ABSTRACT

This proposal develops a design for an Urban Outward Bound Centre for youth. It is theorised that youthful participation in programmes aimed at resolving issues in their process of maturation would be more suitably conducted in static spatial experiences that, while static, give the feeling of the contrasting opposite, that of feeling ‘dynamic,’ varied and energetic and thereby congruent with the youthful participants. Research has developed a number of spatial devices that can be characterised by the word ‘contrast’; order and disorder, contrast in scale, interiority and exteriority, angularity to rectilinearity, orthogonal to curvilinear, light and dark, and a range of textures from smooth to rough. The design also explores how socially dynamic as well as private and calmer static spatial experiences can add variation and balance in an alternative learning environment. The action-based activities of Outward Bound have also developed a variation of static yet emotionally dynamic elements that can be characterised with the concept of challenge.
Contents

1.0 INTRODUCTION .................................................................................................................................................................................. 1
  1.1 RESEARCH QUESTION .................................................................................................................................................................. 1
  1.2 RESEARCH PROBLEM / OUTLINE ............................................................................................................................................... 1
  1.3 OBJECTIVES .................................................................................................................................................................................... 3
  1.4 SCOPE AND LIMITATIONS .......................................................................................................................................................... 3

2.0 CURRENT STATE OF KNOWLEDGE .................................................................................................................................................. 5
  2.1 SPATIAL EXPERIENCE .................................................................................................................................................................... 5
  2.2 SPATIAL SEQUENCING .................................................................................................................................................................. 6
  2.3 ORDER ............................................................................................................................................................................................ 7
  2.4 DISORDER ........................................................................................................................................................................................ 9
  2.5 SIX CONTRASTING DEVICES ...................................................................................................................................................... 11
    Contrast in Scale .................................................................................................................................................................................. 12
    Interiority and Exteriority ..................................................................................................................................................................... 14
    Angularity to Rectilinearity ................................................................................................................................................................. 15
    Orthogonal to Curvilinear .................................................................................................................................................................. 16
    Light and Dark .................................................................................................................................................................................... 17
    Smooth to Rough (range of textures) ............................................................................................................................................... 18
  2.6 OUTWARD BOUND .......................................................................................................................................................................... 19
    Anakiwa (rural) .................................................................................................................................................................................... 20
    USA (urban centres) ........................................................................................................................................................................... 20
    Rural to Urban ..................................................................................................................................................................................... 21
# Table of Contents

2.7 LEARNING SETTINGS .................................................................................................................................................................................. 22
  Alternative Learning ........................................................................................................................................................................................................22
  Social and Private .........................................................................................................................................................................................................23
2.8 ELEMENTS OF CHALLENGE ........................................................................................................................................................................24
  Climbing .........................................................................................................................................................................................................................24
  Climate .......................................................................................................................................................................................................................25
  Water ..........................................................................................................................................................................................................................25
  Caves ..........................................................................................................................................................................................................................25
  Labyrinth ..............................................................................................................................................................................................................26
  The Open Space ..................................................................................................................................................................................................28
  Fire ...........................................................................................................................................................................................................................28
3.0 METHODOLOGICAL APPROACH OF THE PROJECT ........................................................................................................................................31
  3.1 CONTENT ........................................................................................................................................................................................................31
  3.2 CONTEXT ........................................................................................................................................................................................................32
  3.3 CONCEPT .......................................................................................................................................................................................................33
4.0 PROJECT DEVELOPMENT ..................................................................................................................................................................................34
  4.1 PROGRAMME ..................................................................................................................................................................................................34
  4.2 FUNCTIONAL ORGANISATION .......................................................................................................................................................................36
  4.3 SITE ....................................................................................................................................................................................................................39
  4.4 SITE ANALYSIS ................................................................................................................................................................................................40
    History ...............................................................................................................................................................................................................39
    Surrounding Context ...................................................................................................................................................................................................40
Geometry and Size ........................................................................................................................................................................................................................................... 41
Slope ........................................................................................................................................................................................................................................................................................ 41
4.5 EXISTING ENTRY OPTIONS........................................................................................................................................................................................................................................ 42
4.6 ENTRY ALTERNATIVES .............................................................................................................................................................................................................................. 43
4.7 CHOSEN ENTRY ........................................................................................................................................................................................................................................... 44
4.8 DEVELOPMENT OF BUILDING FUNCTION TO SITE ........................................................................................................................................................................................................................................... 44

Design Development Drawings ............................................................................................................................................................................................................................................................................. 45

5.0 DEVELOPMENT OF SPATIAL EXPERIENCE ............................................................................................................................................................................................................................... 58
5.1 MAIN BUILDING .............................................................................................................................................................................................................................................................................. 58
Approach .................................................................................................................................................................................................................................................................................. 58
Entrance Experience ............................................................................................................................................................................................................................................. 59
Reception ........................................................................................................................................................................................................................................................................ 60
Library ........................................................................................................................................................................................................................................................................... 60
Recovery Space (sick bay) ........................................................................................................................................................................................................................................... 61
Looping ........................................................................................................................................................................................................................................................................ 61
Vertical Climbing Shaft ........................................................................................................................................................................................................................................ 62
Ultimate Reward Space ...................................................................................................................................................................................................................................................................... 63
5.2 CENTRAL HUB ........................................................................................................................................................................................................................................................................... 65
Lower Courtyard .................................................................................................................................................................................................................................................... 65
Climbing Corner ................................................................................................................................................................................................................................................ 66
Paths to Hub ...................................................................................................................................................................................................................................................................... 66
5.3 LIVING REALM ............................................................................................................................................................................................................................................................................. 67
<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dining Hall</td>
<td>67</td>
</tr>
<tr>
<td>Alternatives to the Dining Hall</td>
<td>68</td>
</tr>
<tr>
<td>Large Courtyard</td>
<td>69</td>
</tr>
<tr>
<td>Sleeping Quarters</td>
<td>71</td>
</tr>
<tr>
<td>Alternatives to the Sleeping Arrangement</td>
<td>72</td>
</tr>
<tr>
<td>Recreational Space (Indoor Auditorium)</td>
<td>74</td>
</tr>
<tr>
<td><strong>6.0 CONCLUSION</strong></td>
<td>75</td>
</tr>
<tr>
<td>6.1 CRITICAL APPRAISAL OF THE FINISHED WORK &amp; ITS THEORETICAL FRAMEWORK</td>
<td>75</td>
</tr>
<tr>
<td>Spatial Sequencing</td>
<td>75</td>
</tr>
<tr>
<td>Contrasting Devices</td>
<td>76</td>
</tr>
<tr>
<td>Social &amp; Private Settings</td>
<td>80</td>
</tr>
<tr>
<td>Outward Bound Elements</td>
<td>80</td>
</tr>
<tr>
<td>Other Observations</td>
<td>83</td>
</tr>
<tr>
<td><strong>6.2 SUMMARY</strong></td>
<td>85</td>
</tr>
<tr>
<td><strong>7.0 BIBLIOGRAPHY</strong></td>
<td>86</td>
</tr>
<tr>
<td><strong>8.0 APPENDIX.</strong></td>
<td>88</td>
</tr>
<tr>
<td>APPENDIX A</td>
<td>88</td>
</tr>
<tr>
<td>APPENDIX B</td>
<td>94</td>
</tr>
<tr>
<td>APPENDIX C</td>
<td>102</td>
</tr>
<tr>
<td>APPENDIX D</td>
<td>114</td>
</tr>
</tbody>
</table>
LIST OF FIGURES

Figure 2.2.1: The flow through rooms
Figure 2.2.2: Frederick Kiesler and Armand Bartos Architects: Shrine of the Book of Jerusalem
Figure 2.3.1: Example of a functional diagram
Figure 2.5.1: Sir John Soane: Soane House
Figure 2.5.2: Adolf Loos: Moiosi House
Figure 2.5.3: Palazzo Massimo alle Colonne, Rome
Figure 2.5.4: Antoine Predock: Nelson Fine Arts Centre, Arizona State University, Tempe
Figure 2.5.5: Steven Holl: Stretto House, 1991 & Kiasma Museum of Contemporary Art
Figure 2.5.6: Peter Zumthor: Thermal Baths at Vals, Switzerland, 1996
Figure 2.5.7: Adding texture to a space
Figure 2.6.1: Outward Bound Outdoor Education School, Anakiwa, New Zealand
Figure 2.6.2: Chicago City Prison
Figure 2.8.1: Climbing walls
Figure 2.8.2: Peter Zumthor: Thermal Baths at Vals, Switzerland, 1996
Figure 2.8.3: Louis Kahn: Hurva Synagogue, section of third scheme
Figure 2.8.4: Alvar Aalto: Saynatsalo Town Hall, plan and photograph, 1952
Figure 2.8.5: Giovanni Battista Piranesi, Carceri
Figure 2.8.6: Cowper Place
Figure 2.8.7: Settings within the old blast furnace site

Figure 4.1.1: Weekly timetable
Figure 4.2.1: Three categories of functions
Figure 4.2.2: Three categories of the programme
Figure 4.2.3: Diagrammatic development of the functions
Figure 4.3.1: Map of Auckland City and aerial map of immediate site
Figure 4.4.1: Site plan
Figure 4.4.2: A duality
Figure 4.4.3: Site model
Figure 4.5.1: Sub-station entrance
Figure 4.8.1: Series of drawings showing the development of building function to site
Figure 4.8.2: Working ground plan in site context
Figure 4.8.3: Working perspective ground plan
Figure 4.8.4: Working cross-sections
Figure 4.8.5: Working cross-section a-A
Figure 4.8.6: Working cross-section b-B
Figure 4.8.7: Front perspective

Figure 5.1.1: Entrance
Figure 5.1.2: Movement through ground level of main building
Figure 5.1.3: Reception
Figure 5.1.4: Library
Figure 5.1.5: Recovery space
Figure 5.1.6: Vertical climbing shaft
Figure 5.1.7: Reward spaces
Figure 5.1.8: Working plan and cross-sections of the ultimate reward space
Figure 5.1.9: Day and night spatial settings
Figure 5.2.1: Image of central hub
Figure 5.3.1: Three-dimensional model of the living realm
Figure 5.3.2: Working section of dining hall and kitchen
Figure 5.3.3: Alternative placements of the dining hall
Figure 5.3.4: Exploration of large courtyard arrangement
Figure 5.3.4: Continued: Early layout of courtyard without a strong central core
Figure 5.3.4: Continued: Further exploration of large courtyard and sleeping arrangement
Figure 5.3.5: Exploration of the arrangement of the sleeping quarters
Figure 5.3.6: Initial working model
Figure 5.3.7: Working model of the top half of the urban centre
Figure 5.3.8: Section through the recreational space and Symonds Street
Figure 5.3.9: Symonds and Airedale Streets façade

Figure 6.1.1: Linear configuration
Figure 6.1.2: Radial configuration
Figure 6.1.3: Network configuration
Figure 6.1.4: Contrast of human scale to main building scale
Figure 6.1.5: Contrast of the three realms: interior to exterior to interior
Figure 6.1.6: Points of exterior access to balconies or roof terraces on upper levels of the main building
Figure 6.1.7: Angles used in the design
Figure 6.1.8: Curves used in the design
Figure 6.1.9: Light exploration of reception and library space of the main building
Figure 6.1.10: Location of climbing settings
Figure 6.1.11: Location of water features
1.0 INTRODUCTION

1.1 RESEARCH QUESTION
How suitable is a ‘dynamically’ composed building for youthful participation in programmes aimed at resolving issues in their process of maturation?

1.2 RESEARCH PROBLEM / OUTLINE
This proposal develops a design for an Urban Outward Bound Centre for youth. I begin by questioning how an apparently ‘static’ building (not mechanically in motion) can be in congruence with the nature of its users, in this case youth. Pelli (1999) observes how the success of a building can depend greatly on how well it provides for its users.¹

Shakespeare (1599) writes about the seven ages of man, and talks about ‘the lover sighing like furnace with a woeful ballad made to his mistress’ eyebrow² at the third age of youthful growth. Each stage of a life cycle has its own difficulties and its own special advantages,³ however a realm of desire is observed at this age of adolescence; an age that is concerned with identity, occurring between childhood and adulthood. In his book ‘Places of the Soul,’ Christopher Day (1990) writes about adolescence as ‘the period of growing towards one’s personal identity, of becoming aware of oneself as separate from family.’⁴ Christopher Alexander (1977) adds that it is also a period that searches “for continuity in one’s own character against confusion and doubt... a time to find and ally oneself with creeds and programs of the world.” There is a whole lot of research out there about the significance of adolescence, which highlights the changing passages from traditional to modern societies; from simple and direct to a more elaborate structure. However in today’s structure there is still the serious societal problem of the poor initiation of ‘youth’ into positive adulthood.

¹ Cesar Pelli, Observations for Young Architects (New York: Monacelli Press, 1999), 182.
² Shakespeare W.H, As You Like It. [Act II. Sc vii 139]
With many people getting caught up in dramatic circumstances such as glue-sniffing, drug addiction, dropping out, teenage suicide, crowd violence and bitter divisions of wealth and opportunity, our society depends upon positive individual transformations. In saying this, normal adolescence can also be full of anxiety and “benumb us morally and intellectually”.5

Alexander (1977) suggests an institution which is actually a model of adult society in which the students take on most of the responsibility for learning and social life, with clearly defined roles and forms of discipline.6 Day (1990) adds that when “thinking about users means thinking of buildings as spaces,”7 and therefore in the case of youth, it may be beneficial to provide a rich and flexible variety of spatial experiences and settings, especially meaningful and even challenging ones where they can positively achieve and even fail, but more importantly they are able to learn and mature from it as a responsible individual. Conveniently, Pelli (1999) observes that society should be able to expect an appropriate sense of responsibility from its citizens and that new buildings are built to enrich human life. Juhani (2005) summarises that “every great building opens a view into the essence of the human condition and to an idealised and better world.”8 It is clear that adolescences need to be opened up to a whole variety of opportunities, especially in an alternative learning environment which will be discussed later on in the review. These opportunities could also help encourage the development of youthful individuality over the realm of desire.

Thus it is theorised that youthful participation in programmes aimed at resolving issues in their process of maturation would be more suitably conducted in static spatial experiences that, while static, give the feeling of the contrasting opposite, that of feeling ‘dynamic,’ varied and energetic and thereby be congruent with the youthful participants.

5 Alexander, A Pattern Language: Towns, Buildings, Construction, 141.
6 Ibid.
7 Day, Places of the Soul Architecture and Environmental Design as a Healing Art.
8 Juhani Pallasmaa and Peter B. MacKeith, Encounters: Architectural Essays (Helsinki, Finland: Rakennustieto Oy, 2005), 348.
1.3 OBJECTIVES

1. The primary aim is to find spatial devices that develop ‘dynamic nature’ in and, in fact, static building; how these ‘dynamic devices’ can suggest movement and “produce changes in interest, feeling or action”9 on the part of the young participants.

2. In order to provide an appropriately functional building, the second aim is to understand the role of ‘Outward Bound’ (OB), an outdoor action-based personal development programme, as a positive way of learning and how this can be done effectively and successfully.

3. Finally, can youthful growth be positively affected by ‘dynamic’ yet static space? The reality is that the effects of youthful growth are developed in humans as a result of a teaching experience (mentoring issue) led by another human being who uses the building as a ‘setting’. Support for such a notion comes from “Island”10, a novel by Huxley, where the ‘awe-ful’ spatially static yet ‘dynamic’ experience of mountain climbing is used to ‘impact’ youth suggests the possibility that a building could be like a mountain, and that youthful development is effected by the emotional affect of the struggle with the static elements (that are nevertheless emotionally dynamic) of the building on young growth.

1.4 SCOPE AND LIMITATIONS

1. The project develops the whole centre’s organisation, but focuses primarily on exploring and achieving dynamic nature in the main building located on the first half of the centre.

2. As the design’s primary focus is on the spatial experiences that make up the various social, learning and activity settings of the centre, the structural detail (nevertheless an important aspect of building design) therefore becomes secondary. Alexander (1977) also says that “no building ever feels right to the people in it unless the physical spaces are congruent with the social

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This means that the design will maintain the integrity of its social spaces by organising the structure according to these spaces in the building, instead of modifying the social spaces to conform to the engineering structure of the building. Inevitably, there are practical issues that take exception of this principle if you like; nevertheless the spatial design will remain most important.

3. Spatial experiences are varied and very unique to each individual. There are a host of complex issues and factors that influence spatial responses such as life experiences, culture and gender, physical and mental ability and to a large extent, psychological factors, which make it hard to control or specifically design for. Although it touches on relevant issues such as the restorative role of nature, etc, general research in architectural and environmental psychology is fairly new and often imprecise; therefore the project will not go into a lot of detail in this area.

4. Universally, OB has established a range of programmes for many different groups of people (young and old, physically and mentally able or disabled). However this proposal will develop a programme specifically for physically-able youth to enable the architecture to explore the elements of physical challenge. A programme that focuses on physically-able youth will be quite different from one focused on physically-disabled youth. Nonetheless the design will carefully consider the notion of access in its organisation.

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2.0 CURRENT STATE OF KNOWLEDGE

2.1 SPATIAL EXPERIENCE

Experience is a flux of shifting qualities suggesting that the quality of experience is fundamentally a varied and changing one.

To begin the review of spatial experiences, it is appropriate to highlight an underlying subjective energy. Eugene Victor Walter and Louis Kahn both suggest an underlying subjective energy of feeling, in “perceptions and representations on human experiences” There is ample emphasis that there are not only physical spaces but ‘expressive’ energetic spaces as well. The project is therefore interested in a solution that embraces high energy of great attention and excitement, and stimulating action for the young participants.

Space also needs to be experienced as a whole. Feelings, although ambiguous and unable to be expressed precisely, can be realised together with intellect and thought. This realisation can provide for better translation of architectural experiences. For example, thought can enter creation through rational design devices so that feelings can be more closely expressed, and therefore space remains expressive.

The Centre Pompidou is a rich example of Modern Architecture, however it is not as visually and spatially exciting as one would expect. Additionally, it exhibits a cascade of non expressive and meaningless motifs leaving people with a feeling of emptiness. In contrast, Le Corbusier’s early functionalist house is striking in it architectural poetry and contains in miniature everything that can be expressed in architectural language. The comparison is that the flexible nature of the former has space but no space; where as the consideration of different functionally specific spaces in Le Corbusier’s approach offers continuously

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13 Walter, Placeways a Theory of the Human Environment, 123.
14 Ibid.(experience as perceiving, doing, thinking, and feeling)
15 Louis I. Kahn and Robert C. Twombly, Louis Kahn : Essential Texts (New York: W.W. Norton, 2003). (Modern American architect articulates that, “all that we desire to create has its beginning in feeling alone.”)
16 Walter, Placeways a Theory of the Human Environment, 127.
18 Kahn and Twombly, Louis Kahn : Essential Texts, 63.
19 Walter, Placeways a Theory of the Human Environment, 123.
21 Ibid.
exciting experiences. This organised approach of spaces gives rise to an experiential exploration of functional diagrams.

2.2 SPATIAL SEQUENCING

We generally experience architectural spaces by moving through them in “relation to where we’ve been and where we anticipate going.”22 (see Figure 2.2.1) In otherwise words, spatial experiences can be understood as “the idea of an unfolding serial event”23 or as a narrative.24 In his book ‘Parallax’, Steven Holl (2000) talks about “Space [as] something both intrinsic and relational.”25 Alexander (1977) also mentions that “the movement between rooms is as important as the rooms themselves; and its arrangement has as much effect on social interaction in the rooms, as the interiors of the rooms.”26 Architecture is usually understood as a visual syntax, but it can also be conceived through a sequence of human situations and encounters.27 These examples are literal and bodily experiences of moving through spaces and can be best observed in an organised sequence of spaces. Alvar Aalto used this method of analysing spatial experiences to carefully conceive a study of healing spaces for human beings at their weakest in the design of the Paimio Sanatorium.28 This building explores a high concentration of technical innovation while remaining strongly grounded in a reality of human experience.

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27 Pallasmaa and MacKeith, Encounters: Architectural Essays, 326.
28 Ibid., 327.
Spatial sequencing helps to establish an overall unity of the design by arranging the multiple functions of a building. Sequence of spaces is also referred to by Francis Ching (2007), as ‘configuration of the path’

He talks about it as being lineal in nature, having a starting point, from which a person is taken through a sequence of spaces to a destination. Although a sequence of space may be remindful of something lineal, it is in fact quite a powerful organising device that can potentially develop a series of spaces

(see Appendix A for examples of the various types of organisation) into a complex network configuration that consists of multiple paths connecting different established areas in spaces. This increases the variety of spatial connections and experiences within the centre, allowing for flexible use and movement, somewhat resonant of a labyrinth.

It is used particularly well in the ‘Shrine of the Book of Jerusalem’ in Israel, (see Figure 2.2.2) by Frederick Kiesler and Armand Bartos Architects. (see Appendix A for further examples)

2.3 ORDER

These examples make it clear that when designing, there are decisions that need to be made to clarify organisational principles and to facilitate the regulation and resolution of spaces that are good to be in. Righini (2000) observes that architecture also “relies on logic and coherence (of

31 Ching, Architecture: Form, Space, and Order, 264.
which order is the visual manifestation).”  

Not only is order and logic important in making decisions in architecture but it is also an important aspect of people’s daily lives and activities such as, habits, rituals, routines and constraints, which all testify to the core role that order plays in our lives.

As the programme is specifically interested in providing the appropriate functions for its users; the young participants or better, “the lifeblood of architecture,” order is also important to ensure that the needs and values of the users are catered for in the design. It is also not possible to understand the architecture and spatial layout of a church, mosque or synagogue without reference to the liturgical aspects that influence their design and it is not any more possible to understand any landscape without reference to the different social, economic and political systems and ideologies that inform them.”

Therefore the design would benefit from implementing an organisational system at the initial outset. In order to organise functional spaces and develop spatial sequencing in the design, functional diagrams can be employed as a spatial design device. (see Figure 2.3.1) When using functional diagrams, naming of the various functions need not be more than ‘classroom’, ‘auditorium’, etc and “Just realising that there is a sense to the realm of spaces where it is good to learn” is all you need to know.

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33 Paul. Righini, Thinking Architecturally: An Introduction to the Creation of Form and Place (Cape Town: University of Cape Town, 2000), 60. Order helps to confirm which spaces are more (or less) important, thereby establishing a hierarchy.
34 Pelli, Observations for Young Architects, 182. Buildings are made to house users’ needs. Design takes form around these needs, which define the purpose and detailed functions of a building.
35 Baum, Cambridge Handbook of Psychology, Health, and Medicine, 419.
36 Kahn and Twombly, Louis Kahn: Essential Texts.
According to the designer ‘Keith Al barn,’ a diagram is evidence of an idea being structured\(^{38}\) and he also defines that ‘through appropriate structuring [the diagram] may generate different notions or states of mind in the viewer.’\(^{39}\) To engage in rich and strong imaginative impulses is also appropriate to architecture of sensory and experiential realism than just a single minded conceptual approach.

Some architects may use the diagram to describe a journey, or to chart a route toward a vague conception of the outcome already envisioned in the mind’s eye and others may use it to point the way into unexplored territory, “an enterprise accompanied by the thrill of the unknown.”\(^{40}\)

Diagrams are often used to study direction, intensity, conflicts, problems and possibilities when movement is considered between one point and another, for example pedestrian movement, transport, information, air and water currents. These diagrams can be used in the abstract or superimposed over other drawings when relating information. Diagrams can also identify the proximity and relative size of zones of activity.

It is obvious that functional diagrams are not only there to help us “map out in our minds the overall configuration of the paths in a building.”\(^{41}\) but they are extremely versatile devices that can help generate a rich variety of ideas and processes to ensure that the design encompasses all criterion of use and building enjoyment.

### 2.4 Disorder

As well as order, its counterpart, that of disorder and unpredictability is another device which can be introduced to the youngsters, in order to knock them off their feet, keep them guessing and challenging their sense of repose and current states of mind. Righini (2000) observes that “the need to feel spatially orientated may have its origins in the need to feel that we can defend ourselves, as much as in the need to know where we are and where we are going.”\(^{42}\) The individuals may be required to step

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\(^{38}\) Ibid., 89.

\(^{39}\) Ibid.

\(^{40}\) Ibid. Different frames of mind can also involve different drawings mediums for producing and representing ideas, and danger of designer becoming seduced by own drawings.

\(^{41}\) Ching, Architecture: Form, Space, and Order, 264.

\(^{42}\) Righini, Thinking Architecturally: An Introduction to the Creation of Form and Place, 62.
out of their comfort zones and into unfamiliar grounds, if they are prepared to learn anything new about themselves. By providing aspects of disorientation and the unknown, it will not only add to the dynamic variety of spatial experiences (much like the idea of a labyrinth) within the centre but it is also quite an appropriate element to one of the major OB learning activities best known as map and compass (or orienteering). Walter (1988) mentions that this power of ambiguity to lead the mind somewhere else “belongs to the roots of humanity.” Along with an underlying ordered structure, it is perhaps just as important to provide punctuations of unpredictability to strike an experiential balance in a dynamic building. This variation and flexibility could be useful to invigorate the inner explorer of each individual. Nevertheless each person will come into the programme with different levels of awareness and observation as a result of their individual life experiences. This can also bring in a rich variation of users, keeping the programme fresh and unpredictable.

There are also consequences to maximising flexibility. Although there are intentions of efficiency it can weaken the expression of architecture as “a game without rules.” In its attempt for flexibility, the Centre Pompidou has resulted in total flexibility of furnishings and exhibits. Louis Kahn expressed his opinion that “architects should always dare to express something final” and therefore did not accept excessive flexibility in his work. This approach is matched with the formal artistic inflexibility of Le Corbusier’s and Alvar Aalto’s architecture which consequently offers maximum flexibility for spatial use.

43 Antoniades, Epic Space toward the Roots of Western Architecture, 224.
44 Walter, Placeways a Theory of the Human Environment, 74.
45 Pallasmaa and MacKeith, Encounters : Architectural Essays, 155.
46 Ibid.
2.5 SIX CONTRASTING DEVICES

If you observe closely, the relationship or transition from one spatial existence to another in spatial sequencing is where something dynamic can also be experienced. Paradoxical spaces show that “sense always follows two directions at the same time” and negotiates between oppositions. To clearly distinguish a spatial experience from one next to it, you could therefore contrast them.

Research has developed a number of spatial devices that can be characterised by the word ‘contrast.’

1. **Contrast in Scale**
2. **Interiority and Exteriority**
3. **Angularity to Rectilinearity**
4. **Orthogonal to Curvilinear**

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48 Pallasmaa and MacKeith, *Encounters: Architectural Essays*, 340. Alvar Aalto once wrote: “In every case [of creative work] one must achieve the simultaneous solution of opposites. Nearly every design task involves tens, often hundreds, sometimes thousands of different contradictory elements, which are forced into a functional harmony only by man’s will. This harmony cannot be achieved by any means than those of art.”
Contrast in Scale

Contrast in scale can be understood as the act of contrasting space through adjoining volumes of spaces of different sizes and shapes. This idea can be experienced simply by walking through a low ceiling, confining area (the lower the better) into a high ceiling, spacious area.\(^{49}\) As a result, perception of the space can be sufficiently exaggerated to cause visual and psychological shock, as well as relief from monotony. Contrast in scale may also be understood as mean or generous\(^{50}\); dark and narrow passages in contrast to broad and sunlit passages, both having entirely different psychological effects. Although both are useful devices, it is essential that the users feel “free to make connections or not... according to their own judgement,”\(^{51}\) otherwise social situations may not improve or be achieved at all. Alexander (1977) suggests we “place the common rooms to form a chain, or loop, so that it becomes possible to walk from room to room,”\(^{52}\) with “a feeling of great generosity, passing in a wide and ample loop around the [building] with views of fires and great windows.”\(^{53}\)

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\(^{50}\) Alexander, *A Pattern Language: Towns, Buildings, Construction*, 631. As far as possible, avoid the use of corridors and passages. Instead, use public rooms and common rooms as rooms for movement and for gathering.

\(^{51}\) Ibid.

\(^{52}\) Ibid.

\(^{53}\) Ibid.
Contrast of scale, can also call attention to a specific point, establishing a point of emphasis apart from the rest of its background, as well as to vary the composition in order to hold the viewers interest by providing visual "surprises." Strategic placement also becomes an important part of the decision making. (see Appendix A for further examples)

Figure 2.5.1: Sir John Soane: Soane House

Figure 2.5.2: Adolf Loos: Moiosi House

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**Interiority and Exteriority**

A closed static space can be made dynamic with an opening from the side or above. This act of opening provides a fluid quality where the outside flows in and the inside flows out.\(^{56}\)

The contrasting effect from moving in to out can be energizing or liberating especially if the interior environment is particularly confining. Conversely, moving inside can be calming and equally important to provide variation and balance. *(see Appendix A for further examples)*

\(^{56}\) Caudill, Pena, and Kennon, *Architecture and You: How to Experience and Enjoy Buildings.*

\(^{57}\) Rasmussen, *Experiencing Architecture.*
**Angularity to Rectilinearity**

By placing an angled space or element next to a rectilinear one, another dynamic contrast is observed. Objects in an angled or diagonal position are unstable in relation to gravity which suggests a feeling of activity or energy.

In addition to challenging your sense balance, moving from rectilinear to angular spaces, may also excite your perception and hence you become more aware and interested in the folding or angled elements. As well as enhancing awareness, angles can also be implemented through practical building responses such as sun and wind angles and water collection. (*see Appendix A for further examples*)

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Orthogonal to Curvilinear

Shifting from orthogonal to curvilinear provides another mode of contrast. Curves vary in meaning; however, soft, shallow curves that recall the curves of the human body suggest pleasing and sensual qualities of comfort, safety, familiarity, and relaxation. Curves can also become a turning device, by subtly or dramatically shifting direction and horizon lines. (see Appendix A for further examples)
Light and Dark

Interior spaces of buildings are more likely to function more effectively with contrasting effects of light and dark. This is recognised as non-uniformities\(^{61}\) or a “tapestry of light and dark”\(^{62}\) by Alexander. Places which make effective settings for human events are defined by light, therefore the way it is controlled and utilised can offer variation to the spatial experiences in a building. If a space is preferred to be dark, the little diffusion of natural light in it will help suggest the predominant darkness of the space. Uniform illumination serves almost no purpose in a building, and can in fact destroy the social nature of a space. (see Appendix A for further examples)


\(^{62}\) Ibid., 645.

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Figure 2.5.6: Peter Zumthor: Thermal Baths at Vals, Switzerland, 1996
**Smooth to Rough (range of textures)**

A single texture is rarely employed in buildings. It is the variety of materials and treatments\(^3\) that typically produces a complex of textures which can be altered to produce a variety of expressive qualities. The precise ability to add variation and complexity to a building makes the textural device very useful in the design. Similarly to the sequences of spaces, a range of textures should also be composed and harmonized into an expressive whole.

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\(^{3}\) Any stone may be used in its natural, irregular state, or it may be chiselled in a rough or smooth texture or highly polished to convey a range of meanings from vigour to refinement.

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*Figure 2.5.7: Adding texture to a space\(^{4}\)*
The summary of the six contrasting devices provide the activation of difference which ultimately provides good vantage points for innovative experiential design. They are also good to observe critical aspects of space. It could be argued whether these six contrasting devices are the most appropriate. They are certainly not the only ones, as within each of the categories, there can be referrals to even more aspects of contrast (such as emphasis, convex and concave, denial and reward) that can be furthermore applied to the design. However, it is not really a matter of which devices are better, but more about the synthesis of a variety of them together that can provide for shifting and dynamic spatial experiences, to suit youthful growth and learning. Although contemporary architecture tends to turn away from social realities, it is this single conceptual understanding that is no longer possible and hence this proposal rather takes the idea of totality centrally where each device only adds to the richness of spaces of the whole design.

2.6 OUTWARD BOUND

Outward Bound is one of the oldest and largest action/adventure based educational organizations in the world - learning through experience over a three week period. It is a positive personal learning and development provider that identifies and meets the individual, while attending to their social development. This ensures that the courses remain relevant to society’s needs.

The OB youth programme gives participants aged between 16-18 years old, the opportunity to learn about themselves from both success and failure, by pushing them to their limits to take their confidence to the next level and to develop a stronger sense of personal responsibility in their response to real and challenging situations. Today, this revolutionary experiential program has expanded to over 62 schools and base camps worldwide; plus at least five innovative urban versions of the wilderness experience in the United States (US).

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65 Rasmussen, Experiencing Architecture.
67 Pallasmaa and MacKeith, Encounters: Architectural Essays, 296.

68 “Outward Bound,” http://www.outwardbound.org/. Founded in 1941 in the tumultuous waters of the North Sea during World War II, to provide young sailors with the experiences and skills necessary to survive at sea.
70 “Outward Bound.”
represent NZ’s multi-cultural society from the North Cape to Bluff. The schemes and activities that OB NZ is well known for are sailing, mountaineering, canoeing, rafting, solo, and map and compass skills.

**USA (urban centres)**

The Baltimore Centre is the first urban centre in the US and is now one of several very successful US non-profitable community-based educational centres. OB USA believes "the future of Outward Bound lies in the city..." and intends to replicate the success of Baltimore in over 10 other cities by 2010. They incorporate both wilderness and urban expeditions to get the best of both worlds. Although the rural version demonstrates the original vision of OB, the location today is almost too distant and disconnected from future working and learning settings in the city. Nevertheless the wilderness offers great challenges and fulfilment, which make it only appropriate that the programme retained these experiences. As mentioned earlier, there is a need for youngsters to break out from the protective claustrophobia of home life and find adventure in another world; to be exposed to a flood of powerful new experiences. An OB programme could therefore offer them these types of opportunities.

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**Anakiwa (rural)**

There is a national program of the wilderness version in Anakiwa, South Island, New Zealand (NZ). (see Figure 2.6.1) It is set in a rural environment with the base camp out in the wilderness by the sea, where they carry out expeditions in and out of the base camp, especially out in the vast environment. The courses attract participants to Anakiwa who

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71 Ibid.
Today there are no urban centres in NZ, nothing as such in the North Island and there certainly is not one in Auckland, our most youth populated city with an abundance of high schools. Therefore a site in Auckland City could be used to design such a setting.

*Rural to Urban*

Although there are schemes successful in USA, the placement of a rural idea in the urban context still raises incongruities. The Chicago City prison (see Figure 2.6.2) actually challenges the assumption that a prison is out of its place. Correctional facilities which are usually situated out of the way, in suburban or rural locations, is this time brought into centre stage in the city environment. Security issues work well in this multiple story system and an open outdoor space is also possible on the roof of the building, with a mesh roof preventing escape from helicopters. This example takes on quite a smart proposition and makes a lot of sense. No one wants a prison in their backyard, so by building in the city, it is not in anyone’s yard.

Another benefit of locating the programme within an urban setting is the close proximity to a large variety of urban settings. Urban centres can also merge into the fabric of their communities and establish powerful partnerships with schools, local and regional youth-serving organizations, businesses and civic leaders.

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Although the real challenge is in the adaptation of a rural typology into an urban site, research has also covered basic principles in urban design, as well as important connections to make between building and context. The urban setting is “an instrument of metaphysical function, an intricate instrument structuring action and power, mobility and exchange, societal organisations and cultural structures, identity and mobility.” The city represents and expresses variations of all sorts, and exhausts the human imagination, with a labyrinth of contrasts, more than can be described.

2.7 LEARNING SETTINGS

The reality of youthful growth is more a mentoring issue of teaching and learning between the mentor and student, rather than an architectural one. However a positive architectural setting is nonetheless a significant component that can influence and determine the effectiveness of the mentoring process.

Alternative Learning

In addition, alternative learning programmes can provide insight into seminal, unconventional and in some cases better learning environments. Kahn (2003) talks about schools today deviating from the ‘original spark’, ‘existence-will’ or ‘seed of school’ and therefore it suggest that we need to go back to the basic learning scenario between mentor and student, and provide settings that will support this.

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76 Alexander, A Pattern Language: Towns, Buildings, Construction. PL#30, PL#31, PL#110, PL#62, PL#96, PL#114, PL#125, PL#147, PL#115, PL#119.
77 Pelli, Observations for Young Architects.
78 Pallasmaa and MacKeith, Encounters: Architectural Essays, 142. (Activities and functions interpenetrate and rub against each other creating contradictions, paradoxes, and an excitement of an erotic nature.)
80 Kahn and Twombly, Louis Kahn: Essential Texts, 41.
81 Alexander, A Pattern Language: Towns, Buildings, Construction, 100. PL#18.
Waldorf school is a high school educational system based on pedagogy of Rudolf Steiner. It does no use a grading system and replaces principles of selection by encouragement and support through specialist staff whose priorities are to bring out the strengths and weaknesses of the students. Another positive and successful example is the Centre of Alternative Learning (CAL), a programme designed to work closely with troubled adolescents using alternative teaching strategies. They employ a small group ratio which allows the mentor to give more time and attention to each individual student. It is also a good example that focuses on the emotional growth of the student as well as alternative course strategies.

Personal experience in a rigorous professional dance company teaches a lot about discipline, commitment and pushing the limits physically, mentally and emotionally. The authors own experiences suggest that personal maturation and responsibility continues into the working environment and therefore relevant to future life experiences.

Social and Private

The project has also developed research on the psychology of good working environments to reveal how the provision of social and private spaces can increase the user’s variation of positive spatial experiences. The social content of modern architecture tends to play a secondary role to the appearance of thing. This has sadly resulted in buildings that prioritise a relief from monotony and boredom over a larger social vision; however this proposal will attempt to realise both ideals simultaneously.

Alexander also provides useful principles for positive learning settings that support the importance of both social and private spaces in an urban centre. Alternative settings clearly offer learning through individual responsibility, adult guidance and individual physical, mental and

82 "Waldorfschulen," http://www.waldorfschule.info/
84 Ibid., 115.
85 Ibid., 64.
87 Ibid., 91.
88 Pallasmaa and MacKeith, Encounters: Architectural Essays, 284.
89 Alexander, A Pattern Language: Towns, Buildings, Construction, 618. (no social group can survive without constant informal contact among its members)
emotional challenges which are all elements that youthful maturation aims to incorporate and achieve.

2.8 ELEMENTS OF CHALLENGE

The action-based activities of OB have developed a number of static yet emotionally dynamic elements that can be characterised with the concept of challenge. This is the aspect of OB where architecture can be a creative and powerful force. The emotional struggle with the elements of challenge can also bring pleasure and energy beyond the user’s imagination. Authentic architectural experiences derive from real bodily confrontations rather than from visually observed entities, for instance the visual image of a door is not a true architectural image, whereas entering and exiting through a door are architectural experiences. Similarly, the climbing wall is not an architectural unit, whereas climbing or abseiling, where the body physically encounters and struggles with the static elements, are authentic encounters. The following review will explore elements of climbing, climate, water, caves, labyrinth, open space and fire.

91 Pallasmaa and MacKeith, Encounters : Architectural Essays, 326.

Climbing

The most prominent and common activity of OB is climbing. Climbing pose challenges to the individuals and they invite participants to confront such emotional issues as the fear of heights, the fear of failure, and the fear of losing control. It also supports our underlying need to climb and survey our world from above. Climbing in the wilderness is mostly set

93 Alexander, A Pattern Language: Towns, Buildings, Construction.
amongst mountains, cliffs and trees, where as in the urban context a building is perhaps the main setting for climbing activities both internally (rock climbing centres) and externally (confidence course towers) along with trees and climbing walls. Steven Holl’s Knut Hamsun Centre is an example that explores the tower building as a literal element understood as both body and landscape fragment. *(see Appendix A for photographic examples)*

Slopes and terraces are another immense feature of the wilderness, with its vast mountains, valleys and undulations. Slopes can create uneven distribution of rain water which can kill the soil, therefore a sloped site would benefit by the use of terraces, a solution to distribute water evenly and avoid erosion.\(^\text{94}\)

**Climate**

The ever-changing and unpredictable climate is a reality of the outdoors. The wilderness experience, especially in the solo, exposes the participants to a variety of dry or wet and hot or cold conditions, where they must adapt regardless of the condition. The reality of the exposed weather is a feature that can also be explored in the urban centre which would certainly provide a greater variation of experiences, especially spaces where the user can not so much control the climate.

\(^{94}\) Ibid., 791.
psychology and that we constantly need access to it. In the rural setting water can be accessed at sea, rivers and waterfalls however in the urban context water is not so readily accessible. It would be important to offer plenty of access to a variety of water features, such as pools and fountains. The design could go as bold as allowing it to run right through the site. Rainwater collection is another useful way to incorporate and even expose water in the design. There is an abundance of contemporary urban designs that incorporate water innovatively. Peter Zumthor who designs with a sensuous connection to life explores the element of mist to create an experience of watery air in his Thermal Baths at Val. He provides a sensual spatial quality to capture the receptive user.

Caves

The alternative to towers is to retreat into caves. Caves are the most basic underground structure and provide an inward quality to spatial experiences. This inward nature could suggest womb-like areas, although if a large space is preferred it can become uncomfortable and claustrophobic. Either way the cavernous element provides opportunities to explore a host of spatial experiences which can enter the ground and

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95 Ibid.
98 Aaron Betsky, Landscrapers : Building with the Land (New York, N.Y.: Thames & Hudson, 2002).
99 Ibid.
therefore become an innovative way to explore connections between building and landscape.\textsuperscript{100} Ground\textsuperscript{101} can also suggest permanence and time. Alvar Aalto’s architecture is a product of the earth echoing the soil and the terrain.\textsuperscript{102} Some of the works of Louis Kahn also have a cavernous spirituality to them. One that turns inward is his project for the Hurva Synagogue in Jerusalem (1967-74) which is a space that has been dug out of the ground with light washing down the facades into the rest of the building.\textsuperscript{103}

Although a cave may allude to an inward imagery, they can also be an outward experience that whilst still having protective and sheltering features are open to the outdoors like Alvar Aalto’s Saynatsalo Town Hall (see Figure 2.8.4) and James Stirling’s Wallraf Richartz museum. Both inward and outward properties of the cave are resonant of the ideals behind outward bounds objectives for life experiences and will be important to explore in the design.

\textbf{Labyrinth}

Research into fantasy\textsuperscript{105} architecture has revealed unconventional and even controversial designs by a host of people, however two figures, Piranesi and Boullee tower over all others. They show that buildings with a fantastical character are a “deliberate exercise to amaze and amuse”\textsuperscript{106} and “provides enduring imaginative sustenance against the banalities of

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\footnotesize
\textsuperscript{100} Ibid.
\textsuperscript{101} Architecture and Ground (AD – interior atmospheres)
\textsuperscript{102} Pallasmaa and MacKeith, Encounters : Architectural Essays, 224.
\textsuperscript{103} Betsky, Landscrapers : Building with the Land, 59.
\textsuperscript{104} Göran Schildt and Goran Schildt, Alvar Aalto : Masterworks, Rev. ed. (London: Thames and Hudson, 1998), 81.
\textsuperscript{105} Neil R. Bingham et al., Fantasy Architecture, 1500-2036 (London: Hayward Gallery in association with the Royal Institute of British Architects, 2004), 12. (Fantasy implies an architectural composition that is strange and unfamiliar to the eye, sometimes within the realms of possibility, but usually... fantastic – a deliberate exercise to amaze and amuse.)
\textsuperscript{106} Ibid.
\end{flushleft}
The chaos and disorder observed in Piranesi’s work suggest labyrinthine and maze-like spaces, which carries a strong experiential quality and alludes to the activity of orienteering in outward bound.

The Open Space

In the rural environment the views are vast and usually uninhibited. A building however has the ability to control its views and even provide vast panoramic views at higher reaches of the building. The ability to control and provide different views at different transitional areas of the building can add a lot of variation to the building’s experience. Spaces without views can become prison-like for its occupants, but again this depends on what type of space it is. Nevertheless if people are in a space for quite a length of time it would benefit to provide refreshing views of a different world outside.

The green elements are a natural and predominant feature of the wilderness. Green spaces are refreshing and also have a restorative role. In an urban context, nature also plays a significant role and exists as trees, in parks and landscape designs, roof gardens and even building walls in the form of climber plants. Cowper Place, a tree

107 Ibid.

111 Betsky, Landscrapers: Building with the Land.
112 Alexander, A Pattern Language: Towns, Buildings, Construction. (deciduous plants that change according to the seasons)
filled public space created within an old blast-furnace plant is an example of an unusual industrial setting for a public place that manages to incorporate trees. It also collects rainwater through existing pipes, enriching the falling water with oxygen which offers a smart way to express water. The consideration of both trees and buildings together can shape places to offer new and innovative settings to be used by people. Enriching an environment with growing trees and plants can also offer a thrilling sign of the future to come.

Fire

Fire is another elemental component to the wilderness setting. In the practical sense, fire is usually used for lighting, warmth and cooking food, but it also plays an important role in social and celebratory events that involve a bonfire or fire circle. In an urban context, the outdoor element of fire can be brought into the interior environment, such as a fire place to provide a natural focus\footnote{Alexander, \textit{A Pattern Language: Towns, Buildings, Construction}, 842.} for social gathering and conversations, as well as individual dreaming and contemplation.

An excellent example of a design that incorporates most of the elements described above is the ‘Landschaftspark Duisburg-Nord’\footnote{Moore, \textit{Vertigo: The Strange New World of the Contemporary City}, 182.} in Europe, by Peter Latz. \textit{(see Figure 2.8.7)} This is one area of the many design interventions of the blast furnace site. It offers more levels and variation of attractions and experiences than most parks through a rich curriculum of experiences such as fantasy worlds, underground pools, decaying steel backdrops, ferns and climbers, relics of steelworks as climbing walls and makes great use of the surprise element. It is aesthetically appealing through interplay of built-up and open spaces, and as a result of its spatial

\footnotesize{\textsuperscript{115} Alexander, \textit{A Pattern Language: Towns, Buildings, Construction}, 842.}
\footnotesize{\textsuperscript{116} Moore, \textit{Vertigo: The Strange New World of the Contemporary City}, 182.}
versatility it provides a constant process of change in which people, both children and adults play an active part.

Some may take the notion of an action-based building and ideas of fantasy and imagination as too ambitious. However the unconventional designs of the old blast furnace site gives credibility to an alternative world that is “determined by neither stasis nor speed” but by a variation of “people, nature and technical achievements.” The urban context itself provides a rich curriculum of activities and entertainment that can satisfy the need to escape. OB is simply an alternative programme that has a very unique way of helping youngsters to discover their full potential. The adventure aspect is imbued in the programme to keep the experience bold and challenging and encourages the element of fun, beffitting the nature of youngsters. A setting that is dead and lacking adventure would not fit with the nature of the programme. Although leisure is a factor driving the programme, the focus is more on the source of good settings for active learning and personal development.

Thousands of youngsters have completed the programme testifying to its success and credibility. In addition, the “spectrum of emotions conveyed by today’s architecture is confined to the narrow range of the visual aesthetic experience.” However this project attempts to communicate experience and expression through a totality of visual, physical, mental and emotional constitution.

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[117] Ibid.
[118] Ibid., 190.
[121] Pallasmaa and MacKeith, Encounters: Architectural Essays, 303.
3.0  METHODOLOGICAL APPROACH OF THE PROJECT

3.1 CONTENT

As established by the literature review, the success of an alternative learning programme aimed at experiential situations is in the very core of its programmatic structure.

The project has developed a thorough and appropriate urban OB programme for Auckland City through the following processes:

1. **Identification of an appropriate number of participants (16-18 years old), staff and group ratios.**

2. **Development of a new three week (21 days) OB programme in the urban setting of Auckland City which includes a rotating daily and weekly timetable, incorporating both urban and wilderness expeditions.**

3. **Identification of a list of appropriate functional spaces to make up the programme.**

4. **Provision of both social (dynamic) and private (static) settings.**

5. **Division of functions into categories to help establish hierarchy of spaces and relative connections.**

6. **Realisation of the functional spaces in sequence through the utilisation of functional diagrams. This process explores the different types of organisation and path configurations (lineal, radial, clusters, and network) to develop differing experiential situations within an underlying ordered structure.**

The spatial sequences developed by the diagrams are useful to identify situations for contrasting adjoining spaces, which are explored in more detail later in the process when applying spatial devices.
3.2 CONTEXT

The investigation continues with a proposal for an appropriate empty urban site in Auckland City that generates a reciprocal relationship to the concept of experiential possibilities and variation. An ideal site has developed connections and responses to context via the following analysis:

1. **Location along the fringe of the city.** Due to the exclusive nature of the programme a site that is in the public eye but not located in the heart of the city is preferred.

2. **A realistic site that is big enough to cater for all functions of the programme.** However a compact site has also been advantageous in providing a more challenging proposal to closely relate to the concept of challenge.

3. **Topography, geometry and characteristics that exhibit connections to OB static elements of challenge.**

4. **Potential points of entry are explored to develop one that is dynamic and experientially driven.**

5. **The nature of privacy in the approach to the centre has also been taken into account.**

6. **The production of a site model has allowed another dimension of site exploration which is particularly useful to generate a sense of the ground element.**

7. **The drawing of plans and sections has also been utilised to get an immediate two dimensional yet expressive exploration of the site.** The section plays a very powerful part in understanding the sequence of spaces and allows the design to explore vertical as well as horizontal movement.

The process advances with the application of earlier functional diagrams to the site via all of these channels of design and exploration. The design process starts out diagrammatically and continues this way until the programme takes more shape, and then it progresses onto a larger scale.
3.3 CONCEPT

The design continues to explore how dynamic contrasting spatial devices, social and private settings and static OB elements can be implemented to enrich both the spatial experiences within the centre as well as the ultimate experience of OB. This process is carried out by intimate studies of the various spatial transitions as well as their individual characteristics, which forms a large part of the project’s development.

In terms of the OB elements, their applications are explored in relation to the functional placement of the activity settings. This means that function continues to play a vital role, even whilst the boundaries of alternative settings are being pushed. Instead of perceiving function as a constraint, it is rather dealt with as an aspect of challenge, allowing the resolution to render richer and more rewarding outcomes.
4.0 PROJECT DEVELOPMENT

4.1 PROGRAMME

The project begins by developing a three week programme (see Appendix B for an approximate summary of the daily activities) that incorporates three different weeks of both urban and wilderness expeditions. Every week the programme will welcome three to four new groups of ten young participants, 16-18 year olds, half male and half female. (Eventually four is selected crediting the Anakiwa example and also capitalising on the size of the site) Each group will be supervised by two mentors of both genders creating an appropriate group ratio of 2:10. There will also be additional staff members made up of secretarial and janitorial staff, support personnel of varying experience, a director, and kitchen staff. All of these specialists and support personnel are focussed on developing a positive and dynamic setting for the participants. The three week programme will be divided into the following categories:

- **Week 1 (within the centre)**
- **Week 2 (wider urban context)**
- **Week 3 (rural context)**

*Figure 4.1.1: Weekly timetable*
The tables (see Figure 4.1.1) formulate a cycle where the first week is spent in the urban centre. Each group will set about their daily activities in separate settings within the centre. (see Appendix B for an approximate summary of the daily activities) They will be assigned a different living quarter from each other. Whilst each group performs a variety of activities at different times of the day, independently of one another they will come together at lunch and dinner to share experiences over a meal to encourage social interaction amongst members outside of their own group.

Once these four groups complete their first week in the centre, they will prepare and progress into week two of expeditions outside of the centre amid the wider urban context. (see Appendix B for an approximate summary of the daily activities) The centre will continue to bring in four new groups of ten participants who will also begin their first week in the centre, while the week two participants wander the streets of the city.

As another week laps, the earliest group of four will conclude their urban expeditions and prepare themselves to be withdrawn into rural locations outside Auckland. (see Appendix B for an approximate summary of the daily activities) Another four new groups of participants will be brought into the programme and this weekly cycle will continue to make the programme available for as many youth as possible, keeping the centre active and varied.

The two mentors assigned to each group will remain with the same group along the entire duration of the 3 week programme in order to build a stronger mentor and student relationship built on mutual trust and respect. The three weeks duration is also necessary to build a high level of personal and social awareness expected of the youngsters.
4.2 FUNCTIONAL ORGANISATION

Below is a list of important functions that have been organised into three separate categories:

One (Beginning: Main Building):

- Entrance
- Reception
- Staff (administrative) areas
- Associative spaces: Library, Sick bay (First aid/ recovery), Janitorial spaces and Map room

Two (Middle: Core):

- Central Open Hub (heart and social settings)
- Amphitheatre space (performance)
- Activity and learning realms (indoor and outdoor settings)
- Retreat spaces (private settings)

Three (Destination: Residential):

- Dining hall and associated areas (cooking and eating)
- Living quarters x 4 (sleeping and washing)
- Indoor recreational space

Figure 4.2.1: Three categories of functions
The exploration of order begins with a lineal organisation connecting the three categories to form a basic sequence. (see Figure 4.2.2) The process continues to loosely add and explore relating functions within the three categories to extend the lineal sequence as well as to introduce radial configurations around the core route. When you observe the diagram at this stage, it is possible to make even further connections between spaces in separate categories. These extra connections assist in the development of network configurations to explore flexibility, variation and complexity in the overall organisation, while still maintaining an underlying contrast of order and unity. The concept of networking also relates to the complex nature of learning as well as the many interconnected situations occurring all over the urban context.

Figure 4.2.2: Three categories of the programme

Figure 4.2.3: Diagrammatic development of the functions
These diagrams (see Figure 4.2.3) are particularly useful to make quick connections and to identify movement and hierarchy of spaces. They also demonstrate that the spatial connections are not just sequential, but rather a network of spaces. Although the main route is obviously sequential, the radial and network configurations provide alternative paths and entries to adjacent areas giving the organisation a labyrinthine quality of individual exploration and discovery. At the same time, variation aims to avoid inward nature of the organisation, to promote accessibility and individuality.

The drawings have essentially coordinated an entrance experience with adjoining administrative offices and meeting areas as well as car parks, followed by a central hub, with multiple paths to different activity settings and finally the living realm that connects four separate sleeping quarters, as well as dining and recreational areas. These spatial experiences and characteristics will be elaborated later in the development, addressing the manipulation of contrasting spatial devices, social and private settings and the various OB elements.
4.3 SITE

In order to fulfil the criteria of a preferred urban site, the project has selected the existing car parking site on the corner of Symonds and Airedale Streets. It is located close to the motorway, along the city fringe, neither in the limelight nor completely hidden; so that society can still acknowledge the programme’s existence. The car park is currently being used by the public, but there are several other vehicle parking options within the vicinity. The site is also close to two greater Auckland City Streets; Karangahape Road and Queen Street, and is in proximity to key locations within the city centre. There are no existing buildings on the site, only a series of terrace levels sloping down towards the back.

4.4 SITE ANALYSIS

History
The proposed site has no significant historical background to it. It had never been occupied and remained empty until recently in the late 1900’s, when it was turned in a functioning public car park (DTZ Car parks). The surrounding context however, provides a rich overview of what use to and now occupies the surrounding context.
Surrounding Context

Some of the surrounding buildings have been there since the early 1900’s, such as the two storey Ara Lodge on 87 Airedale Street which still exist today. 53 Symonds Street had also been occupied by health departments but today it is an empty lot used for car parking. Since 1972, 57 Symonds Street had been used for commercial purposes and today it is still a commercial building of nine storeys. 29 Liverpool Street was a residence back in 1935, but was no longer occupied from 1972 to today, suggesting that it became a sub-station at that time and has remained one to this day. (see Figure 4.4.1) The background history of the surrounding context shows that the area had a mixture of residential, commercial and industrial buildings over time and today these areas exhibit an even richer combination of different building types, construction systems, shapes and sizes, in low, medium and even high rise. The site is tucked in between two very different buildings; a commercial tower of nine storeys and the Ara Lodge of two storeys. There are no existing green areas on the site, except for a few trees. However, there are plenty of trees and green areas adjacent to the site on the south facing boundary as well as green spaces across from the site, on the corner of Airedale and Wakefield Street. (see Appendix B for more background information)

Other observations of the site have noticed stair access along the site boundary from Symonds Street which provides access to the upper and lower levels of the site as well as the neighbouring site car parks. The Symonds Street face also has an existing billboard. There are also security wire fences along the bottom boundary of the site, which seals off access to the sub-station.
Geometry and Size

The unconventional geometry of the site conveniently features a central interconnecting realm that bends and links together two triangular shaped wings of approximately equal sizes. (see Figure 4.4.2) This shape expresses a duality and suggests two to three different realms within the organisation of the site. The entire length from Symonds Street to the sub-station boundary in plan is approximately 89 meters long and the width of the site’s base boundary is approximately 50 meters.

Slope

The site also expresses dynamics in its steep slope that drives down to the back of the site, which complements the idea of challenge and climbing in the design. The project has developed a 1:1000 three-dimensional site model and its immediate surrounding context to help understand the complex site conditions. (see Figure 4.4.3)
4.5 EXISTING ENTRY OPTIONS

Entry is perhaps the single most important point to establish in the building and our experience of an architectural space is strongly influenced by how we arrive in it. The project investigated alternative entrances to the site:

- The existing and most public entry (see Appendix B)
- Two other driveway entrances (see Appendix B)
- Alternative entry via the sub-station

The project develops further the alternative entry via the existing sub-station driveway at the lowest part of the site. (refer to figure 6) This entry is not an obvious one and is currently not functional as an entry due to the dramatic drop in ground level. Nevertheless it provides an unconventional approach to the site, making it quite appropriate for the programme. An added advantage of this entrance is that it will become totally private and secured, offering a more alley-like back streets approach to the centre. Entering from below can also provide an amplified impression of the centre and hints at underground spaces and climbing activities to explore an upward energy.

In order to use the existing sub-station driveway as an entrance to the centre, the project will propose to invest and upgrade the conditions of equipment and building as a contributing component to the design. By using this entry, the experience could explore whether to express and expose the transformers or to cover them up. However their exposure could enrich the experiential quality of the design by providing a gritty, industrial and even fearful aesthetic.

Figure 4.5.1: Sub-station entrance
4.6 ENTRY ALTERNATIVES

The preferred underground entrance approach has continued to explore various alternatives into the building. Four alternatives have been developed: (see Appendix B for further exploration of alternatives 1-3)

- **Alternative 1**: An exterior narrow passage that takes the participant horizontally to the building deeper in the site. (see Figure 4.5.1: 1)

- **Alternative 2**: The participant enters through a wall and into a small exterior court before entering the building, again deeper in the site. (see Figure 4.5.1:2)

- **Alternative 3**: Another narrow passage approach, but this time it is an interior tunnel that also leads the participant deeper into the site. (see Figure 4.5.1:3)

- **Alternative 4**: The last alternative presents the building immediately in front of the entrance, starting the physical building close to the boundary where the participant will be confronted with a complete building upon arrival. (see Figure 4.5.1:4)
4.7 CHOSEN ENTRY

The project selects the fourth alternative as it:

- Places the main entrance of the building at a point where it can be seen immediately from the main avenues of approach and these can provide an austere and elemental first impression of a tall building, which alludes to the futurist work of Italian architect Antonio Sant'Elia (1888).

- Brings the building to the front and therefore allow more room behind to accommodate other functions of the programme.

- Gives room to incorporate passages (both horizontal and vertical) and courts later in the design, rather than at the beginning.

A tall initial building also alludes to climbing and elements of height. The verticality can also deny visual access to the spaces and buildings behind to increase anticipation of the unknown and hence add to the initial experiential situation.

4.8 DEVELOPMENT OF BUILDING FUNCTION TO SITE

The project continues to explore the rest of the building’s programme on the chosen site. This is explored by applying the earlier functional diagrams to the chosen site in plan. The functions are loosely fitted into a 1:500 scaled site to get a sense of organisation in the new geometry and then later to a more appropriate scale of 1:200. The design also progresses onto sectional organisation to explore connections that may not be clear in plan. As a result it has provided opportunities to explore vertical organisation which is a prominent characteristic of the surrounding urban context. Vertical organisation is also appropriate to fit all the required functions of the programme effectively into a compact site. Contrasting spatial devices, social and private settings and outdoor OB elements are explored in more depth in the following development of the three realms of the centre; main building, central hub and living realm.
Figure 4.8.1: Series of drawings showing the development of building function to site
Figure 4.8.1: Continued
Figure 4.8.1: Continued
Figure 4.8.1: Continued
Figure 4.8.2: Working Ground Plan in Site Context: Living Realm (on the right) requires more resolution which is dealt with in more detail later.
Figure 4.8.2: Working Ground Plan Continued
Figure 4.8.3: Working Perspective Ground Plan
Figure 4.8.4: Working Cross-Sections
Figure 4.8.5: Working Cross-Section a-A
Figure 4.8.7: Front Perspective
5.0 DEVELOPMENT OF SPATIAL EXPERIENCE

5.1 MAIN BUILDING

Approach

The approach of the rural centre at Anakiwa is vast and open. In contrast, the approach to the Auckland Urban site has views that are continuously denied and revealed.
**Entrance Experience**

As you enter the dense forest, the spatial experience becomes more intimate and cave-like. The design attempts to replicate this contrast of scale at the entrance of the building. After being exposed to the tower from the lowest level of the building, the users progress up a steeply angled exterior stair case, passing a water fall feature to the left (refer to figure 8) until they arrive in a small veranda-like space at the top of the stairs. Entry into the building is via a small lowered doorway. This initial act of entering by slightly bending down will make the user become immediately aware of the buildings unusual characteristics. Next a short path leads the user into a small gathering space of low ceiling height. This space incorporates the idea of eddy flow, where movement spills into the spaces, circulates and turns into the linking passage way (see Figure 5.1.2). The entry spaces are designed to also cater for the initial welcoming ceremony, where a line of mentors can be placed throughout the spaces to greet the students and lead them one by one into reception. (see Appendix C for alternatives)

The chosen entrance experience explores a variation of spatial devices. The route does not move directly from point of entry straight to reception, but a small spatial break is placed in between to intensify the change into the larger receptive space. Variation of light and dark spaces also breaks up the route into a series of preparatory spaces. The changing angles and axes are a prominent feature of the plan, which disorientates the sense of direction and north point for the user, adding to the experiential quality of entering a new world. As described above the route also includes changing spatial heights and a curve that subtly changes the horizon line and comfortably turns the participant into the next space.

![Figure 5.1.2: Movement through ground level of main building](image)
Reception

The initial image that the participant receives in the centre of the reception space is of a silhouette of the receptionist behind a table. This effect is achieved by the reflection of natural light entering the room from behind and below. Cave-like qualities of diffused slithers of light are also achieved in this space from three vertical slots of light which was observed at the entrance and will continue to be used in other parts of the main building. (see Appendix C further spatial description)

Library

The library is the adjoining space which is designed for reading and other quiet activities. The participant enters the space as an extension to the reception space via some steps. To the left is a large vertical (floor to ceiling) opening that brings light into the space along the wall. Another feature of this space is a little alcove of lower height towards the back of the space. The roof of this alcove is a glazed skylight, however the location is one that is south facing and is shaded for the majority of the
day. Nevertheless, the light quality is preferred for this type of private space. The library has brighter light at the front and darker towards the back, providing a gradient of contrasting light. (see Appendix C for further spatial description)

Recovery Space (sick bay)

Pass the library and tucked to the right is a small recovery space for those who get sick or injured. This space is more private in contrast to the spaces described above. It accommodates four resting beds and has a large opening to an exterior but private terrace. It is north-west facing and turns its back on the rest of the main building, opening out towards the front of the building. The exterior space is filled with landscaping and trees to complement the neighbouring car parking site as well as bringing the restorative natural element of the rural setting into the centre.

Looping

The sequence of spaces so far provide more generous than mean public spaces in a loop configuration around a vertical lift shaft and structural core that provides access to car parking below and staff areas above (see Appendix C for further spatial description), with more private spaces coming off this route. Adjacent to the lift shaft is a vertical stair well enclosed by fire walls. This space is light filled and meets a small external courtyard at the top of the stairs. Observed here is an interior to exterior contrasting transition that takes place at the back of the main building.
Finally, the uppermost levels of the main building comprise the reward spaces; reflection space (see Appendix C for further spatial description) and ultimate reward space. (see Figure 5.1.7) Upon the return from the wilderness experience, the participants will be utilising this area of the centre, spaces that they have not yet experienced. The participant’s access to this realm of the building will be towards the back of the main building passing in an interior corner shaft. The space is vertical climbing shaft that requires a key to unlock the climbing tunnel. The climbing tunnel will take the participants three quarters of the way up where they will pop out to a levelled platform, providing a hiatus where the climber can pause to look down at their climb or even out to the hub area below. The climbers will then finish the last few meters up the wall to get to the top level of this vertical shaft. In front of them there is another lowered doorway. A little peak sized opening is beside this doorway that gives the users a glimpse into the next space. Before they move through, around the corner to the left is another space for viewing out to the north-west.
Finally the participants arrive at the peak of the building, a space that expresses an upward quality of accomplishment and reward. The rectilinear plan (see Figure 5.1.8) is arranged with a long table in the centre of the space, large enough to sit the ten young participants and the two mentors of the group comfortably. The real climax to this space is the final informal supper and photographic presentations over a projector screen, alluding to a cinematic imagery.

A wall will be able to mechanically shift and flip upwards to 90°, making it parallel to the floor level. The entire wall will move to retain an elemental quality. With this opened, there will be panoramic views out to the west, emphasising the top of the mountain experience. Solar and photo voltaic panels will also be seen on the angled roof.
To explore variation in the design, this space has developed a daytime spatial experience. (see Figure 5.1.9) However this graduation space is intended to be used in the evening, and hence the evening spatial setting is the ultimate achievement of the main building design. (see Figure 5.1.9) The folding wall will come down, sealing all four sides of the space and enclosing the space at floor level. The roof screen will slide back with the push of a button, revealing a glazed skylight that opens up the space towards the moonlight of the evening sky. Again this sliding wall is the full width of the roof to maintain its elemental quality. As well as the moonlight, the table will also be lit by candles placed down the table to create pockets of intimate settings for a cosy experience, even in such a vertically vast space.

To push the experience one step further on this level, the space has access to an exterior roof terrace that looks over the whole centre, enabling the graduated participants to have a final survey of their learning environment, with background panoramic views. By putting the ultimate rewards space on top, it not only emphasises a psychological sense of achievement, but it also removes hierarchy of the staff over the participants, giving the youth a strong feeling of worth and importance.

(see Appendix C for an amended review of the programme, a description of mesh screens and the building aesthetic)
5.2 CENTRAL HUB

The second realm of the site makes up the majority of the exterior spaces to achieve as much outward quality in the design as possible.

Lower Courtyard

The back exit of the main building enters a small court, which is a transitional space before the central hub above. There is a small water feature on the opposing wall in the form of a mini water fall where the users can get up close and put their hands out under the running water. They can even capture the water in the cusp of their hands and drink from it.

This space is south facing so it does not get direct natural light. It is also semi enclosed by walls on all four sides creating more shade than light,
making this space cooler than other exterior spaces. There is also the skylight of the library alcove in which the participants can look down into. A one storey building makes up the east wall with door access straight from the courtyard. The building houses the map room. (see Appendix C for further spatial description)

**Climbing Corner**

The small exterior courtyard has three alternative paths that take the users to different parts of the centre. To the left, between the main building and map room, and down the site is a foot path that leads past a group of trees to the lower part of the site, away from the rest of the centre. This is the climbing corner as mentioned earlier during the library space, enclosed by boundary walls. The boundary wall doubles up as a climbing wall where the majority of climbing activities will take place. The top width of the wall allows people to stand, sit and walk along the edge.

**Paths to Hub**

The other two alternative paths that radiate from the small courtyard take the participant into the central hub of the centre, where there is a semi-circular amphitheatre (see Appendix C for further spatial description) that is arranged around a performance stage. The two paths take the user up open stairs into the hub with more stairs ahead to the third living realm of the centre. There is another space tucked to the right side of the hub which conveniently creates an area for the diving pool; a setting for the water based activities in the programme. (see Appendix C for further spatial description and development of the central hub)
5.3 LIVING REALM

The third and final living realm (see Figure 5.3.1) of the site consists of the dining hall, kitchen and service areas, an interior retreat space, four separate living quarters and an interior recreational space.

**Dining Hall**

The uppermost level of the hub area provides the lower entry into the dining hall. The hall features changing of three levels. (see Figure 5.3.2)

The lower half seats the majority of the diners with the rest fitting in on the upper level. This space is designed to accommodate a maximum of four groups of twelve at one time. There is also another four groups of twelve whom will also be utilising the centre which means that dinner will
be served in two sessions. The second level of the dining space is where the servery will organise the flow of people around and back to their tables. Behind the servery are stairs that take people up to the kitchen and preparation areas. (see Appendix C for further spatial description) The back of the kitchen area connects to Airedale Street at the top of the site. This area will be where trucks can park to service the centre with delivery of fresh food produce and rubbish removal. As well as truck space, there are also staff parking spaces. The dining hall is largely for communal eating and this social activity is important to hold the human group together.

**Alternatives to the Dining Hall**

The design had originally explored the eating area on the southern side (see Figure 5.3.3: A) where the retreat space (see Appendix C for further spatial description) is now situated. This option does not work practically as truck service via Symonds Street is a concern for vehicular traffic. Therefore by putting the dining and kitchen areas to the northern side (see Figure 5.3.3: B), it offers a more appropriate and practical solution.

*Figure 5.3.3: Alternative placements of the dining hall*
Large Courtyard

There is one last key area that continues the sequence of spaces further up the site and brings the users to a large exterior social courtyard surrounded by four large living quarters. The courtyard provides the secondary entry into the dining area and can also become a setting for outdoor barbeques. Alternatives have explored various ways of spatial definition and arrangement. (see Figure 5.3.4) In the middle of this space, there is a round pool of water. This water feature is a lot calmer in contrast to the more chaotic water features in the first half of the centre.
(see Appendix C for further spatial description)
Figure 5.3.4: Continued: Early layout of courtyard without a strong central core

Figure 5.3.4: Continued: Further exploration of large courtyard and sleeping arrangement
Sleeping Quarters

Entry into the four surrounding quarters is through the large communal courtyard. All four quarters takes on a similar spatial organisation with minor variations according to the geometry of the space, the connection to the site boundary and natural light. Each consists of a vertical circulation tower, where stair access spirals around the interior edge of the tower. It also includes a lift shaft and a roof terrace for climbing and abseiling activities. The towers also indicate the point of entry into the building, making it easy to identify. In distant view, the towers provide vertical elements that are easy to recognise and suggest a complex of residential blocks.

There are three interior wings that make up the bulk of the building which connects directly to the relating tower. A small exterior courtyard is organised into the core of the quarter, which is privately encircled by the three wings and tower. A perforated yet secured boundary screen is added for visual access in and out of the courtyard; either to the street or the neighbouring site. On the ground level, an interior communal space is provided that opens out to the small courtyard with sheltered areas and a path running along the edge of the courtyard to externally link the tower.

Figure 5.3.5: Exploration of the arrangement of the sleeping quarters
and the wings. Kitchen and laundry facilities are also catered for on the ground level. (see Appendix C for further spatial description)

Figure 5.3.6: Initial working model

Alternatives to the Sleeping Arrangement

Working models were produced to offer crude but useful three-dimensional studies of formal composition, as in reality, buildings are experienced this way. They were useful to explore the complex characteristics of the site such as slope and terracing, as well as the formal connections to street and neighbouring context. Their employment became particularly valuable in the development of the sleeping quarters, especially to identify issues about function and hierarchy.

The initial working model (see Figure 5.3.6) explored many levels of terracing to break up the individual quarters. Compositively, the variation in height contrasts the monotony of the nearby commercial and apartment buildings. Whilst the labyrinthine configuration of the layout offered opportunities to further push the boundaries of space and movement, it lacked a well-defined central core, which is a clear feature of the Anakiwa example used to tie the various buildings of the centre together. This prompted the exploration of a new layout with a larger communal courtyard that would become a social element as well as linking it to the sleeping quarters.

Other alternatives were then explored through drawings, investigating the movement from communal space into the quarters. One offered a single entry way into each quarter, treating them as separate and private areas. Another combined two of the quarters together to share one larger
courtyard space. Although the latter had good intentions to encourage wider social interaction, in plan however, the organisation had lost the clear definition of four separate quarters. This shared courtyard meant that the strength of the larger communal courtyard was also weakened in the design. The separation of the four quarters became the preferred option, with clearly defined smaller courtyards in contrast to the larger shared one and this offered more private realms for smaller social gatherings. Another decision had to be made concerning whether the smaller courtyards should spill directly into the larger courtyard, like the Anakiwa version or whether the organisation should opt to turn and face the courtyards away from the main space. In the end, the outward orientation became the preferred alternative and this offered improved contrast of private and public realms. (see Figure 5.3.4)
Recreational Space (Indoor Auditorium)

Finally the space that makes up the corner of the top half of the site is a rectilinear recreational space. This space is only accessible from the large communal courtyard via steps down into the space. It is simply an interior space for both daytime and evening activities. During the evening, the eight groups of twelve could either be distributed around different areas of the urban centre carrying out separate activities, or brought together into the recreational space. If this space is used by all the occupants of the site at one time, especially in wet conditions, the groups can divide themselves into an eight part arrangement and carry out team building or competitive activities. *(see Appendix C for further spatial description)*

The indoor auditorium is glazed on the Symonds Street façade, so pedestrians will be allowed visual access into the space; a similar design feature used at the University of Auckland recreational centre. There are also other parts along the Symonds and Airedale Streets façades which are either glazed or screened for the public to observe what types of spaces and activities may take place in this OB urban centre.
6.0 CONCLUSION

6.1 CRITICAL APPRAISAL OF THE FINISHED WORK & ITS THEORETICAL FRAMEWORK

The assessment below identifies the various levels of spatial and elemental consideration in the design:

*Spatial Sequencing*

The use of functional diagrams has been largely advantageous in the organisation of the programme. It demonstrates order as well as variation into a functioning structure. The lineal, radial and networking configurations in plan are as follows:

- **Figure 6.1.1: Linear Configuration**
- **Figure 6.1.2: Radial Configuration**
- **Figure 6.1.3: Network Configuration**
The outcome is a complex of different buildings of different scales and for different functions, which is more attuned to the idea of an urban centre or community. The final product is also reminiscent of a clustered organisation which is completely natural due to the compact nature of the site which encourages the concentration of functions. Nevertheless it provides a collection of different spatial settings and clearly expresses variation in the composition.

**Contrasting Devices**

Organisation has provided a variety of fundamental sequences to explore experiential situations in more detail through dynamic spatial contrasting devices.

**CONTRAST in SCALE**

The project has provided spaces that are comfortable and appropriate to the human scale as well as contrasting scales to impress and to uplift. Although there are a series of tall buildings within the complex to add variation and give access to higher places, it comfortably sits at an appropriate scale to the surrounding context. The lower doorway transitions are also appropriate and are resonant of cave-like transitions.

*Figure 6.1.4: Contrast of human scale to main building scale*
INTERIORITY and EXTERIORITY

The design achieves an overall interior to exterior contrast between its three main realms; the main building (interior) to an exterior central hub and finally to the living realm of yet again interior dining, living and recreational spaces. On closer examination within these three realms it can be seen that there are more transitions from inside to outside and vice versa.

Figure 6.1.5: Contrast of the three realms: interior to exterior to interior (interior is highlighted)

Figure 6.1.6: Points of exterior access to balconies or roof terraces on upper levels of the main building
ANGULARITY to RECTILINEARITY

From the initial entry experience of the building, there are a set of stairs that are at a steep angle reminiscent of Central American “Aztec-like” angles, where the participants climb carefully up, encouraging awareness and challenge at the initial onset of the programme. Angles are also employed to disorientate and change axes in path and movement to explore labyrinth-like spatial experiences of disorder and unpredictability. Its application at the beginning allows participants to lose sense of where they entered from, as they enter a new world of self-improvement. Angles continue to contribute to other spatial transitions and also in the compositional and formal aesthetics of the building and its planning. A 25° angle has been used on the most prominent angled roof of the main building which suggests an upward angle to the sky, ideal for its impact as a reward space. This angle has also been complemented on the four towers of the living realm for solar and photo voltaic panels.

ORTHOGONAL to CURVILINEAR

Curvilinear is observed in the curved entrance into reception, turning the vanishing point. The central amphitheatre space has incorporated a semi-circular seating arrangement and there are also circular passage ways that allude to cavernous and tunnel-like spaces. Dome-shaped ceilings are also observed in the ground level space of the four separate living towers, which locates the entry and provides a gather space where groups can meet before setting out to their daily activities.

Figure 6.1.7: Angles used in the design

Figure 6.1.8: Curves used in the design
LIGHT and DARK

Natural light is a key component in the design which can do much to its atmospheric nature. The initial low ceiling spatial experience of the building with slits of light gives a sense of the predominant darkness. It is then contrasted with a sequence of other spaces that are brighter and then darker again as the participant moves through both horizontal and vertical paths of the centre. Another feature of light is expressed in the angled light boxes on the top of the four living towers. These bring visual attention up to the towers at night and offer a reference point for navigation. Conveniently they also lend to the outdoor motif of fire and glowing candles that light up the sky and provide a safe, well-lit setting.

SMOOTH to ROUGH (range of textures)

Texture has mostly been explored on the exterior aesthetic of the main building; however it could potentially develop further layers of materials and cladding to mix up the aesthetic. The use of materials and textures internally has begun to address several spaces but perhaps further exploration could develop this in more detail. The various spatial cell components of the building have nonetheless produced an overall fragmented entity with variations in surface treatment to emphasise a
range of textures. Beneath all the different textures, the main building employs reinforced concrete as its primary material to retain a coherent and elemental aesthetic. The changing textures of concrete are useful to break up the grandeur of the building, so while it still awes, it gives a complementing sense of approval. There is also another key textural observation of the distinctively fragmented composition of the OB centre in contrast to the bland and structurally predictable aesthetic of the surrounding buildings. The mixture of heights and shifting levels in and around the buildings of the centre is reminiscent of a mini city centre and can consequently bring excitement and relief to its occupants.

The applications of the devices are used to different extents in the design, some more (contrast of scale, interiority and exteriority, and light and dark) than others and this suggests that although they are all useful they are not always applicable. Also the utilisation of some of the devices, especially the use of angles and curves, are almost too obvious in their application. Further exploration might reveal better and more dynamic exploitation of these two devices. Even more, all the devices could perhaps be more rigorously applied or seek alternative ways of experimentation. Nevertheless all the devices have still contributed to the design in their unique ways.

**Social & Private Settings**

Along with individual responsibility, there are also social skills that need to be developed in the programme to assist growth and enrich the learning experiences. The design caters for social dynamics and gathering through the provision of multiple courtyard and communal spaces that are open to chance encounters along the main lineal route of the centre. As well as public and more social spaces the design has balanced the centre’s dynamics through the provision of private spaces. Privacy has been explored in various gradients, generally more public along the main route and more private towards the end of a sequence of spaces or towards deeper parts of the centre. As a result, the private spaces almost become rewarding and calming after a series of dynamic ones.

**Outward Bound Elements**

An alternative learning environment has provided opportunities for the employment of unconventional design elements. The elements of
challenge have been explored in different spatial settings of the building to make connections to the rural version and to offer the building a strong sense of the elemental. Again some have been explored more than others. Two elements that are most prominent in the design are climbing and water which suitably makes up two of the most common OB activity settings.

CLIMBING

Instinctively, humans have an urge to climb up high to be able to view the world below. Climbing is also most effective if there is a physical task involved. This is most clearly done in the vertical climbing shaft to the reward spaces on top of the main building as well as the roof terraces of the four other living tower blocks. Towers also give room below for green spaces or greater areas for activities. The provision of climbing plants also continue the theme of climbing, adding to the quality of a weathered and outdoor aesthetic of the living quarter towers and also brings a sense of life and growth to the environment. They can be deciduous and therefore adapt to the changing seasons making it particularly useful for thermal walls to block out the extreme heat of summer and maximise it during winter.

WATER

Due to the compact nature of the site, the more extreme water activities of OB are not realistic in the urban centre. Alternatively the design achieves a prominent motif of water though the entire design in the form of fountains, water-falls, pools, ponds and water tanks. There is a large water-fall by the entrance, two smaller water fountains on the edges of the central hub, a large diving pool to the side and a contrasting calm and
still leisure pool at the top living realm of the centre. Water collection is also made use of in the four living quarters, the kitchen and in the main building.

feature is used throughout the horizontal as well as vertical circulation in the centre and is done particularly well in the welcoming experience.

The water or river motif is also applied to the journey and the process of movement through the building without actual water involved. Rivers have eddies, which are pockets of calmer areas along the edges of rivers for people to slow down or rest while moving down the river. They also provide a flow and energy which complements the main route. This

Figure 6.1.11: Location of water features
Other Observations

Contrasting can also be observed between the Anakiwa rural base camp and the urban centre proposal for Auckland. Both observe a central social space, or rather the buildings are arranged around a focal core. The rural buildings are either one or two storeys in height in comparison to the more contrasting variation of one to seven storey building heights in the urban centre. The urban version provides plenty of vertical movement through access cores and shafts (which do not feature in the rural version) as well as horizontal flow. There are also living quarters in the Anakiwa version which all face and open up to the central courtyard.

Similarly, the urban centre encircles a central courtyard and provides the necessary access; however they offer more opportunities for privacy by having internal courtyards that face away from the large communal courtyard. The rural camp is relatively flat in contrast to the dramatic slope of the urban site, which has conveniently invited the use of terracing helping to break up the spaces. Although they both feature similarities, the urban proposal has definitely pushed the architectural boundaries a lot more than its rural counterpart. As a result, although the urban version lacks the vast setting, it is observed to have greater spatial dynamism, variation and excitement, through an extensive exploration of
spatial devices and settings, offering a greater overall sense of action and challenge.

The articulation of experiential situations has engaged a framework of smaller spatial units into a system of cells that ultimately turns into a complete entity. The quality of an alternative experiential, inside-outside approach to design largely explains the fragmented and incomplete aesthetic of the main building. Conversely, designs are usually guided by an initial conceptual image that develops into more detail, yet this alternative method engages closely with the human element in architecture of lived and more realistic experiential situations.

In reference to the concept of dynamism, the theoretical framework provides a great deal of variation in the exploration of spatial experiences that have a dynamic nature. It reveals a rich history of design precedents that clearly confirm the advantages of thoughtful spatial consideration, especially in user and functional orientated designs. Today there are many successful contemporary designs that push the boundaries of spatial experience, which makes it only appropriate that these architectural boundaries are continued to be pushed in new and innovative ways. The outdoor elemental component of OB also provides ample ways to push the idea of a building as a challenge and for the most part the idea of alternative settings for learning. These elements have begun to inspire the design, but with a more rigorous exploration; it could perhaps reveal further examples of alternative spatial design techniques.

Today, contemporary structural systems are also continually taken to their limits in architecture, so with further development in conjunction with structural innovations, it is likely that experiential situations will improve.
6.2 SUMMARY

The design has achieved dynamism and variation on multiple levels. The collective efforts of spatial sequencing, various contrasting devices, social and private settings and elemental components have clearly explored on varying levels, different experiential situations that not only suggest movement and produce changes in interest, feeling or action, but would appear to enrich any young person’s spatial experience of an OB centre.

The final success of the building depends greatly on how well it provides for its users. Whether the building’s dynamic spatial exploration would successfully resolve issues of youthful maturation is difficult to say. Largely because maturation is a complex matter of personal and mentoring issues that requires a holistic approach to an individual’s physical, mental and emotional development, all issues larger than just architectural ones. In saying that, the design essentially breaks down the functional structure of the programme to ensure that it explores a variation of appropriate spatial environments that would support many opportunities for personal and social dynamics as well as positive and energetic alternative learning. It also celebrates a host of comfortable and pleasant spaces as well as the fearful experiences of challenge. The urban OB centre thrives on a totality of acute spatial awareness and programmatic function, as well as the ultimate elements of challenge to really push the boundaries of architectural innovation.

Finally the project’s attempt to work closely with various user requirements in the design process to render a dynamic architectural environment congruent with youthful participation has revealed that participation ultimately benefits not only from dynamic and energetic spatial experiences, but just as much from static and calmer spaces that support reflections in tranquillity.
7.0 BIBLIOGRAPHY

"David Wall Photo: Stock Photography Library."


8.0 APPENDIX

APPENDIX A

Types of Organisation:

1. Linear

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2. Radial

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3. Cluster

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122 Ching, Architecture: Form, Space, and Order, 211.

123 Ibid., 221.
4. Network

Other examples:

Louis Kahn’s A. N. Richards Laboratories in Philadelphia and Le Corbusier’s Unite d’Habitation in Marseilles are useful examples. “In these buildings we appreciate the beauty of the design, and, with a little effort, we can also judge the soundness of the theory.”

SCALE

Salisbury Cathedral: as well as housing congregants, churches and mosques are deliberately designed to elevate the ceiling to such height that will inspire if not awe, the people.

Soane House. formal spaces at the front to more relaxed and varied spatial experiences at the back

124 Ibid., 224.
125 Ibid., 225.
126 Ibid., 276.

Adolf loos: Moiosi House (Unbuilt) incorporates a tower like space that is primarily for vertical circulation, to provide access to various half levels all the way up\textsuperscript{128} and the simplicity of the exterior contrasts the complexity of the interior volumes.\textsuperscript{129}

**INTERIORITY and EXTERIORITY**

![Museum design in Mexico (underground and has an opening upwards towards the outside)](image)

**ANGULARITY to RECTILINEARITY**

![Antalya Museum](image)

LIGHT and DARK

Le Corbusier: Chapel of Notre Dame du Haut, Ronchamp, France, 1955
Place the lights low and apart, to form individual pools of light which encompass chairs and tables like bubble to reinforce the social character of the spaces which they form. Remember that you can’t have pools of light without the darker places in between.\footnote{Alexander, *A Pattern Language: Towns, Buildings, Construction*, 1162.}
**SMOOTH to ROUGH (range of textures)**

**Steven Holl: Knut Hamsun Centre**
APPENDIX B

An approximate break down of the daily activities are summarised below:

**Week 1 (within the centre)**

The participants will begin with an introduction to staff and group members. The first day will consist of team building exercises. The following morning will include early morning exercises, followed by breakfast and group meetings. Activities will charge up the rest of the morning and a communal lunch will accompany this. The afternoon will involve the bulk of physical activities. This will provide training within the Urban Centre in activities such as climbing, abseiling, team building, diving, orienteering, and other action based/ sporting activities to establish the basic principles, so when the participants are later casted into the real outdoor challenges, they will be better equipped. A short break will be given after these activities followed by a reflection period to put a close to the day. Then the participants will carry out their duties and responsibilities permitting them free time. Dinner will happen in rotation, where four groups of twelve will be fed first and the other forty-eight will follow. Preparation for dinner will be carried out by a different group each night with another group cleaning up after. The rest of the night will include evening recreation, performances, and then wind down with supper and sleep. This will make up the first week with variations each day.

**Week 2 (wider urban context)**

The second week will be a host of urban expeditions where the participants will explore the city by foot, learn about public transportation and public services available to youth and undertake OB orientated activities as well as community based projects in the wider city context, in settings such as educational facilities, local parks, various community centres, attractions and businesses. This works in piecemeal ways to give the participants contact with many places and people all over the rich cultural, historical and natural environment of Auckland City. Its aim is to increase awareness of surroundings as well as to help make the city feel more like home. The morning will begin in the urban centre similarly to the first week. After breakfast, they will each take a packed lunch and head out of the urban centre in groups. They will return towards the end of the day to carry out their duties followed by free time. The rest of the evening schedule will be similar to the first week.
**Week 3 (rural context)**

This week will make up the ‘wilderness experience’ of the programme. Participants will be taken to an unknown remote location out in the wilderness in their separate groups by vans provided by the centre, where they will carry out more extreme and rugged versions of dry and water based activities introduced to them in the earlier weeks. New Zealand makes up a rich wilderness setting of parks, rivers, trails and treks, caves, mountains, etc that can be made available in the programme. (Waikato, Tongariro, Taranaki, Whangaparaoa, Tawharanui, Waiwera etc) They will stay out there for the entire last week, in cabins or tents and finally will be set out on solo, where each individual will be dropped off at an unknown location in the evening with only a sleeping bag, water, some snacks, pens and paper over two nights. This is the time where they will be given all the space possible to reflect over their progress and to record it. The individuals will then be collected and head back into the urban centre on the last day of the week to share their stories and to conclude their experience over a final communal meal.

**Site**

*Occupation of site and surrounding context from 1935 – 1985:*

In 1935-36, on 87 Airedale Street was the Ara Lodge (of two storeys), which still exists today. Back then, 53 Symond and 29 Liverpool Street provided board and residences.

In 1972-73, 83 ad 85 Airedale Street was occupied by Typographic Services Ltd and Commercial Computer Centre Ltd respectively. 53 Symond Street became a health department and 57 Symond Street combined the Auckland Horticulture Council, Thompson and Fish registered surveyors, town planner and roading engineers and Chrystall DA & L Architects. 29 Liverpool was not occupied and instead 21-27 of that street was used by Dynatune Ltd.

In 1979, 85 Airedale Street was occupied by Universal Homes Ltd (Members of the Auckland Master Builders Association), 6 storeys. 29 Liverpool Street was still not occupied, or rather it became a sub-station. 53 Symond Street became the Auckland Hospital Board, and architects and surveyors still occupied building 57.
Existing Entry Alternatives

The corner of Symonds and Airedale Streets is the most visible public connection to the site, where the Airedale connection provides the existing entry to four terraces of public car parking and tends to suggest an ideal place of entry for a public building. On the other hand the proposed building is intended for private use. In this case, two other potentially less public entrances to the proposed site are provided by narrow driveways down along Airedale Street that connects at the back.
Selected Entry Development / Alternatives
APPENDIX C

Spatial Experience / Description

MAIN BUILDING

Approach

The students will picked up and taken down the quiet yet steep Liverpool Street to the large intersection directly in front of the sub-station and will then be backed into the driveway.

Entrance

Two alternatives to the entrance experience has also been explored; such as a long narrow passage straight to reception and another has explored changing widths of a very lineal passage, starting off narrower and then wider to an eventual wider space of reception.

The gather space includes three lines of vertical light entry, designed to bring in some light, but does not allow views outside. Following this space, the user moves around a corner, greeted by another staff member, then up a narrow curved ramp of higher ceiling height and finally into the more generous reception space.

Reception

The light is intended to reflect off a new roof of the adjacent transformer outside the entrance as well as the surface of water beside it and on to the inner wall surface of reception. A mesh membrane will be built into the floor opening, with the water feature below. It will prevent people from falling over as well as to give an open connection to the sound, sight, smell and feel of the cool and chaotic water below, with natural air ventilation as well. Another mechanised enclosing screen will be installed to slide out of the floor to seal the floor at night or during colder periods.

On arrival, the receptionist will come around the table to greet the participant and show them to the waiting area in the inner half of this
space. The waiting area is an open space which is lit by three slots of light. These openings will be angled towards the sun to bring reflected light into the space.

**Library**

The library space consists of areas for bookshelves on one side and seating areas on the other half.

The vertical opening allows the user to visually access the outside space but not move out to it. The space that is revealed is only a glimpse of the outdoor climbing corner of the lower site. The skylight is also angled to allow visual access to the small exterior courtyard above and vice versa.

**Car park**

The car park can accommodate up to 4 vans and several other staff vehicles. It is accessed via the front driveway entry as this is where the majority of movement flowing in and out of the site is expected. Conveniently in the third week of wilderness excursion, the participants can head down to the car park, hop into the vans and leave the building via vehicle. Halfway between the car park and ground level is a small archive room for storage.

**Staff (Level 1)**

The stair well provides access for the staff members to the two levels of staff spaces. The first level consist of an open double height social and eating space with kitchen facilities, seating and views into the heart of the centre. To a corner, there is a glazed opening that looks into a map room that is accessed via the small courtyard below. Further into the first level and down some stairs is a quieter lower ceiling height space for resting and time out. This provides an opportunity for staff members to also mentally escape from the rest of the centre. Stair access is provided to the work spaces above. In the staff retreat room there is an opening which is north-east facing with the ceiling cantilevering out to create a sheltered exterior balcony. Views are not into the heart of the centre, but rather towards the front climbing corner.
**Staff (level 2)**

Heading back to the main stair well and up to the second level of staff spaces, the users make their way pass a meeting room overlooking the Hub with an exterior balcony. Further along the path the space is opened up to the double height space. To the left is another space for rest and views out of and down the building site. Two levels of open plan work spaces are provided in the second half of the second level. The flexibility of an open plan work space is preferred to cater for sixteen mentors (made up of two lots of eight mentors that supervise the groups in week one and two) whom are always changing, due to the cyclic nature of the programme. Also within this work space there are areas for photocopiers and printers and larger informal meetings. Above the work space is another large meeting room, this time facing out and away from the centre. This is the last of the staff areas and opens out to a large exterior roof terrace. The social and active realms such as the kitchen and adjoining open space, as well as the meeting spaces are brighter areas, but spaces used for meetings can also shut out the natural light by the means of screens/ louvers if a darker setting is preferred, for presentations, etc. A contrasting darker setting is found in the retreat space.
Reflection Space (part of the reward spaces)

When moving through the next passage way, the ceiling height drops dramatically in contrast to the vertical shaft space and the participants are provided with views through small openings embellished along the wall. At the end of this passage is a larger interior space that is centralised with a fire box and sunken seats around the box. The function of this space is for informal gatherings around the fire for story telling by both the participants and the mentors, alluding to a fire circle/ bon fire scenario. The ceremonial process of going though each individual of the group to tell of their learning and developmental achievements, recorded during their solo time. This space is darker in contrast to the previous one, with three little openings on the south facing wall. The other main light entry is through the door opening on the left which takes the user out to an exterior roof terrace on the northern corner of the building.

Transitional Space (part of the reward spaces)

In continuation of this process, the youngsters make their way further up the roof terrace and into a transitional space that has a significant view down to the hub area. Again, the opening is secured with a permanent mesh membrane for safety, ventilation and a sensual connection to the exterior space below. A mechanical wall screen will also be fitted to close off the outdoors if necessary.

Ultimate Reward Space

During the day, this space is lit very subtly in the top corner, which emphasises the verticality of the space. The corner edge creates a bright line of light reflected by the recesses and angles of the wall, with lighter gradients of the natural light diffusing around the edge. From the exterior view, the corner is recessed to hint a special feature in the top space of
the building and light will also shape the form on the corner with contrasting lines of shade.
The theatrical allusion of the reward space; is that the space and the full story is not revealed to the audience until the end. This gives it the energy of anticipation and enhances the experience as a whole.

**Significance of the Table**

The structuring function and symbolic role of the table has also largely been lost in contemporary architecture. The significance of the table however, is powerfully expressed in paints and poetry. The remembrance of the table can be stronger than the room itself when recalling old memories and experiences.

**Review of the Programme**

As the graduation experience is one of the most significant and potentially emotional moments of the programme, it would be appropriate for each group to have their own night to use the space. Hence the programme intake can be furthermore developed to bring in the four groups of ten participants in succeeding days as opposed to all four groups in one day. In other words, a group of ten will arrive on Monday, ten more on Tuesday, ten more on Wednesday and the last ten on Thursday. This means that the following Monday will commence a new four groups of participants, also in succeeding arrival days. The Monday groups will graduate after three weeks on a Sunday. Similarly the

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Tuesday groups will graduate after three weeks on a Monday, and so forth, to ensure they each group get their own night of utilising the graduation space. The subtle shift provides a stronger sense of variation, rhythm and dynamism to the programme.

**Mesh Screen**

The mesh screens that feature in the reception and upper graduation spaces are there to bring the outdoor climate into the space, whether hot or cold, to bring in an aspect of the changing environmental characteristic of being outdoors in the wilderness. However because the building in now in an urban context, it achieves this elemental quality whilst still giving the building control to shut out the climate.

**Overall Building Aesthetic**

The stacking image, its various textures of concrete and angles help break up the building in a way that suggests there is a lot to be learnt in the building. The various cells are also composed in such a way that not only produces a very dynamic and unique form, but the angles and vertical shafts suggest leaning and supporting of the multiple parts of the building. The technology today will allow the exterior concrete walls to be textured and finished in many different ways. Concrete also lends to the heavy and austere aesthetic. Although the colour and texture of concrete may be slightly cold, the main building will receive a lot of natural daylight and hence it will be warmed up by the sun. The upward angle of the roof of the ultimate reward space gives the building an uplifting gesture and also personifies it. The building works its way up to an apex which sends the eye upwards to the reward space above and by not allowing access to this space until the end, only adds to the anticipation and experience of the building.
**CENTRAL HUB**

**Map Room**

The map room exhibits a high ceiling and a small glazed opening on the top corner, which is connected to the main building at the staff level. This space is darker in contrast to the exterior courtyard. In the centre of this room is a glazed surface table with a large context model of Auckland City inside. This model is lit by artificial light inside the box and is accessible at all times. It will be a way for the participants to have a closer look at Auckland City in its entirety to learn street names, important locations, the contours, etc. This understanding will be particularly useful during the second week of urban expeditions, where the participants must navigate themselves through the city to carry out all sorts of urban tasks and activities.

**The Amphitheatre Space**

The amphitheatre made up of semi circular seating and stage marks a large outdoor performance space in the heart of the centre. This space exhibits gradual terracing up to higher living levels of the site. Along the edges of the core space are more open stair accesses to the various levels. To the right, a larger levelled open space is provided for social gatherings, which looks over the diving pool. The ground surfaces are hard concrete to contrast the more weathered textures of the boundary and building walls.
Diving Pool

The pool is rectilinear and has walls along the perimeter. Again to retain the elemental quality, the walls are large recognisable walls that stay coherent with the lines of the pool design and composition. Towards the front western side, there is a viewing area to the outside and over the tree tops. The level of the pool area is over three metres higher than the site’s sloping contours, exhibiting quite a drop, hence a balustrade will be provided. Immediately to the right there is access into an interior space with stairs that take you down there. In this space there is access into the base of the vertical climbing shaft of the main building via three floor-to-ceiling slot openings. The space also provides access which continues down stairs to take the participants underground into changing rooms and showers. This underground realm is darker and has a passage way that is composed with a glazed wall on one side providing views into the pool at lower than water level, like a experience of aquariums. From this space you can sit and watch the divers carry out their training. Further down the passage the glazed wall ends and there are more changing rooms with stair access back up and out to the top pool level.
**LIVING REALM**

**Dining**

Food will be prepared by kitchen staff with the aid of assigned groups of participants; all having turns preparing meals offering another social activity to the programme. A levering box system will be set up to allow the food to be vertically transported from the top level, down into the servery area. The room behind the kitchen will be used for storage and services.

**Retreat Space**

On the same level of the lower entry to the dining hall, there is another smaller courtyard with a central water fountain. This time the courtyard is open to the west and receives plenty of natural day light. Adjacent to this space is an interior retreat space for the participants. The space inside is relax and informal, will bean bags and mattresses on the floor. For those who may prefer to slip away into a more intimate space, two smaller spaces (alcoves) are provided.

**Large Courtyard**

This pool can be used during the participant’s free time with seating areas around the border of the pool. There are also more sheltered areas for sitting away from the pool but still around the edge of the courtyard. These resting seats provide opportunities to look at other people carry out activities and conversation which is encouraged in this communal space. This courtyard is also important to maximise chance encounters between participants, where people meet without agenda.

**Sleeping Quarters**

There are four other levels above this, of lower floor to ceiling height (2.5m). The monastic scale of the upper storeys will keep the building heights low yet functional. Both mentors and participants will sleep in these buildings, but will not spend a great deal of their time in these spaces. Each level will be made up of two sleeping wings and one bathroom wing which will be shared by all the occupants of that level. There will also be a shared sleeping room of five single beds for half of the group members (either all male or all female) and the other sleeping wing will be for one mentor. The next level will accommodate the other half of the group. The last two levels will house the same arrangement of
another group of twelve. Therefore, altogether in one sleeping quarter, there is a maximum of twenty-four occupants. The quarters offer exterior balconies and roof terraces to give the users opportunities to personalise their own living area with banners and or even washing.

Although adolescence is an important time for both genders to interact, the design had to take consideration of flexibility in the sleeping arrangement to acknowledge the unique rights and ways of the different genders. Ideally the nature of the quarter’s organisation offers flexibility and variation, to have either both boys and girls of the same group sharing the facilities or if necessary, or the extreme separation of an all boys quarter and an all girls quarter. Both options are possible.

Some alternatives dismissed the many levels of terracing and instead offered a levelled central space. However one alternative explored a subtle level increase into the sleeping quarters towards the top of the site, to retain some variation in levels. This not only created more issues with building levels but it also divided up the communal space which was not ideal in a space that should be well defined.
Recreational Space

The dimension of this space is approximately 20 x 10 meters which is slightly larger than the size of an ideal badminton court (metric handbook). It is large enough for the required activities but not large enough for activities such as basketball. Sporting activities of this nature will however be made available in the second week of urban excursions where the participants will get the opportunity to visit community centres.
Working Plans of Main Building