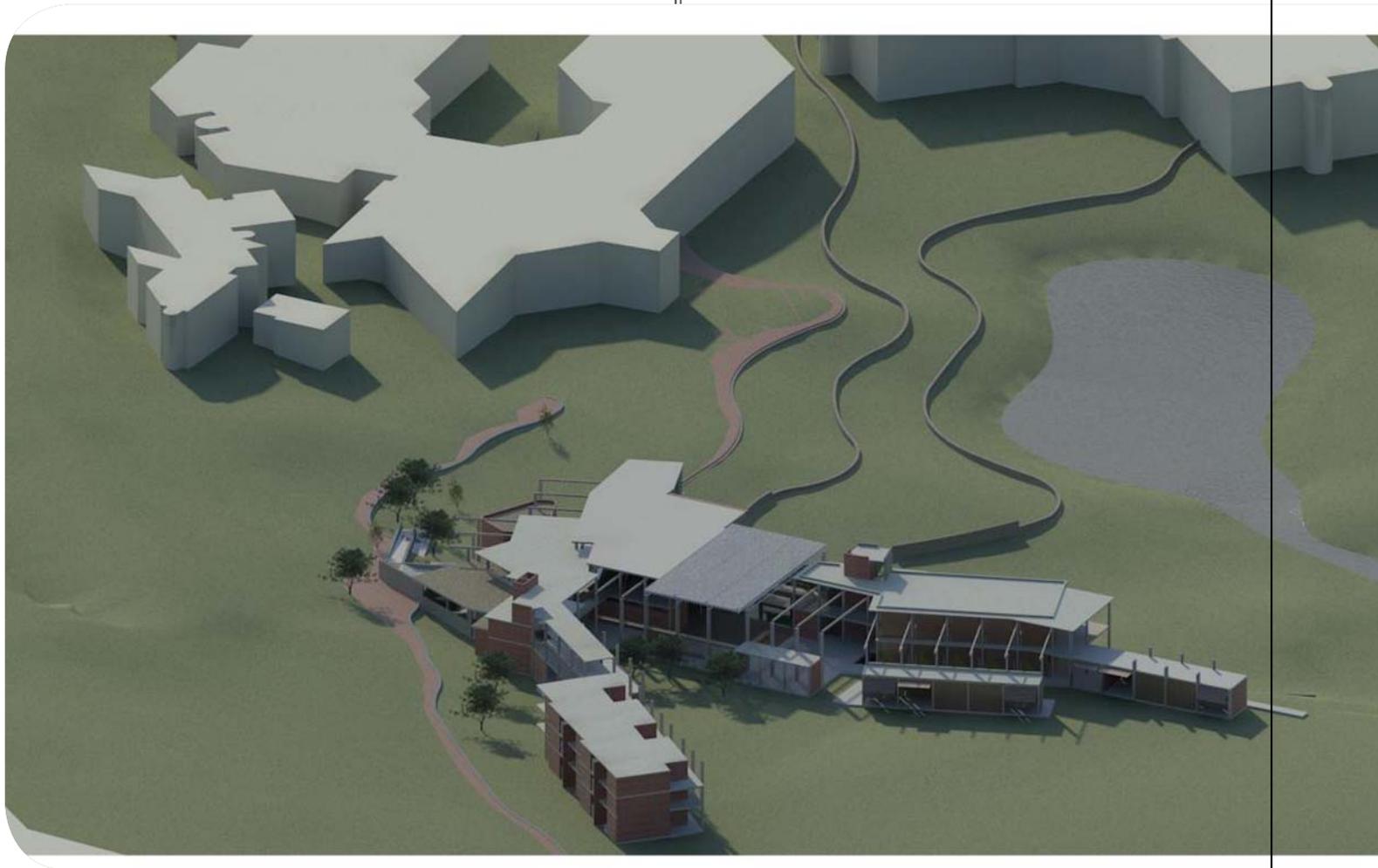


figure 5.22

south _ east _ elevation



figure 5.23



design
—
section



figure 5.24



figure 5.25