A Specific Genericism

Developing spatial quality through specificity in the urban office space

1220602

An explanatory document submitted in partial fulfilment of the requirements for the degree of Master of

Architecture   (Professional)   Unitec   New   Zealand   2009

I

Abstract

This proposal aims to develop spatial quality through *Specificity* that *''Genericism''* presently fails to achieve in the case of the urban office space. This idea is founded on questioning why a building type that we occupy for so much time, is less often perceived as stimulating and why the pleasure and influence of form and space is less often explored as it naturally would be in other building types. The fundamental proposed revision of the standard perception of an office design problem is to recognise the importance of social structure, in this case, of an office, and the impact it can have on architectural form.

While there are many roles within a business organization a usual, though somewhat illogical response to this, is to design office spaces to be unobtrusive and extremely flexible so as to allow for all possible required role settings which results in a bland and boring spatial experience. Due to this lack of commitment to space there often seems to be something *generic* about most office buildings. A lack of a *specific* program may be the culprit that creates the poor spatial quality of these *generic* office buildings with non-spaces that are non-events.

As a design intention, therefore, the architecture - the spatial core, stripped of all fit out – is designed to reflect the business and social structure of a specific organisation. Hopefully this refocusing of the design problem will develop a quality spatial "core" that will continue to accept change because it has a geometry that in fact a new business structure or a completely new user can take advantage of. The hypothesis is that one does not necessarily need to design a space for "anything", a *generic* design or "non-space", and therefore "nothing" in order for the building to be flexible. The resulting design is expected to establish a stronger sense of place, offer a more stimulating workspace and consequently enhance work efficiency.

Chapters

1.0 General Overview

1.1 Research Question

Does architecture, in response to a specific urban office use, produce a higher quality work space than it does when responding to a generic urban office use?

1.2 Aims and Objectives

We must consider human health - mental and physical - as the most important factor that embraces, supports and nurtures the way human society has evolved. And that human health depends upon the most appropriate architectural solutions: pragmatic, spatial and formal.

The purpose of this research project is to recognize the effect architectural space can have on the actual user in the urban office working environment. In order to create good human well-being and subsequently to enhance work efficiency, this project will explore 'Specific Genericism'.

As a design intention, 'Specific Genericism' means that the 'Architectural Core', (that is the building stripped of all fit out) is required to reflect the social structure of a specific organisation. Hopefully this reframing of the design intention will foster a quality 'core' that establishes a stronger sense of place, offers a more stimulating workspace and consequently enhances work efficiency. It will nevertheless continue to accept change by producing a geometry that new business structure or a completely new user can take advantage of. This process, will paradoxically bring to surface the underlying question: what in fact is "generic office space"? A result of this study appears to suggest a sort of contradiction in terms, 'Specific Genericism'. This oddity seems an entirely reasonable way to describe the resulting office building design.

Social Structure

One of the most important functions that the office must support is social interaction. In order for any kind of social interaction or communication to occur, we need to provide the right physical environment. Therefore, one of the key points that this research addresses is finding the primary link between physical space and social function.

1.3 Definitions

Generic: "referring to a class or group; not specific."[1]
Derivatives: generically[2], 'Genericism'[3], genericalness[4]

Specific: "of or relating uniquely to a particular subject."[5]
Derivatives: specifically[6], specificity[7], specificness[8]

---

[1] Judy, Pearsall (ed.). *The Concise Oxford Dictionary: Tenth Edition, Revised* (New York: Oxford University Press, 2001), 591

[2] Judy, Pearsall (ed.). *The Concise Oxford Dictionary: Tenth Edition, Revised* (New York: Oxford University Press, 2001), 591

[3] A personally established antonym of the word: specificity.

[4] Jess, Stein (ed.). *The Random House Dictionary of the English Language, The Unabridged Edition* (New York: Random House Inc, 1973), 590

[5] Judy, Pearsall (ed.). *The Concise Oxford Dictionary: Tenth Edition, Revised* (New York: Oxford University Press, 2001), 1378

[6] Ibid. 1378

[7] Ibid. 1378

[8] Ibid. 1378

In the last century society has changed in the way we work and live: especially how our jobs can affect our lives. This progression in the way society works has had an effect on the way we live at home. Family life is no longer what it was. There are more 'broken' families and more single people. In general, people who are far less dependent on the family and more dependent on relationships built up in their daily lives.

Humanity used to work around the home base, skills getting passed on from one generation to the next. However since the industrial revolution, people started working away from the family and home, spending around eight hours a day in their work environment. It could be argued that even today in New Zealand, workspaces in offices, such as administrative, corporate and business buildings do not represent the importance and influence they have on our lives. More specifically in relation to this research question, the problem lies predominantly in spaces for large organisations.

The dominant formal driver in this type of architecture is still efficiency in terms of number-crunching, creating self-contained boxes, with monotonous space arrangements, largely focused on creating the most generic space possible. This clearly suggests a disregard for the fact that a lot of office workers or 'knowledge workers' spend 25% or more of their lives in these spaces. Instead, office spaces need to nurture us. Working collectively is a key concept recognised in today's society. By maximising the opportunity for intimate relationships to form within the organisation through creating appropriate physical conditions, this will help our well-being and increase productivity. The quality 'Architectural Core' provides the opportunity to stimulate our social interactions within an organisation.

This explanatory document will describe the formal and theoretical processes taken in response to the research question. Chapter 2.0 introduces background knowledge into the field of office design as well as introducing key theoretical concepts adopted in this project. Based on the theoretical research, Methodology outlines the formal approach that has been chosen to solve the architectural problem. The Design Process includes a thorough site analysis and a step-by-step conceptual process discussing ideas that developed this spatial exploration. The Critical Appraisal analyses and evaluates the formal design process and theoretical approach taken to the final architectural solution. Chapter 6.0 concludes the architectural question stated in the introduction.

2.0 Review of Current State of Knowledge

2.1 Background Information

2.1.1 Development of the Office Workspace

"The values of our society are focused in offices. Offices are statements of our belief, or lack of it, in one another. Their hardware and software reflect our ideas of management, of democracy, of the quality of life."[9] - Sir Peter Parker

As an introduction to the development of office design and to grasp an understanding of the process, the reasoning behind what is called the "urban office space" and a breakdown of the key design stages is identified and critically analysed. The design response to a typology i.e. office space, is an evolving thing. Past design decisions need to be understood before and during further steps that are taken in the design process. It is an evolving thing because it is a product of the values of our society at any one time. This evolutionary idea is considered along with the recognition that the buildings we inhabit have an effect on us and on our quality of life. How these issues are dealt with through architecture, evolves with society.

"We make the buildings, then the buildings make us."[10] - Francis Duffy

---

[9] Francis, Duffy. *The Changing Workplace (*London: Phaidon Press Ltd, 1992), Preface
[10] Francis, Duffy. *The Changing Workplace (*London: Phaidon Press Ltd, 1992), Foreword

The way in which office space has been dealt with can be divided into two general types: the 'Corridor Office' and the 'Open-Plan'. [11] Though the general Open-Plan has further developed and is also referred to by terms such as 'Buerolandschaft'[12] and 'Typical Plan'.[13]

2.1.1.1 The Corridor Office

These offices are reached by a long central corridor and the key concept behind this spatial structure is that each workspace is private.

The advantages of this space layout is that each space generally gets sufficient natural light and ventilation because of the narrow layout of the floor plate, each office having its own glazed façade. Another advantage that it has is that each user can control their own environment i.e. light switches, user-controlled windows and shading devises. Due to the cellular layout, visual and verbal privacy is easily available. The issue of 'Status' and 'Hierarchy' is also acknowledged through the separate office treatment i.e. m² per person and fit out.[14] (Though as discussed above, fit out is not the 'Architectural Core'. But the corridor office makes more of a commitment to space through the 'Architectural Core' than either the Open-Plan or the 'Buerolandschaft'.)

---

[3] Francis Duffy is a key authority in the field of office design and is author of several books on the topic apart from 'The Changing Workplace'. In his book he has divided the types of office space into these two general types.

[12] Francis, Duffy. *The Changing Workplace (*London: Phaidon Press Ltd, 1992), Preface. It was the Schnelle brothers who devised this term in the late 1950's, post-war Germany. They envisioned a new concept of office planning known as the 'Buerolandschaft' or also known in the English term of 'office landscaping'.

[13] 'Typical Plan' is Rem Koolhaas' term for the generic high-rise office building founded in New York.

[14] Francis, Duffy. *The Changing Workplace (*London: Phaidon Press Ltd, 1992), 7-8

It has been made very apparent that there are some clear disadvantages in this spatial structure. Frequently there are not enough single offices for everyone who needs one which results in the sharing of offices. Small shared offices provide the poorest conditions for mental concentration.[15] The shape of the building and size of the rooms also makes it difficult to get more than a small number of people together in one space i.e. work groups, conferences, meetings. The advantages of such a collective work style have become well recognized and thus larger open spaces are fundamental in any organizational structure.

The Corridor Office also makes supervision difficult and communication is difficult compared with the Open-Plan. It can be said that there is the problem of wasted space in the corridors that connect the offices, behind doors and in corners. This is because these spaces are seen as purely circulatory. One could argue that just because a space is not directly labelled as working space, it does not necessarily mean that it is "wasted", depending on how the space is arranged or dealt with. These in-between spaces can be extremely beneficial to communication and overall productivity especially considering society's current value of office work which emphasises communication and quality of work environment and consequently are now pursued as primary factors.

The more permanent partition walls used to divide the spaces create a stronger commitment to space than the Open-Plan but are therefore expensive to move and may inhibit future changes.

Though the primary disadvantage as far as this explanatory document is concerned, one could say, is the standard or 'generic' plan, which is determined by economic spans of beams, adequacy of natural

---

[15] Francis, Duffy. *The Changing Workplace (*London: Phaidon Press Ltd, 1992), 8

light and Program Instability. This causes a very generic space arrangement and architecturally does not show much sign of status or social structure, except that one can assume that workers are divided into very small groups, pairs or even alone according to the size of each cellular office.

2.1.1.2 The Open-Plan Office

The original concept of the Open-Plan office consists of an area in which desks and equipment are arranged in ordered rows. Just like the 'Buerolandschaft', the areas are often very large and the plan is very deep. Therefore staff end up working far from the windows and artificial light and ventilation that are required. They also result in a lack of a user-controlled environment. [16] Other disadvantages include that the ordered rows of desks give a classroom affect which is disliked and considered unfriendly by most staff. This clearly links to the idea of quality of space. There are also many distractions due to the vast spans of open area. The issue of 'Status' and 'Hierarchy' is almost ignored in this spatial concept.

The advantages of this spatial structure compared to the Corridor Office are that there is a saving of space due to the minimal amount of corridor and corner space and, due to their being no barriers to visual relationships between all the areas of the floor plate, improved supervision and communication is achieved. Because of the large span structure and minimal use of partition elements dividing the space, it is often stated that changes can be made in the layout of furniture and equipment without difficulty making this type of spatial structure very flexible. But it can be argued that this is not the case. The trouble is that the movement of the partition elements and furniture leaves over used and crushed carpet areas; not to mention bleaching and changes in colour that generally look so grubby that

---

[16] Ibid. 9

organisations making changes will just rip the whole lot out and start again. Carpet squares can assist but consistent supply is not assurable. Therefore, this solution may not be as flexible as it seems.

2.1.1.3 The 'Buerolandschaft'

This new concept for office design, the 'Buerolandschaft', was the product of a vision of a more humanitarian management ethic. Like the Open-Plan, the 'Buerolandschaft' is a large open floor area where the plan is deep and consequently windows are very far away from the centre but there is still a visual connection to outside. Early examples of this space structure include: the Ninoflax offices in Nordhorn, Krupp, Buch and Ton.[17] More current examples of office buildings in New Zealand that carry strong elements of this concept include: the Vodafone building, Sovereign House and the new IAG headquarters.

This new concept, a development of the Open-Plan, dealt with the disadvantages of both Corridor and Open-Plan offices. The intention of this design was to find a middle way that preserved the intimate quality of the Corridor Office but at the same time met the requirements that had led to Open-Plan. Some of the key criteria that the 'Buerolandschaft' was designed to meet include: communications within offices, levels of contact with outside world, levels of space, equipment and privacy each person required.[18] This is a key point where the issue of intimacy is directly addressed. The advantages of intimate spaces are recognized and are partially reproduced in this new space structure, though not through the architecture.

---

[17] Ibid. 1

[18] Ibid. 10

The idea of intimacy is explored not only on a person-to-person basis, but is also explored in the more complex levels of social structure. The idea of creating levels of intimacy depending on the arrangement of staff in optimal relationship to one another, in informal groups of teams and activities was, the first response to the investigation into the psychology of group work. [19] One could conclude that the birth of this concept of group work and levels of intimacy was the primary factor that made the 'Buerolandschaft' a more effective solution than either the Corridor Office or Open-Plan Office.

The way the 'Buerolandschaft' differs from the Open-Plan is not so much through the 'Architectural Core' as it does through interior arrangement and fit-out. The social structure of the organisation is expressed through the arrangement of furniture; portable acoustic screens, pot plants and equipment around the floor depending on how the areas are used. Again, the concept of 'Status' and 'Hierarchy' can only be recognized through fit out - not through the 'Architectural Core'. Everything is portable. Everything is standard. The building shape - the 'Architectural Core'- governs nothing and no one. There is a distinct lack of commitment to space. Though the problems found in the Open-Plan and Corridor Office are addressed and solved: levels of privacy, loss of individuality, noise, visual comfort and distraction. It could be said that this has not been done through the architecture but through careful planning of the fit out. At least there has been recognition of the importance of understanding. There is now a response to the need for a more intimate social structure and a recognition of what each particular person and group requires.

---

[19] Ibid. 10

Although the primary goal of the 'Buerolandschaft' was to work as efficiently as possible, the concept recognized the importance of making staff comfortable by creating a stronger sense of place(group), sense of individuality and all in all a higher quality and more enjoyable working environment. Happy staff = increased productivity.[20] The 'Buerolandschaft' is an attempt to address the quality issue. This was not the case with the Open-Plan.

2.1.2 Hierarchy, Status, Role

Status[21] and Hierarchy[22] are closely related and can be addressed as one idea; Status being a position in a system or ladder of Hierarchy. People are impressed by Status and there is an underlying Hierarchy in the office structure.

Therefore it may seem that it is Status that has a strong affect on the arrangement of offices, especially in terms of the 'Buerolandschaft'. If we look back at one of the major tools used to define the 'Buerolandschaft': fit out; furniture, fittings, equipment, plants and screens; these are all visually apparent Status symbols along with allocation of space (more floor area per person and better lighting

---

[20] Ibid. 13

[21] Ibid. 25. *"Status is an index of the rank of a member of an organization measured on some scale of value. Status relations are interactions within an organization which are determined by their respective ranking on such a value scale. Status, however, is unstable and must be earned by the individual and confirmed by others."*

[22] Judy, Pearsall (ed.). *The Concise Oxford Dictionary: Tenth Edition, Revised (*New York: Oxford University Press, 2001), 669. Hierarchy: *"a ranking system ordered according to status or authority."*

conditions).[23] Though there are different types of Status - not just the Status you can see when you walk into an office. There is authority, technical capacity, and social prestige and not all these different types of Status can be recognised simply by looking at a persons work area.[24] So there is clearly some inconsistency between the physical status symbols and what it measures. Because of its inconsistency, it should not be the driver of the office design and organizational layout.

If at this point Status and Role[25] are split into "apparent power" and "real power", consecutively, it should in fact be the actual Role of staff that affects the arrangement of office space. Based on this evaluation of the two terms, one could agree, in comparison, that the organizational structure should be based on Roles rather than Status, and that this should be visually apparent as the design driver for the 'Architectural Core'.

---

[23] Francis, Duffy. *The Changing Workplace (*London: Phaidon Press Ltd, 1992), 28

[24] Francis, Duffy. *The Changing Workplace (*London: Phaidon Press Ltd, 1992), 29-30

[25] Ibid. 25. **"***A Role is the basic unit of socialization. It is the activity the incumbent would engage in were he to act solely in terms of the normative demands upon someone in his position. So we can speak of the role of a 'father' and a 'lawyer' and refer to one man. Through roles, tasks in society are allocated and arrangements made to enforce their performance. Roles are independent of the individual and should be distinguished from the role performance of someone in a particular position."*

2.1.3 Case Studies

A series of four case studies have been carried out as a means of investigating the current urban office situation in New Zealand. Three of the four studies analyse office buildings in Auckland as this is the largest business district in New Zealand as well as the location of this design project.

2.1.3.1 Conservation House

    Location **Wellington**

    Direct User **Department of Conservation**

    Architect **Architecture+**

Fig.1[26]

THIRD FLOOR PLAN

OTHER TENANCY
VOID
OPEN PLAN WORKSPACE
CELLULAR OFFICE/SHARED OFFICE
MEETING ROOMS
CIRCULATION
KITCHEN/CAFE/LOUNGES/ROOF GARDEN
WC/STOREROOM/SERVICES
OFFICE UTILITY
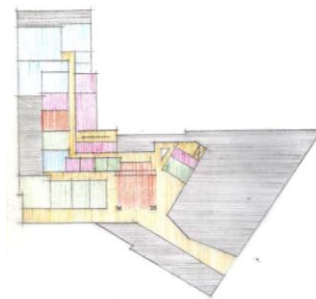
GROUND FLOOR PLAN   THIRD FLOOR PLAN   FOURTH FLOOR PLAN
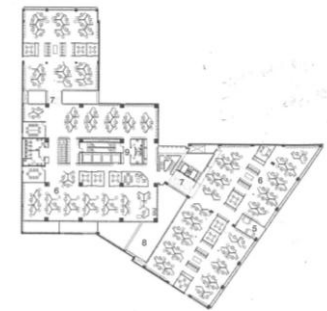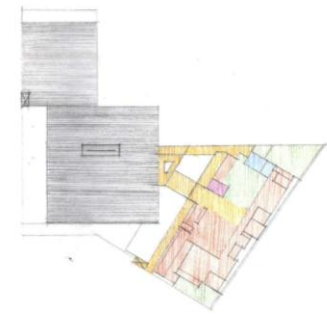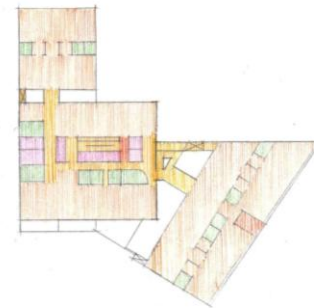
[26] Alison, Bartley. "Cutting to the chase". architecturenz, No. 5, September/October (2007), 46

In this first example there are more cellular spaces than later case studies in this study, creating a more intimate experience. The 'Architectural Core' consists of stacked floor plates: internal partition walls define more self-contained rooms. The unusual site boundary and the fact that this office is a refurbishment of an old cinema complex may be seen as the primary reason for creating this specific form. Therefore this case study is somewhat different to the other three, which are buildings designed without any existing physical building constraints.

A key design feature is the central atrium. The reception is at "the heart"[27] of the atrium, defining it as a social hub, though the main concept is that it allows for natural ventilation and light. The atrium is a light core used to break the otherwise deep floor plate and get light into the space. Though, the furthest workstation is still eight meters from the nearest natural light source which is not the optimal distance.[28] Apart from the atrium there is no other visual, vertical connection between the stacked floor plates.
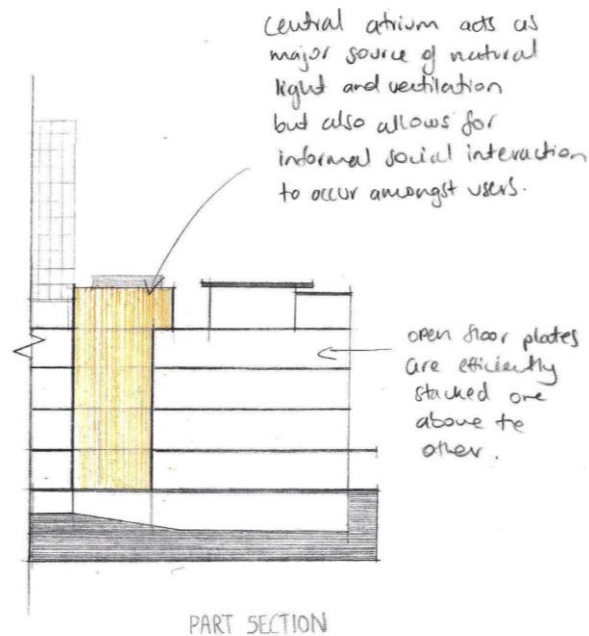
This building allows for users to control their environment by opening windows: a much desired aspect in offices. This is possible due to smaller floor plates and most workstations being close to openings.

---

[27] Alison, Bartley. "Cutting to the chase". architecturenz, No. 5, September/October (2007), 44

[28] David, Littlefield. *Metric handbook: planning and design data*. 3rd ed. (London: Architectural, 2008), Chapter 12: Offices, 1.04, 5.03. The New north European type of office building planning and design criteria states that the furthest distance from perimeter should be 5m with a typical office depth of 10 m. In section 5.03, the Metric Handbook states that the floor depth should have either a glass-to-core depth of 9-12m or a glass-to-glass depth of 13.5-18m.

"The stair is the vertical gym, a catch-phrase now in the jargon of contemporary office planning ..."[29] The vertical circulation is emphasized as important with the idea that stairs consume only human energy. They are also good for mental stimulation through physical exercise.

The building aims at functioning largely in terms of culture of the organisation; this suggests where current society's values lie.
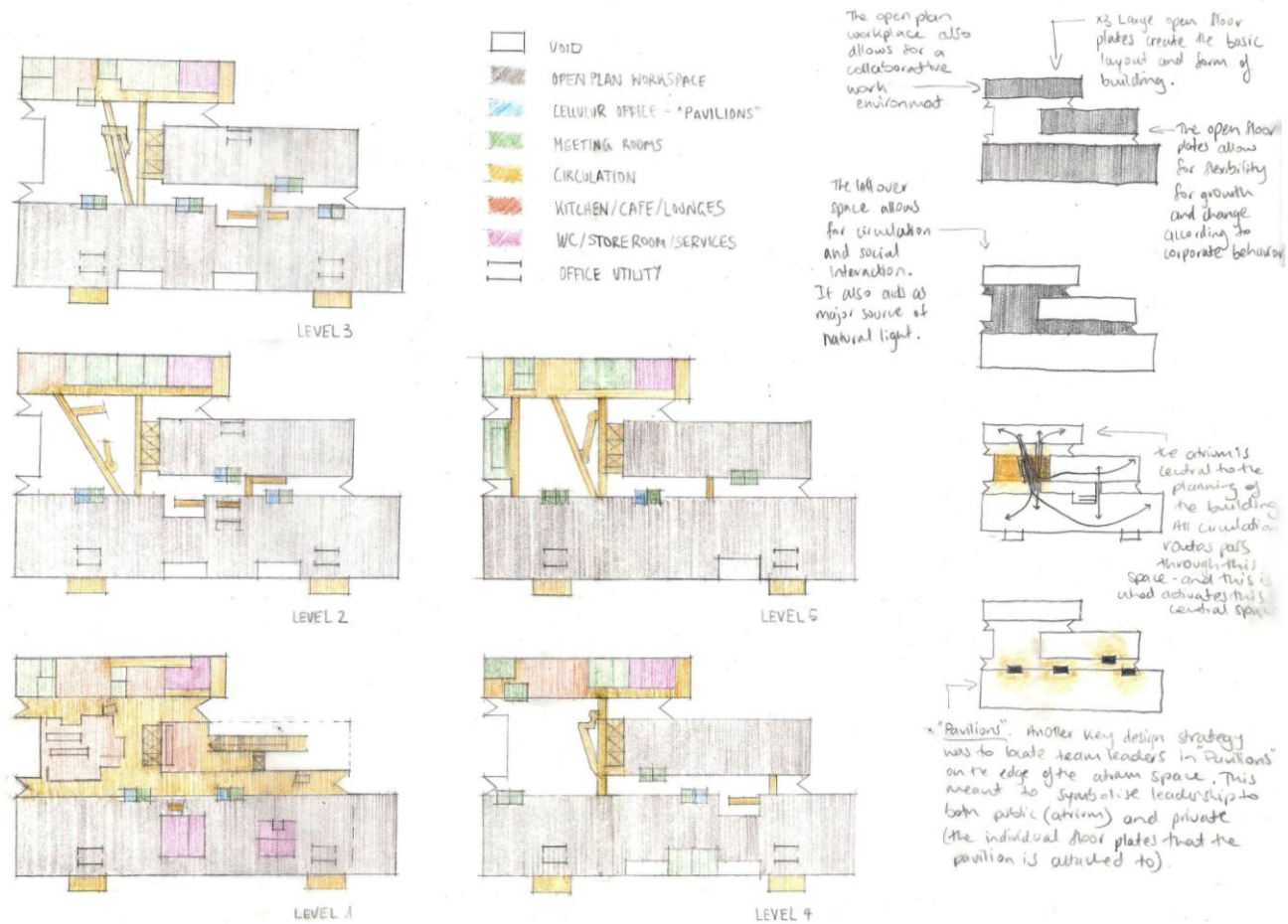

central atrium acts as major source of natural light and ventilation but also allows for informal social interaction to occur amongst users.

open floor plates are efficiently stacked one above the other.

PART SECTION

---

[29] Alison, Bartley. "Cutting to the chase". architecturenz, No. 5, September/October (2007), 44

2.1.3.2 Sovereign House

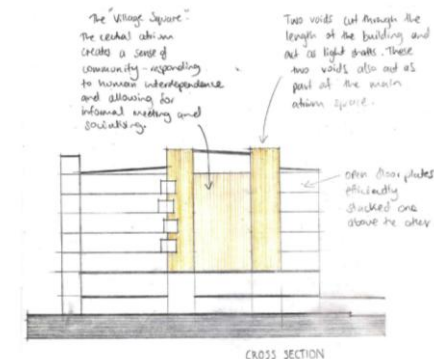Location **Auckland**

Direct user **Sovereign Insurance**

Architect **Jasmax**

Legend:

- VOID
- OPEN PLAN WORKSPACE
- CELLULAR OFFICE - "PAVILIONS"
- MEETING ROOMS
- CIRCULATION
- KITCHEN/CAFE/LOUNGES
- WC/STORE ROOM/SERVICES
- OFFICE UTILITY

LEVEL 3

LEVEL 2

LEVEL 5

LEVEL 1

LEVEL 4

The open plan workplace also allows for a collaborative work environment

The left over space allows for circulation and social interaction. It also acts as major source of natural light.

x3 Large open floor plates create the basic layout and form of building.

The open floor plates allows for flexibility for growth and change according to corporate behaviour

The atrium is central to the planning of the building. All circulation routes pass through this space - and this is what activates this central space

"Pavilions". Another key design strategy was to locate team leaders in "Pavilions" on the edge of the atrium space. This meant to symbolise leadership to both public (atrium) and private (the individual floor plates that the pavilion is attached to)

This office has a 'Buerolandschaft' layout, where three large floor plates repetitively stacked for five levels, create and dominate the overall spatial arrangement and design of the building. These floor plates define the 'Architectural Core'; their arrangement determining the social core and light core that is the left over void in between them.

In this case, the social core also acts as the light core. The main atrium acts as the central space of the building. All circulation routes, vertical and horizontal, pass through and activate this space. The atrium void, in between the floor plates is also the only component that creates a visual vertical connection in between the different floor plates (and working groups).

A key design strategy of the Sovereign House is in the form of "pavilions". These boxes, located on the edges of the floor plates, overlook the atrium space. The concept behind the pavilions was to locate team leaders in a spot both in public (atrium) and in private (floor plate) view; as a symbol of leadership.[30] These boxes make one of the boldest commitments to space, as they are part of the 'Architectural Core'. All other elements on the floor plates are secondary and added as interior fit out.

CROSS SECTION

---

[30] James, Grose (ed.). *From the inside/out* (Auckland: ASB Bank, 2008), 32

2.1.3.3 Vodafone V.nue

Location **Auckland**

Direct user **Vodafone**

Architect **Jasmax**

Fig.2[31]

Vodafone V.nue is one of the two buildings analysed in the case studies which are located in the city centre on a fairly defined site due to the building density in the area. It is definitely apparent in this building designed for Vodafone, that there are aspects of the 'Buerolandschaft' office incorporated in the planning of the floors. More importantly the 'Architectural Core' seems to be, in essence, an extrusion of the corner site it sits on. This may be an indication why the floor plate of V.nue is one of the biggest in the CBD with its 2,500 square metres. [32]

---

[31] Wikimedia Commons,"*Vodafone Building Near Victoria Park*",
http://commons.wikimedia.org/wiki/File:Vodafone_Building_Near_Victoria_Park.jpg
[32] Stephen, Stratford. *Jasmax* (Auckland: New Zealand Architectural Publications Trust, 2007), 129

Because of the fairly repetitive spatial arrangement of the floor plates (when they are stripped of all fit out) the different floor levels are colour-coded with orientation aids such as pillars patterned with colourful graphics.[33] This can be evaluated under the idea of "gimmicks".[34]

This plan, unlike that of the Sovereign House, is an example of a current office building that has a service core running right through the centre of the plan. There is no light core penetrating the plans, meaning all natural lighting comes from the four glass facades.   Since there is no atrium, there is no strong vertical internal connection between the floor plates.

This is a specific example of an organisation using the concept of transparency as a driver for the design. It has been stated that "*The building's design explores concepts of transparency, fluidity and slipping planes.*"[35] Another concept developed specifically in response to the organizational behaviour of Vodafone, staff has been classified as homers, foners, roamers or zoners according to their different work styles.[36] One could argue that this key concept seems to lie predominantly in the fit out – not in the 'Architectural Core' itself.

---

[33] Stephen, Stratford. *Jasmax* (Auckland: New Zealand Architectural Publications Trust, 2007), 129

[34] Refer to Chapter 2.2.5 The Quality Issue, 40-41

[35] Stephen, Stratford. *Jasmax* (Auckland: New Zealand Architectural Publications Trust, 2007), 129

[36] Ruth, Le Pla. August 2005. "Flooring the Critics: Bumper growth in space race". NZ Management Magazine. http://www.highbeam.com/doc/1P2-12608520.html (accessed June 6, 2009)

Legend:
- VOID
- OPEN PLAN WORKSPACE
- CELLULAR OFFICE / SHARED OFFICE
- MEETING ROOMS
- CIRCULATION
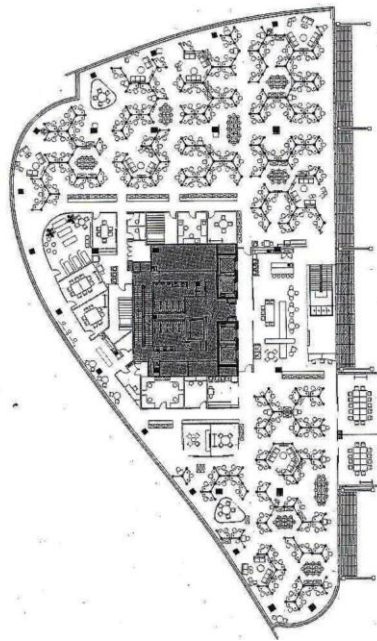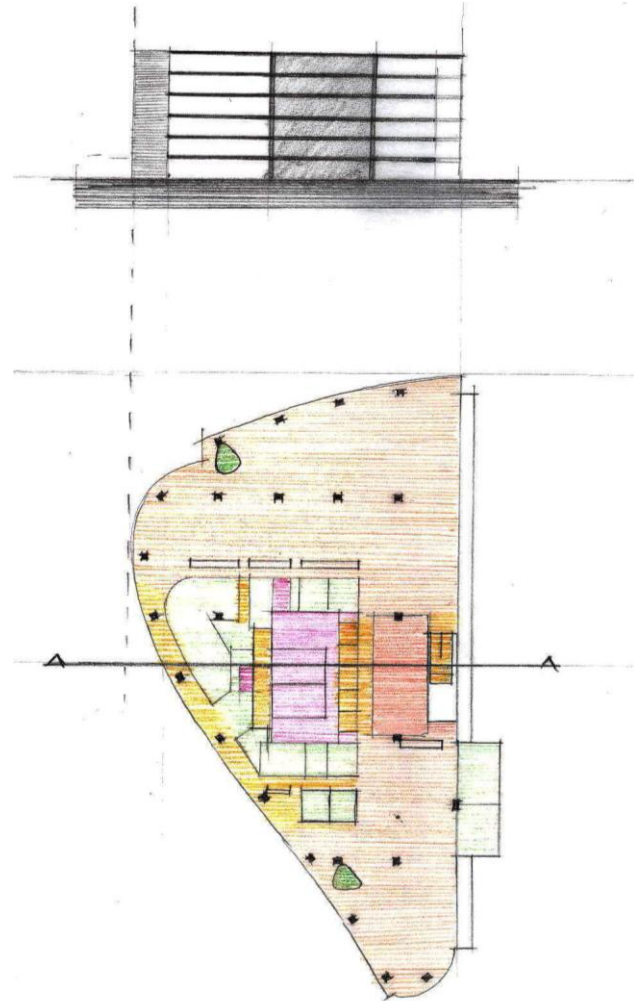- KITCHEN / LOUNGE
- W/C / STOREROOM / SERVICES
- OFFICE UTILITY

Fig.3[37]

[37] Stephen, Stratford. *Jasmax* (Auckland: New Zealand Architectural Publications Trust, 2007), 129
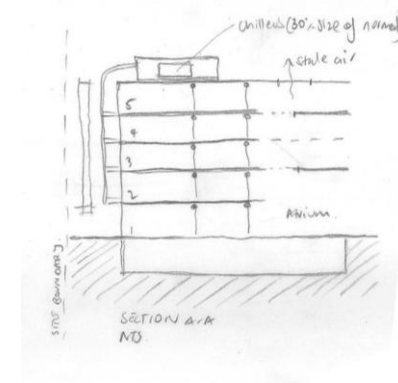
2.1.3.4 NZI Building

Location **Auckland**

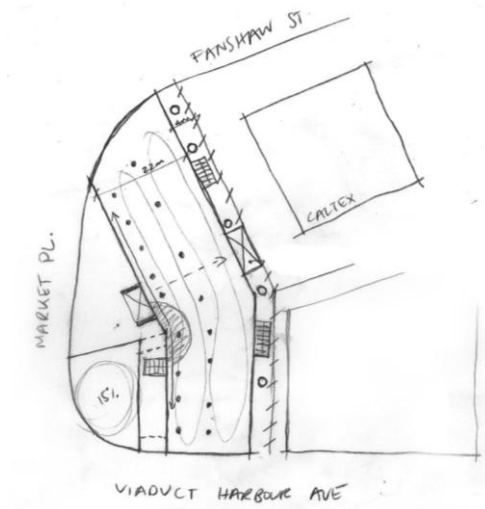Direct user **IAG**

Architect **Jasmax**

Fig.4[38]

---

[38] Sustainable Business Network, "*NZI Building*", http://sustainable.org.nz/uploads/images/nzi_building_web.jpg (accessed May 27, 2009)

The new NZI office building located in Auckland's central business district is the second example with a much defined footprint due to the building density in the area. Externally, judging by the building facade, it seems that the floor plates are the extruded footprint of the site. Where as, in fact, the floor plates are a different shape to the footprint as a result of the major internal atrium occupying the very corner of the site. This atrium acts as a light core, enhancing the penetration of natural light onto the floor plates. The light core also acts as the main social core. The ground floor of this social core accommodates the lobby (main entry), public cafe, main staircase and elevators, and the cross-group meeting spaces which are suspended at one end of the atrium space. It seems that the atrium provides a very strong vertical connection between the main workspace floors and the staggered floor plates of the meeting spaces. One could agree, "The floor plan provides active internal communication and workplace interaction."[39]

The staggered floor plates designed for cross-group meetings are physically detached from the main floor plates with bridged walkways crossing through the space. This is the strongest commitment to space and also seems to be one of the most successful parts of the design. This office building offers the most quality spatial 'Architectural Core' out of the four case studies.

The main floor plates have similarities to 'Buerolandschaft' planning and are also an extrusion of the Level one floor shape. However these floor plates have decisively been made long and thin; allowing more natural light to penetrate deeper onto the floor plates.

---

[39] Jasmax, "*NZI Centre*", http://www.jasmax.com/#/Portfolio/NZI_Centre (accessed May 25, 2009)

The illustrated study of the floor plan below, describes the approach this design takes to the issue of Program Instability and Flexibility. A key design strategy is to place all space defining elements (fire stairs, elevators, columns, services) to the edge of the main floor plate, this way making no permanent commitment to space in the actual 'Architectural Core'. Then, in order to define the separate groups on each floor plate, fit out elements are added to form sub-group areas i.e. inner group meeting rooms, furniture, partition walls.

Issues of territorial disruption are also considered by moving columns to the side of the floor plate creating a circulation path that stretches along the whole length of each floor. By dividing groups along this path, fewer people have to move through a group in order to reach their own.
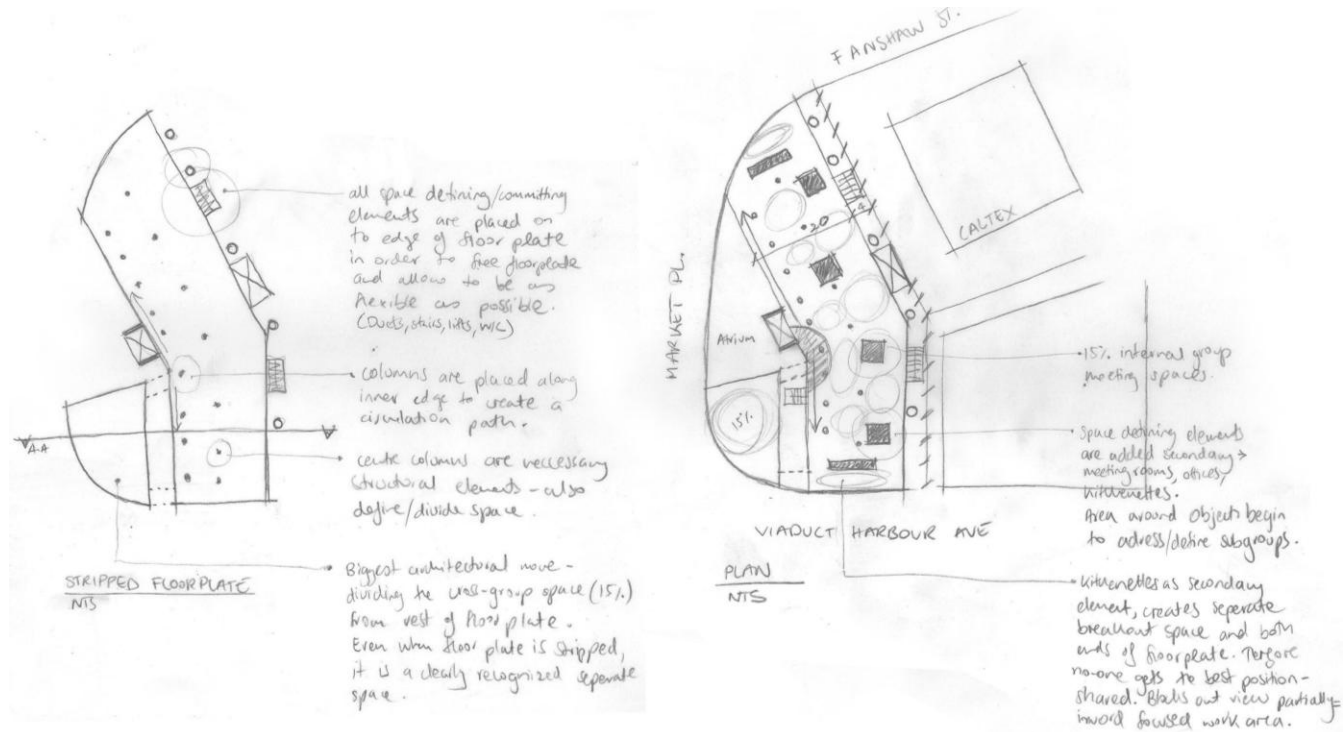
2.2 Concepts in Theory

2.2.1 Role and Role Setting

To develop on the importance of 'Role', which has been brought to attention in 2.1.6 Hierarchy, Status, Role, Goffman's Concept of 'Role Setting'[40] shall be explored as it leads to one of the fundamental problems in office planning and central issue in this debate: 'Program Instability'. Program Instability is the catalyst for this lack of commitment and consequently Formlessness and Non-space, Non-event.

It has been established, at this point, that it is the Role that is more important and Status has been recognised as unstable. Therefore Role Setting becomes the primary factor that can still be explored as a possible conceptual driver for the organizational structure. Role Setting influences the physical spatial requirements for any person in the office. Each different Role/activity requires a different setting, making every Role Setting very specific. Each Role Setting provides different boundaries and types of communication, space, privacy etc depending on each Role and number of Roles every person has. It is when this is not allowed for that we experience Role Conflict (even more so when one person has multiple Roles).[41] But there are so many types of Roles and Role Conflicts that it seems impossible to define precisely what aspects of a Role Setting are essential to support a specific Role.[42] Therefore, Role is also identified as an unstable concept. An 'Architectural Core' dependent on Role and Status will seem

---

[40] Francis, Duffy. *The Changing Workplace (*London: Phaidon Press Ltd, 1992), 35. Goffman's concept of 'Role Setting' is cited by Francis Duffy in the book *The Changing workplace*.

[41] Francis, Duffy. *The Changing Workplace (*London: Phaidon Press Ltd, 1992), 32-34

[42] Ibid. 35

somewhat generic and formless. Thus suggesting that the building has not been designed and the real problem is still ignored.

So why not let the different Role Settings be the constant and let staff move around and use the variety of spaces as required? Although neither Role nor Status have been identified as possible drivers for the 'Architectural Core', a space or setting of better quality implies that the "dance" of Role and Status might be played out in the more complex spatial arrangements they are being put into. The pancake stack of floor plates does not allow much of a "stage" on which to display Status or organise Roles and their interconnections.

'Buerolandschaft' equation: Constant = staff, variable = space
New equation: Constant = space, variable = staff

"…one of the functions of the city is to provide a mass of possible role settings. It may be this richness of scenery which makes certain city streets and squares so attractive that it is easy to inhabit them in the imagination."[43] – Francis Duffy

At the end of the day these Role Conflicts are within the work group and don't impinge on the design of the 'Architectural Core'. Furthermore, Roles and Role Settings take place anywhere regardless of the architecture, so they cannot determine it. Role and role settings are simply an aspect of Program Instability; both too unstable to become a primary conceptual driver.
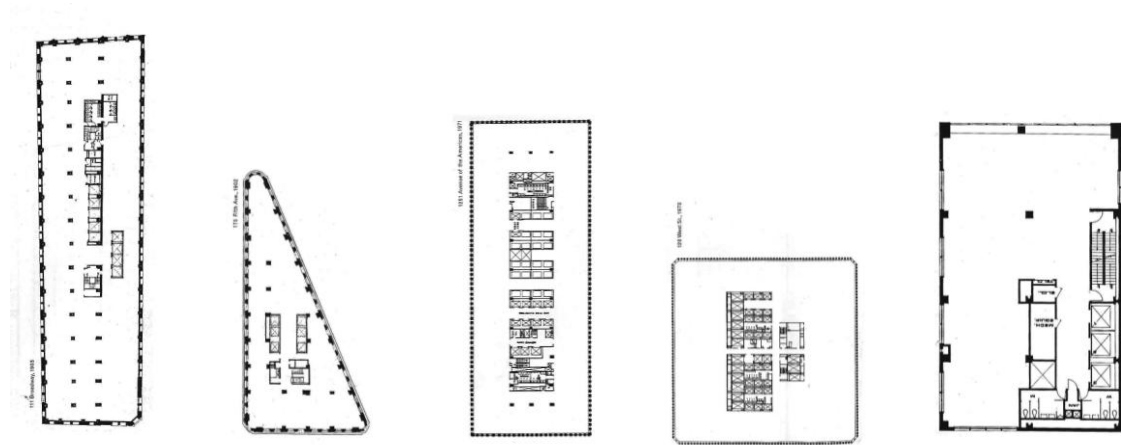
---

[43] Ibid. 34

2.2.2 Typical Plan

Fig.5 [44]

"Just as The Man Without Qualities haunts European literature, "the plan without qualities" is the great quest of American building."[45] *-Koolhaas*

'Typical Plan' is an American invention, developed from the late 19th century to the early 1970's. In *S,M,L,XL: O.M.A*, Rem Koolhaas introduces this type of office plan which, like the 'Buerolandschaft', is a development of the Open-Plan. The purpose of these office buildings was to create ideal accommodation for business. The clearest description of this spatial structure is: floor plans in the shape

---

44 Rem, Koolhaas and Bruce, Mau. *S,M,L,XL: O.M.A. (*New York: The Monacelli Press, 1995), 335, 337, 342, 346

45 Rem, Koolhaas and Bruce, Mau. *S,M,L,XL: O.M.A. (*New York: The Monacelli Press, 1995), 336

of the site simply multiplied and extruded as many levels as desired. It is this way that it became the epitome of generic architecture, stripped of all traces of uniqueness.[46]

Like the 'Buerolandschaft' and Open-Plan, Typical Plan is deep and therefore denies a user controlled environment.[47] It does not assume that contact with the exterior world is necessary for human well being. Koolhaas also refers to the Corridor Office as the 'European Office'[48], which unlike Typical Plan considers its environment and occupants who need light and air. [49] Today's offices have recognized the value of user control and, in particular, the importance and influence of the exterior environment. Although office plans, especially in New Zealand, are often still deep and go past the recommended 5 meter distance that a person should sit from a natural light source[50], there is an awareness of the importance of this issue.

As cited by Koolhaas in *delirious new york*, Raymond Hood, one the inventors of Typical Plan stated:

"The plan is of primary importance, because on the floor are performed all the activities of the human occupants."[51]

---

[46] Ibid. 335-6

[47] Ibid. 339

[48] Ibid. 349

[49] Ibid. 349

[50] David, Littlefield. *Metric handbook: planning and design data*. 3rd ed. (London: Architectural, 2008), Chapter 12: Offices, 1.04, 5.03. The New north European type of office building planning and design criteria states that the furthest distance from perimeter should be 5m with a typical office depth of 10 m. In section 5.03, the Metric Handbook states that the floor depth should have either a glass-to-core depth of 9-12m or a glass-to-glass depth of 13.5-18m.

[51] Rem, Koolhaas. *delirious new york* (New York: The Monacelli Press, 1994), 157

This statement is arguable. What the plan disregards is vertical connection. There is an importance in the relationship between floor levels and without the cross-section one cannot explore or develop accurately the necessary relationships between and the movement patterns of the direct users. The plan can not be of primary importance as you can build an office block on any shaped site. There are parts of the plan that are important, such as the design of the service core, but not demanding spatially at all.

Through his analysis of Typical Plan, Koolhaas introduces some key concepts that will run right through this study: 'Program Instability', 'Formlessness' and 'Non-space, Non-Event'. All three of these concepts have a common link to the underlying problem: a lack of commitment to space in the office space.

2.2.2.1 Formlessness

Business changes Program. When the market changes, businesses must adapt to this in order survive and grow. This in turn demands something new of the office space thus leading to the problem of Program Instability. Formlessness results from a poor understanding of flexibility: the flexibility that is necessary to absorb Program Instability. It is this that underlines the very core of the study.

"What is business? Supposedly the most circumscribed program, it is actually the most formless….it does not demand a particular architecture, its only function is to let its occupants exist. Business can invade any architecture."[52] -Koolhaas

---

[52] Rem, Koolhaas and Bruce, Mau. *S,M,L,XL: O.M.A. (*New York: The Monacelli Press, 1995), 337

Typical Plan is rectangular. Any other shape becomes atypical. It represents pragmatism, utilitarianism, rationality and efficiency.[53] This type of office space is neutral, undefined, and formless. The idea behind Typical Plan is that whatever structure (form) the organisation takes on, it has an unlimited freedom to unfold within.

2.2.2.2 Non-space, Non-event

"Typical Plan implies repetition-it is the nth plan…
Typical Plan x n = a building (hardly a reason to study architecture!)"[54] -Koolhaas

This is where we get to the core of the architectural problem: translating a program into architecture. But if the program is unstable, how do you do that? Like the Open-Plan and the 'Buerolandschaft', Typical Plan makes no choices architecturally. It is as empty as possible: a floor, a core, a perimeter, and a minimum of columns. All other architecture is about making decisions: defining specific spaces for specific events but Typical Plan is about allowing for, what Koolhaas describes as 'non-event'. This in turn can only lead to the creation of 'non-space'.[55] There is a lack of commitment in Typical Plan that exists even in a lot of today's office buildings. This could be because it has yet to be found what office architecture needs to commit to that will consequently determine a more quality spatial 'Architectural Core'. For now it seems that what largely defines the organisational structure of the office user lies first

---

[53] Rem, Koolhaas and Bruce, Mau. *S,M,L,XL: O.M.A. (*New York: The Monacelli Press, 1995), 338

[54] Ibid. 342

[55] Ibid. 344

and foremost within the business of interior design. As Koolhaas says, it seems to be a "…*type defined by all the qualities it does not have…*" [56]

This *'Genericism'* does not only affect the office space. The generic object that is the office building affects the city centre as this too becomes universal and unidentifiable.

"Did the plan without qualities create men without qualities? Was the space of Typical Plan the incubator of the man in the grey flannel suit?"[57] –Koolhaas

2.2.3 Defining Good Office Space

The key goal of the employee/corporation is to achieve maximum productivity. In order to achieve this, one must create the best possible environment that allows for human well-being. A criterion has been established in the provision of four key principles that define good office space: light, social interaction, specificity and quality. These principles will be referred to during the design process: by using a specific program of social interaction (social structure), at one moment in time, in order to create a quality 'Architectural Core' for an organisation. These four principles have been chosen because they are ones that can be controlled architecturally. Other factors that have an influence in creating a good office space, but ones that cannot be controlled architecturally are: managerial issues, internal functioning of the corporation and what services the employer offers staff.

[56] Ibid. 345
[57] Ibid. 346

2.2.4 The Importance and Unimportance of Physical Space

This is about social interaction and communication. The importance is physical interaction and communication. Technology suggests the unimportance.

We are moving into a working world where we find ourselves more commonly bound to technology: tied to our laptops and cell phones. Though simultaneously, we are being "liberated" from the confines of physical space. Therefore in theory, physical space is becoming less necessary in order for us to carry out and accomplish our work. The following critique will aim at emphasizing that although, technically, physical space is less necessary, it is still extremely important milieu in which to carry out good work.

The following information from the *2008 Metric Handbook* is the first example suggesting a growing freedom from physical space in the urban work environment.

"Many organizations, particularly in the services sector, already find that up to 40 per cent of their staff are away from the building at any one time, 12.14. It is not therefore appropriate to plan for 100 per cent occupancy by all employees. This leads to the concept of 'free addressing': an employee does not have a personally assigned desk, but uses any convenient free desk when he or she is in the office, and with mobile phones or new PABX technology they keep their own extension numbers."[58]

---

[58] David, Littlefield. *Metric handbook: planning and design data*. 3rd ed. (London: Architectural, 2008), Chapter 12: Offices, 4.04

100% — 80% — 60% — 40% — 20% — 0%
8:30 9:30 10:30 11:30 12:30 13:30 14:30 15:30 16:30 17:30 18:30

☐ empty   ▨ temporarily unoccupied
■ visitor occupied   ▦ owner occupied
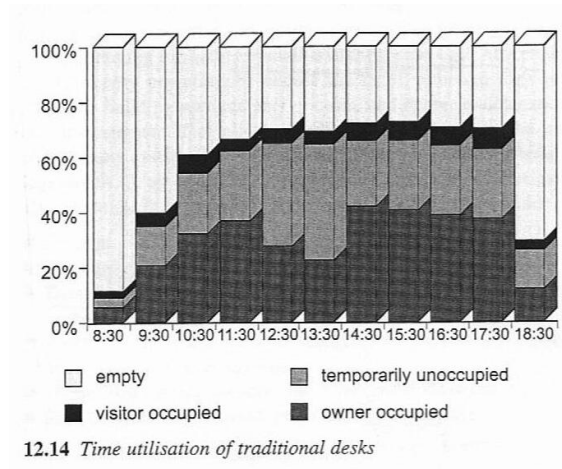
12.14 *Time utilisation of traditional desks*

Fig.6[59]

Gerald Sussman also addresses the issue of communicating largely through electronic communications in his article, *Urban Congregations of Capital and Communications: Redesigning Social and Spatial Boundaries*. His key argument is based on how the world has restructured due to telecommunications and that society is now reconceptualising space and the way we interact and socialize. Due to telecommunications we now have greater spatial mobility and Sussman proffers the primary question, *"...does place still matter?"*[60]

---

[59] David, Littlefield. *Metric handbook: planning and design data*. 3rd ed. (London: Architectural, 2008), Chapter 12: Offices, 4.04

[60] Gerald, Sussman. "Urban Congregations of Capital and Communications: Redesigning Social and Spatial Boundaries". *Social Text,* No.60, Autumn (1999): 42

To strengthen the positive answer to this argument, Sussman introduces the views of Saskia Sassen:

"Telecommunications cannot replace these networks beyond the possibility of acting on new information obtained in a face-to-face encounter. The complexity, imperfect knowledge, high risk, and speculative character of many endeavours…heighten the importance both of personal contact and of spatial concentration." [61]

What both Sussman and Sassen stress is the importance of actual real physical communication and interaction in the workplace. In light of this, it can be argued that space absolutely does matter. Physical space allows for physical interaction. Although technology suggests the increasing unimportance of physical space, face-to-face communication allows for the contribution of body language i.e. facial expression which permits for a much higher level of communication. Consequently, one could conclude that the physical space that is occupied to carry out business is a crucial factor to be considered, as in today's society belief lies largely in communication in order to carry out successful work.

"Electronic communications […] does not substitute the need for direct personal communication within institutions and clusters…"[62] – Sussman

---

[61] Gerald, Sussman. "Urban Congregations of Capital and Communications: Redesigning Social and Spatial Boundaries". *Social Text,* No.60, Autumn (1999): 42

[62] Ibid. 45

The people that are part of this work style, based on shared working practices of collaboration, initiative and exploration, are also referred to as 'knowledge workers'[63]. 'Knowledge work' is now the most common style of working in most of the world's advanced economies[64], where workers tend to identify themselves by their knowledge rather than by their corporate rank within the organization.[65]

"Offices were once rooted in a work ethic in which conviviality and comfort had no place. Workplaces were functional and impersonal and frowned on social contact. But in the creative office, there is a growing recognition that work has a social dynamic which is productive and valuable."[66] - Jeremy Myerson

---

[63] A term which was first used in 1960 by the American economist Peter Drucker.

[64] Jeremy, Myerson and Philip, Ross. *Space to Work: New Office Design (*London: Laurence King Publishing, 2006), 8

[65] Jeremy, Myerson and Philip, Ross. *Space to Work: New Office Design (*London: Laurence King Publishing, 2006), 13

[66] Ibid. 126

With the conclusion that space is required for office activity and that real face-to-face communication is required for effective business achievement, it then becomes important to consider the quality of that required space.

People will occupy a space that is enjoyable more frequently causing a higher likelihood for chance encounters and work-related problem solving. We may not depend on physical space as much but we still need it. A good example of the importance of physical space is in the use of public buildings such as libraries.

Libraries are not just used as a book source but also for their spatial quality. They are vibrant and social providing the opportunity for different levels of interaction, withdrawal and enjoyment. The variety of spaces and levels of enclosure allow a variety of opportunities to inhabit the spaces: alone, in small groups and in larger groups. Physical space brings people together: allows the opportunity for people to meet and experience chance encounters; something that "real actual" telecommunications does not.

Fig.7[67]   Wiel Arets, University Library, Utrecht   Fig.8[68]   Wiel Arets, University Library, Utrecht

[67] Flickr, *"Wiel Arets Library, Utrecht 09"*, http://www.flickr.com/photos/morphinaorg/427284666/ (accessed July 2, 2009)

[68] Danda, *"University Library of Utrecht by Wiel Arets"*, http://www.danda.be/reviews/university_library_of_utrecht_by_wiel_arets/ (accessed July 2, 2009)

Fig.9[69]   COBE, Culture House and Library, Copenhagen

Fig.10[70]   COBE, Culture House and Library, Copenhagen

[69] Alberta Norweg A.I.E, *"Copenhagen Culture House + Library by COBE and Transform"*,
http://1.bp.blogspot.com/_6M5RbpxhRR4/SdeOVs-pTfI/AAAAAAAABE4/aenT_QJIJns/s1600-h/07.jpg (accessed July 2, 2009)
[70] Alberta Norweg A.I.E, *"Copenhagen Culture House + Library by COBE and Transform"*,
http://2.bp.blogspot.com/_6M5RbpxhRR4/SdeOft-GANI/AAAAAAAABFg/DIn-kQbi9jE/s1600-h/02.jpg (accessed July 2, 2009)

Fig.11[71]   Hans Scharoun, Library, Germany

Therefore one should want to encourage use of such an office building, even if you do not NEED to all of the time, in order for more chance encounters to occur. Office architecture needs to be a quality physical space in the hopes of exceeding productivity expectations through social interaction.

"Gimmicks" also suggest what types of spaces we want to inhabit. This term refers to the architectural non core elements i.e. fit out. These come with each client for a space that then finds places to inhabit in the actual 'Architectural Core' of the "specific generic" building. This suggests that we want a variety of spaces to inhabit and that the 'Architectural Core' of a generic office building does not satisfy the spatial requirements.

---

[71] Flickr, "Berlin Staatsbibliothek, by Hans Scharoun", http://www.flickr.com/photos/14580232@N04/2667069257/ (accessed June 26, 2009)

Examples of such gimmicks include playground-type objects, themes and colours are often added in offices. The architectural core should provide this quality of space or richness that is currently absent in the generic office building. The following analysis is an example of this concept:

Fig.12[72]

- Advertising Agency
- Completed 2001
- 2,039 m² Floor area
- Accommodates 120ppl.

MEZZANINE:
OPEN PLAN
WORKING
SPACE.

CELLULAR
OFFICES

GROUND FLOORS
OPEN PLAN
WORKING
SPACE.

3 WINGED
CONFERENCE
ROOM.

INDOOR
GARDEN

• The Open Plan
works well for communication
and social interaction. Allows
freedom to personalise one's
workspace.

This office interior aims
at providing a variety
of different workspaces &
spatial experiences.
There are achieved through
addition of structures into
the space.

I would like to apply
this concept to the
actual space - rather
than filling in the space.

phone booth structure clad in
green carpet that is used for
conference call

MEETING ROOM

KIRSHENBAUM BOND & PARTNERS WEST
SAN FRANCISCO, USA
JENSEN & MACY ARCHITECTS

---

[72] Jeremy, Myerson and Philip, Ross. *Space to Work: New Office Design (*London: Laurence King Publishing, 2006), 16-21

Though physical space is vital for real social interaction, the importance of space shouldn't just be recognized for this but also for its ability to stimulate the mind. Telecommunications allows one to sit in one spot all day long and achieve everything. But this can often cause boredom due to lack of movement: physical stimulation and mental stimulation. In order to keep the mind focused, we must create a series of engaging or complex spatial arrangements that allow the opportunity for mental stimulation.

In part three of *The Craftsman,* Richard Sennett discusses "craftsmanship" and the desire to do good work. Sennett claims that**:**

"… [Boredom] results from closed systems of routine. Release from boredom can occur only because the domain shift reengages us mentally." [73]

In the actual act of working, what people do to prevent boredom is to shift from task to task. If one sits doing the same task over a long period of time, one is more likely to loose focus. The same concept can be applied to architecture. By providing different, stimulating spaces and encouraging movement through and use of them, we can attempt to continually reengage the employee and prevent boredom through visual changes in space and form. Monotony is boredom.

---

[73] Richard, Sennett. *The Craftsman* (Great Britain: Allen Lane, 2008), 280

Christopher Alexander's central concern is, *"…the relationship between human beings and the environments that surround them."*[74] Alexander argues that the built environment has a strong influence on the relations among people, though it does not determine how people will behave. One can only provide the opportunity for social interaction to occur but one cannot force or determine it. The key idea taken from this is to recognize the importance of how the direct user perceives space and form and how it can affect their well-being and work efficiency. The book, *A Pattern Language*, will be a main source used to justify the formal response to this research question.

There are several 'patterns', from Christopher Alexander's *A Pattern Language*, that will be referred to as evidence, that the 'Architectural Core', with more defined intimate spaces, designed specifically for one group, can in fact absorb change within the structure of an organisation or absorb a completely new user. That there is an underlying social pattern within all business based on communication.
It has been identified that very small workspaces, where users work in isolation, are unsuccessful as there are not enough people for any sort of intimate social structure to develop. On the other hand it has been identified, that very large, undifferentiated space (such as the 'Buerolandschaft') are also unsuccessful, as there are so many people in one space that there is no opportunity for an intimate social structure to occur.[75]

---

[74] Brian, Walker. "Another kind of Science; Christopher Alexander on Democratic Theory and the Built Environment". *Canadian Journal of Political Science*, Vol.36, December (2003): 1053

[75]Christopher, Alexander. *A Pattern Language: Towns, Buildings and Construction* (New York: Oxford University Press, 1977), 702

"When more than half a dozen people work in the same place, it is essential that they not be forced to work in one huge undifferentiated space, but that instead, they can divide their workspace up, and so form smaller groups." [76]

Firstly, these established ideas on successful and unsuccessful work group size can be supported by the Pilkington Research Unit[77], who carried out a study where office workers were asked their opinions different sized offices. Smaller workgroup layouts were preferred as presented in the diagram below.

The five layouts in order of preference.
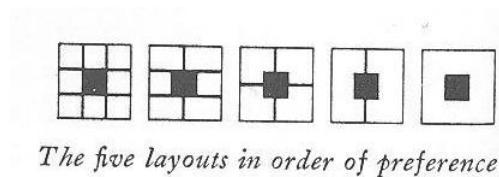
Fig.13 [78]

Secondly, in a survey done for *A Pattern Language*, it was found that people preferred to be part of a group that ranges from two to eight. Any larger, and the feeling of group starts to weaken.[79]

In light of this, it is reasonable to suggest an 'Architectural Core' that commits to smaller, more intimate workspaces. It seems there is an underlying pattern to the social structure of all business organizations which rely on a work style based on communication; suggesting that the 'Architectural Core' can absorb new organisational structures.

---

[76] Christopher, Alexander. *A Pattern Language: Towns, Buildings and Construction* (New York: Oxford University Press, 1977), 702

[77] Ibid. 702

[78] Ibid. 702

[79] Ibid. 703

In *A Pattern Language*, the below graph is referred to specifically in relation to meeting rooms but one could argue that it can also be referred to when discussing general group sizes. The graph supports the idea that: the larger the group - the less depth of communication.[80]

As size of group grows, more and more people hold back.
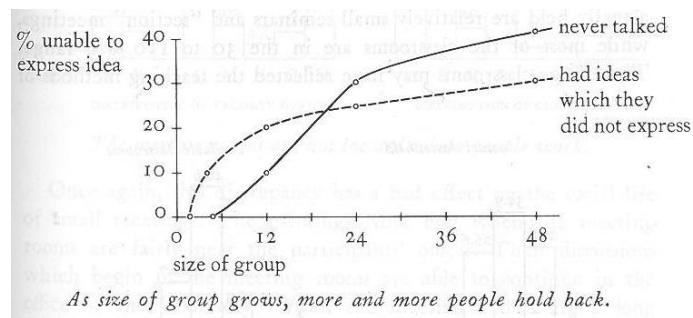
Fig.14 [81]

---

[80] Ibid. 713

[81] Ibid. 713

"People cannot work effectively if their workspace is too enclosed or too exposed. A good workspace strikes the balance."[82]

Due to the 'Buerolandschaft' still being apparent in current office buildings, people often feel too exposed in the vastness of the plan. Though, it is also possible to feel isolated in the Corridor Office. Therefore a balance must be found; a building with just the right level of intimacy in spaces to create a higher quality workspace.

To support this idea of creating a more defined spatial 'Architectural Core', we might look at a few of the "significant" hypothesis of an experiment conducted in *A Pattern Language*:

"1. You feel more comfortable in a workspace if there is a wall behind you. ...2. You feel more comfortable in a workspace if there is a wall to one side. ...5. Each workspace should be 50 to 75 per cent enclosed by walls or windows. ...8. It is uncomfortable if you are not aware of at least two other persons while you work. On the other hand, you do not want to be aware of more than eight people. (If you are aware of more than eight people, you lose a sense of where you are in the whole organization..."[83]

Alexander also discusses the issue of flexible office space and what "real flexibility" is. As it has already been established, a big part of business is program instability. Both of the standard office types, Corridor Office and the 'Buerolandschaft', are not genuinely flexible.

---

[82] Ibid. 847

[83] Ibid. 848-850

Corridor Office aims at achieving flexibility, in response to program instability, through moveable partition walls. The problem though, is that these partitions are usually very expensive to move and therefore often do not get moved. Also, it is usually not possible to make minor changes in partition systems, because if one wall is moved it will affect all the other spaces. Therefore they are also usually not moved. So, it is concluded that modular partition systems are not flexible as they usually get treated like normal walls anyway. Furthermore, they are less useful than ordinary walls for defining territory and creating a more enclosed workspace. [84]

'Buerolandschaft' has no partitions and is more genuinely flexible. Though as established earlier, people prefer small workspaces to larger ones as this for a much more cohesive, intimate working group. Therefore the 'Buerolandschaft' is also unsuccessful; it is not truly flexible because it is a non-space.
This idea supports the suggestion that an altogether different approach to flexibility is needed: one that will *support the natural structure of workgroups."*[85]

In light of the above understandings, the project aims to create a work environment that provides mental stimulation through application of a formal principle that is based on the specific structure of an organisation. The spatial arrangement shall reflect the social structure and consequently create a quality 'Architectural Core' that is dynamic and stimulating.

---

[84] Ibid. 690-691

[85] Ibid. 692

3.0 Methodological Approach

My selected research approach will be a qualitative method, thus being highly subjective and interpretive. Research problems will be identified and solved through the following outlined approaches.

3.1 Methods of Data Collection

No data has been collected personally. All necessary systematic data has been acquired from already collected sources. This data has been sourced through methods of verbal communication, internet, books, articles and searching statistics.

3.2 Theoretical Approach

In light of the understandings established in Chapter 2.0, I want to outline the gap left open for my own investigation. My statement defining this gap is: to identify social structure in the 'Architectural Core' of the urban office space.

The fundamental method is to recognise the importance of social structure and the impact it can have on architectural form. The proposal is that one does not necessarily need to design a space for "anything", a *generic* design or "non-space", and therefore "nothing" in order for the building to be flexible. I expect that by designing a building that is a response to a specific client program at one moment in time, without predicting any future circumstances, this will produce a building that has spatial quality or richness that a new business structure or a completely new user can take advantage of. Recognizing the importance of and making a certain spatial commitment to the social structure and various levels of social interaction within the organization whilst also taking into consideration all other established criteria that make a good office building.

The theoretical approach provides the grounding information that will support the formal approach. In order to do this, the following steps have been taken:

A thorough site analysis is undertaken in order to establish the most suitable site for the project and consequently to survey the immediate and surrounding physical site conditions and social context.

Site visits to larger office buildings in Auckland are carried out in order to become familiar with the most current standards of this building typology, specifically the current situation in a similar location. Further precedent studies are carried out into successful and unsuccessful workspaces and their effectiveness, key conceptual and theoretical focus and relationship to site context. Other precedents of use to this project are also examined.

Once the site is chosen and project outlined, a specific client brief is obtained: a larger organization with a well-defined social structure. This will be done through interviews[86] with current practitioners in the field, these interviews also furthering current state of knowledge, though this information being purely subjective.

Text research has a major influence in establishing a personal theoretical stance in the matters surrounding this research question.

---

[86] Two Interviews with a director of Jasmax, Tim Hooson, have been the source of the specific client brief: IAG Accommodation Brief: October 2007

3.3 Formal Approach

This project is a spatial exploration of the urban office space. Therefore the formal approach is of key importance. Several solutions are explored in The Design Process before the most appropriate method is selected. The selected approach is based on the deconstructing[87] of the social structure of the specific organisation. This shall reflect in the 'Architectural Core'. Secondly, it is of key importance that the social structure shall be divided horizontally across the site, as opposed to the more common vertical stacking of floor plates and division of groups accordingly.

The design will be explored through design tools such as sketches, physical models and computer models in order to have a full understanding over the spatial arrangement.

---

[87] Judy, Pearsall (ed.). *The Concise Oxford Dictionary: Tenth Edition, Revised* (New York: Oxford University Press, 2001), 373. The term 'deconstructing' refers to the meaning of definition A, not definition B, defined here: A. deconstruct: *"dismantle and expose the workings of"* B. deconstruction: *"a method of critical analysis of philosophical and literary language which emphasizes the internal workings of language and conceptual systems, the relational quality of meaning, and the assumptions implicit in forms of expression."*

3.4 Presentation

The final presentation, in terms of examination and written document, is very important as it affects the way the project is portrayed. Presentation techniques used must support that this is a spatial exploration. Hand drawings, sketches, three-dimensional models and Photoshop rendering techniques will be used to present the process and architectural solution. This will portray the idea that this is a conceptual process; the opposite to how office buildings are usually perceived. This being: in a more technical manner architecturally, and primarily in a social manner in terms of interior fit out. Therefore presenting the formal process is very important, as well as the final outcome.

4.0 Project Development

4.1 Site Analysis

A suitable site is to be located in the Auckland Central Business District or surrounding area. A site located here would suit my research intention because this is the largest business district in New Zealand and clearly shows examples of unsuccessful office buildings. This design approach is internally focused so site will not be a major design driver.

4.1.1 Criteria

Size: The site needs to be fairly large as this is where the real problem seems to develop. It is usually the larger office building that can be defined as generic.

Physically Dynamic: The site ideally needs to present opportunity for a specific form. Footprint, surrounding building heights and overall volume should be physically interesting or unconventional.

Socially Dynamic: The site shall provide an opportunity for a richer social dynamic for the occupants of the building and for users of the surrounding site. Apart from trying to solve the issues of the direct work environment, the aim is to try and socially incorporate the building into its immediate surroundings; letting functions feed off each other to maintain a vibrant city district. A site that does not yet have many office buildings would support this. The incorporation of another function that adds value to the surrounding context and draws people to the site will be considered e.g. retail, cafe. Work environments need the right social and physical conditions to get outstanding production.

4.1.2 Location

Located in Newmarket, central Auckland, an empty site in-between Teed Street and Kent Street has been chosen for the design project.

4.1.3 Analysis

Size: The site footprint is approximately 3,900m². Considering site context, the building may reach 5-6 storeys high. The total maximum floor area is an estimated 23,400m² if the building were simply an extruded footprint of the site. This concludes that the site is large enough to deal with the issues of the stated research problem.

Socially Dynamic: The site context is vibrant which works in favour of my program. The surrounding area is mixed-use so functions feed off each other.

Physically Dynamic: Surrounding buildings are fairly worn down and dull. This is something I intend to improve through addition of the project. Originally an element that made this site an attractive choice was the unusual footprint and surrounding building heights, making the overall volume unconventional. After analyzing the site closely, one major issue emerged. The surrounding buildings that give the site its defined boundary are all (except for one) fairly run-down, temporary and low structures.

Option A: Remove all 1-2 storey bordering buildings. It is probable that if this project were real that the 1-2 storey surrounding buildings would get removed and their footprints added to the overall project footprint. As a result the site would no longer be physically dynamic: simply one large, square corner site. And as developed in Solution C below, there is a more sensitive solution to dealing with the site.

Option B: Keep all bordering buildings. Whether it is the best option to tear down the surrounding buildings is arguable. To remove them would prevent the design of a new, larger building having to deal with the low, varying heights and pitches of the surrounding buildings and roofs – ones that will probably be removed in the next 5 years anyway. But if the bordering buildings were to be kept now and only be removed later, one would be left with the difficult task of filling the leftover spaces. Keeping all of them

also creates the more difficult task of dealing with boundary issues i.e. firewalls, natural lighting opportunities.

Solution C: The parking building bordering east of the site will be untouched and a major firewall bounding the two sites will act as a back to the proposed building. Buildings bordering the north facade will be removed and the footprints added to the overall project footprint. This will allow a primary facade access to northern light. The buildings located in the southwest corner will be kept. To allow for the possibility of natural lighting and ventilation along this site boundary, the proposed building will be pushed back from the boundary introducing an internal street and courtyard running through the site in an L-shape.
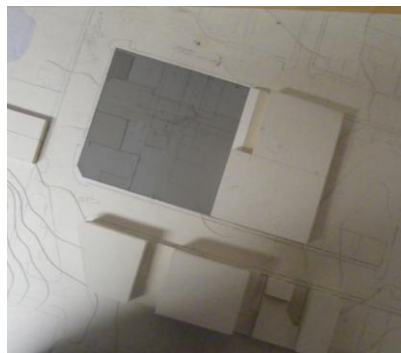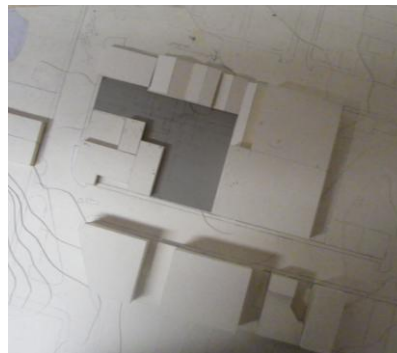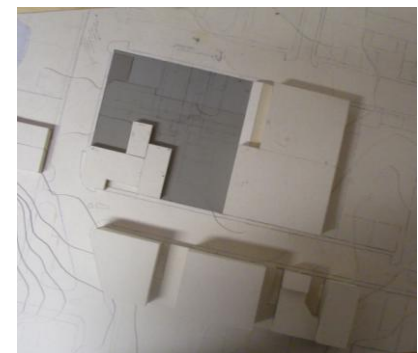
Option A   Option B   Solution C

4.2 The Design Process

Model 1: Initial Concept Sketch

Typically there is only a horizontal connection across the transparent floor plates of current office design. In this context transparent means no barriers to visual relationships between all the areas of the floor plate. This vertical disconnection is the primary problem that has been established through cross-sections in the precedent study. The sectional sketch illustrated below is a first attempt at solving this problem by integrating vertical spaces together: creating vertical connection.
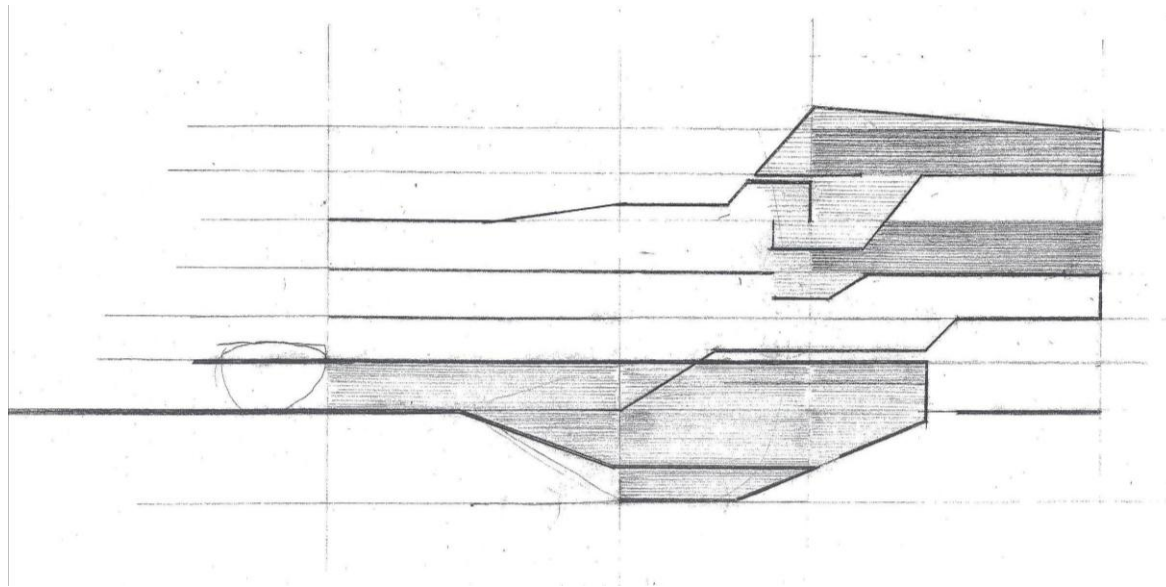
Model 2: Vertical Disconnection

This model is attempting to three-dimensionalize Model 1. At this stage, the strongest conceptual idea identified is 'vertical disconnection'. The key aim is to break up these strong horizontal elements through use of a now very important design tool: the cross-section. The stacking of floor plates, or 'pancake' affect, creates very flat spaces that are of poor quality and show no reference to the social structure of an organization. Creating a vertical connection through the model by interlocking the disjointed plates starts relating separate groups within the whole. This also starts producing a more quality space, which is often lacking in the *pancake* layout as all spaces are the same: regular.
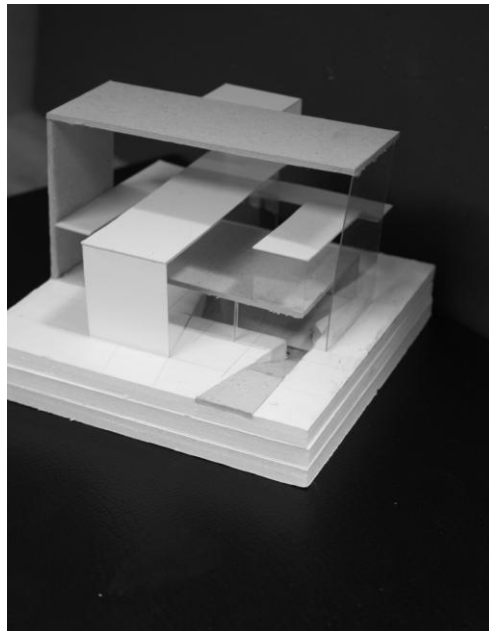
Model 3: A Core

A new concept is explored. The importance of enclosed space in offices is identified. These limited, defined spaces in the open-plan office support the open floor working areas. The enclosed spaces are also the only elements that start creating any indication of what is happening within the building through the actual 'Architectural Core' - not interior fit out. These enclosed support spaces hold the whole organizational structure (and now building structure) together. The enclosed area becomes the dominant element. This concept, enclosed space supporting open space, introduces the idea of a 'core' (not 'Architectural Core' as this term is not yet defined). The conceptual model pictured below consists of floor plates that are physically dependent on enclosed elements. This model is still trying to create 'vertical connection' by staggering the floor plates but the idea of a 'core' is established on top of that.
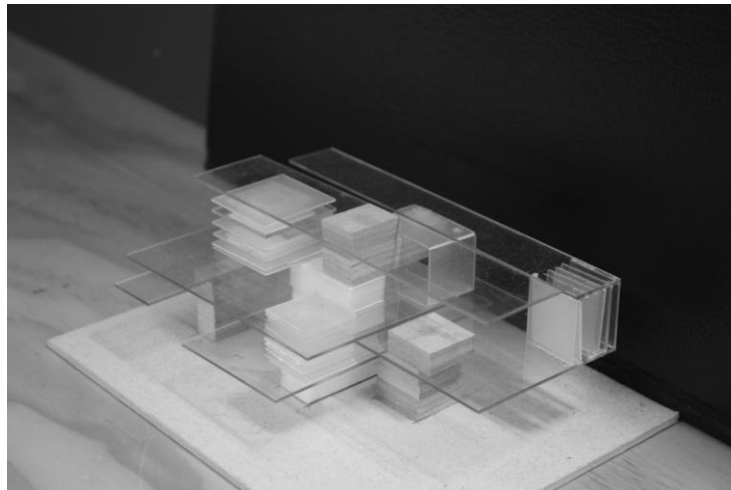
Further precedent study establishes that there are different types of cores in office building:

Service Core: Includes elevators, lavatory, service space and fire stairs. Each staggered floor plate must have a physical connection to the *service core* especially the fire stair, lift and main stair. This will have an underlying influence in the design process.

Social Core: This is usually one central space, often an *open* atrium, which becomes a concentrated social space for the w*h*ole organization. Often the main stairs are also found here, therefore creating a point where most people cross paths. The social core will most commonly double up as the *Light Core*.

Light Core: A necessary part of a deep plan which allows light to penetrate into the building thus reducing the distance between the furthest workstation and natural light source.

Meeting Core: This is a term personally established as a result of this project. The other core types already exist quite widely and are strong elements found in most current office designs. Currently, meeting spaces have been labelled as important elements but are still primarily identified through interior fit out rather than the through the 'Architectural Core'. In Model 3 they are conceived as key structural elements that are part of the 'Architectural Core' because they are the points where ideas get exchanged. Meeting cores allow for inner group meetings and cross-group fertilization.

'Architectural Core': The building stripped of all fit out. This is important to define in the case of this project as a lot of office design depends on interior fit out. This project however, aims at developing the concept of the 'Architectural Core' in order to develop quality workspace.
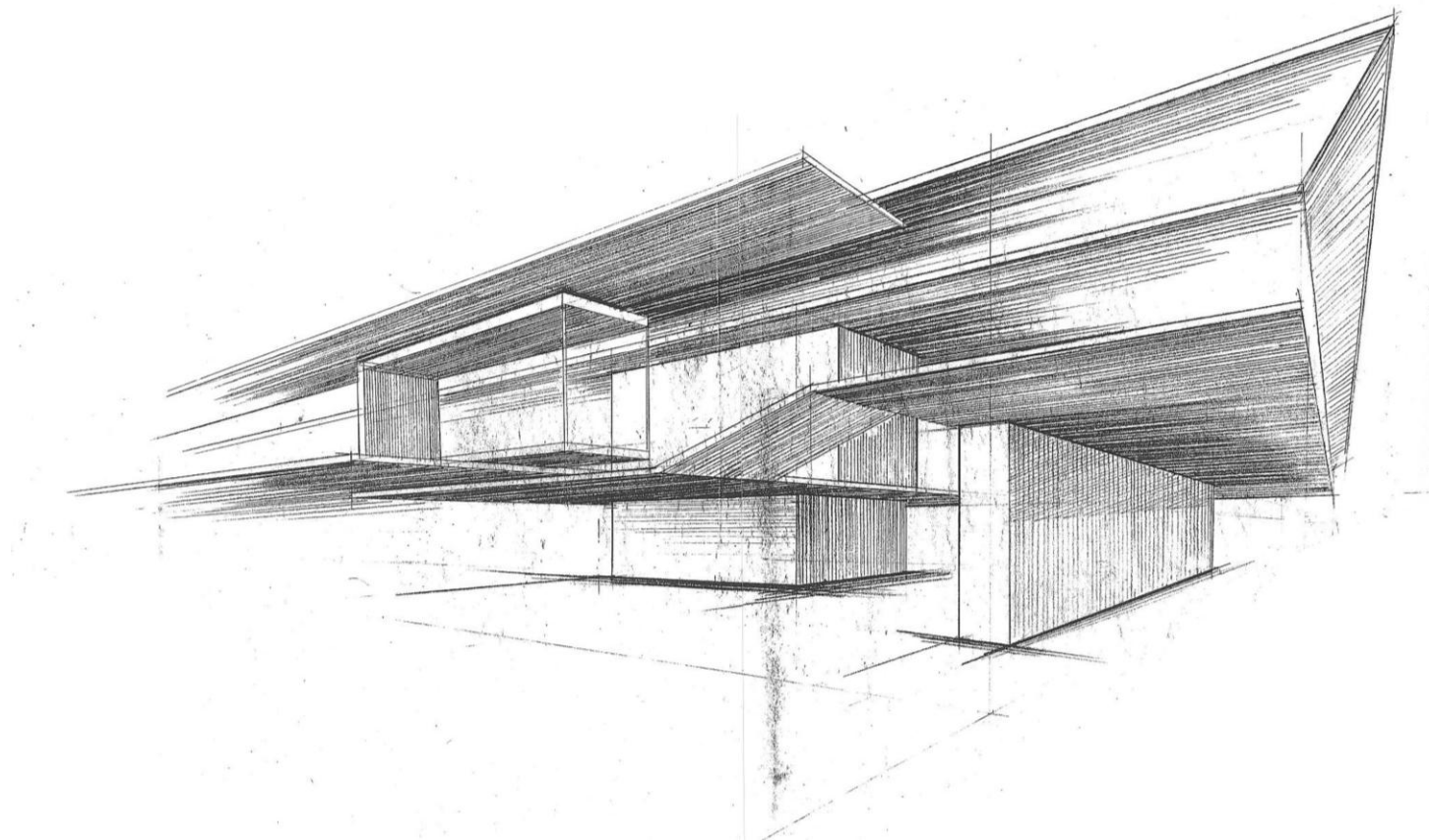
Sketch Development
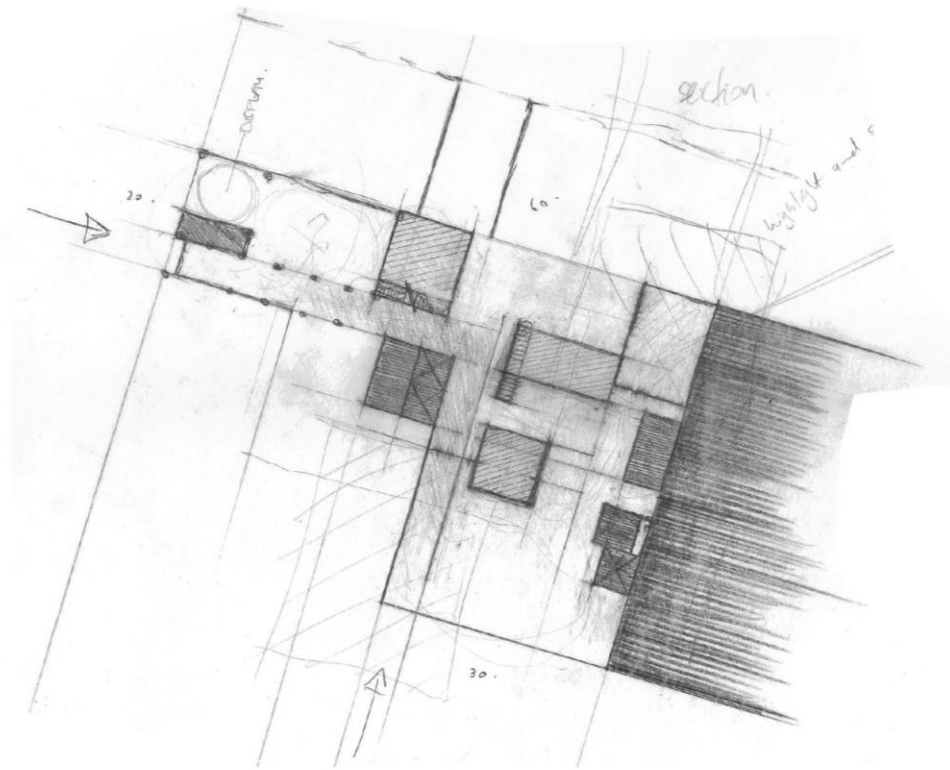
Concept Plan of Model 3 Development

Model 4: Meeting Core

Realising the most important core is the *Meeting Core;* this model uses the same principles as Model 3 but focuses only on this core. The main development apart from this is that this model breaks up the floor plates in a different manner, though still aiming at achieving the same vertical connection. Rather than aimlessly dividing the floor plates, they are now divided into 200m² as this is the standard floor area for one group in current European offices[88]. Each floor plate signifies a different working group within the organization. In this concept model one can start to recognise through the 'Architectural Core' the separate working groups within the overall social structure, with the *Meeting Cores* supporting and connecting the groups (floor plates)both visually and physically.
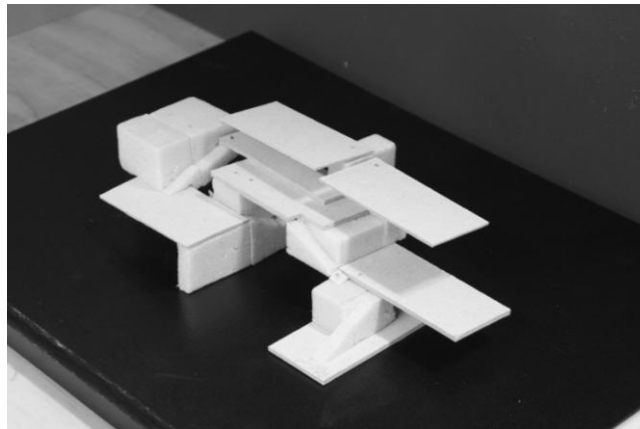
[88] David, Littlefield. *Metric handbook: planning and design data*. 3rd ed. (London: Architectural, 2008), Chapter 12: Offices, 1.04

Model 5: Development

Taking a section of Model 4, this development model explores the spatial dynamics of the Meeting Core joint; in-between two working group floor plates (in-between spaces)
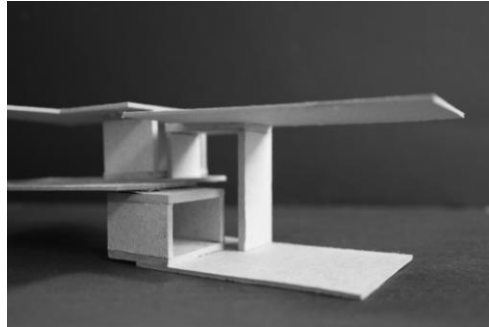
Model 6: Development

This is another developed exploration from Model 4. This time the Meeting Core (cross-group) element is exploded so the working group floor plates and the enclosed meeting spaces start becoming interdependent.
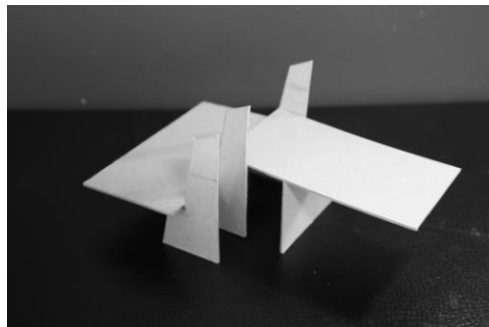
Specific Generic

At this point in the design process, it was established that the formal solution to this research question is to create a specific 'Architectural Core'. In order to produce a specific design a specific program is needed. Therefore it is fundamental to establish a specific client. The client will be referenced as hypothetical but will be based on an actual client so that real communication issues can be dealt with. An idea is starting to materialize but in order for it to progress, it must now be applied to a specific organisational structure.

With help of theoretical research it has been established that the primary problem of the large office building is *''Genericism''*. There is a definite recurring sense of 'non-space'. A lack of commitment to any type of specific program is apparent: a space created for 'non-event'. In current office design it is acknowledged that communication and social interaction are of key importance in order to enhance work efficiency. Since communication happens best when face-to-face, we can conclude that physical space can contribute to enhancing work efficiency. Common takes on physical communication as a driver have been architecturally translated into concepts of spatial transparency.

The idea of transparency is often meant to suggest that the organisation has nothing to hide and that social interaction and team work are of primary importance in their work ethic. Most importantly architecturally, this concept translates very nicely into an Open-Plan situation. Thus, conveniently, there is no real commitment in reflecting the specific user (and the social structure) in the architecture: formlessness. What this proposal is suggesting is the value of intimacy and enclosure: commitment.

This design response will take the opposite approach in translating this key idea of communication into architecture. Communication/ social interaction will be translated through ideas of *intimacy* rather than *transparency*.

Typically, the 'Architectural Core' of an office is generic and does not reflect the social structure of an organization. The experiment now is that by creating specificity, it will be possible to produce physical spatial quality that the current generic office building does not achieve. One could argue that this problem of formlessness depends on Program Instability and that is why we need to establish a program, at one moment in time, in order to produce something specific. By reflecting a social structure in the 'Architectural Core', it may be possible to create a stronger sense of place through creating group identity and therefore individual identity.

Finding a Client

Having established that social interaction is the foundation of this concept, a specific client was found. The specific client brief[89] will be used as a hypothetical client for this project. The organization is approximately the right size to adapt to this project. However, some adjustments have been made to reduce numbers.

---

[89] IAG Accommodation Brief: October 2007

First mind-map of the organization structure identifying the different groups and subgroups:
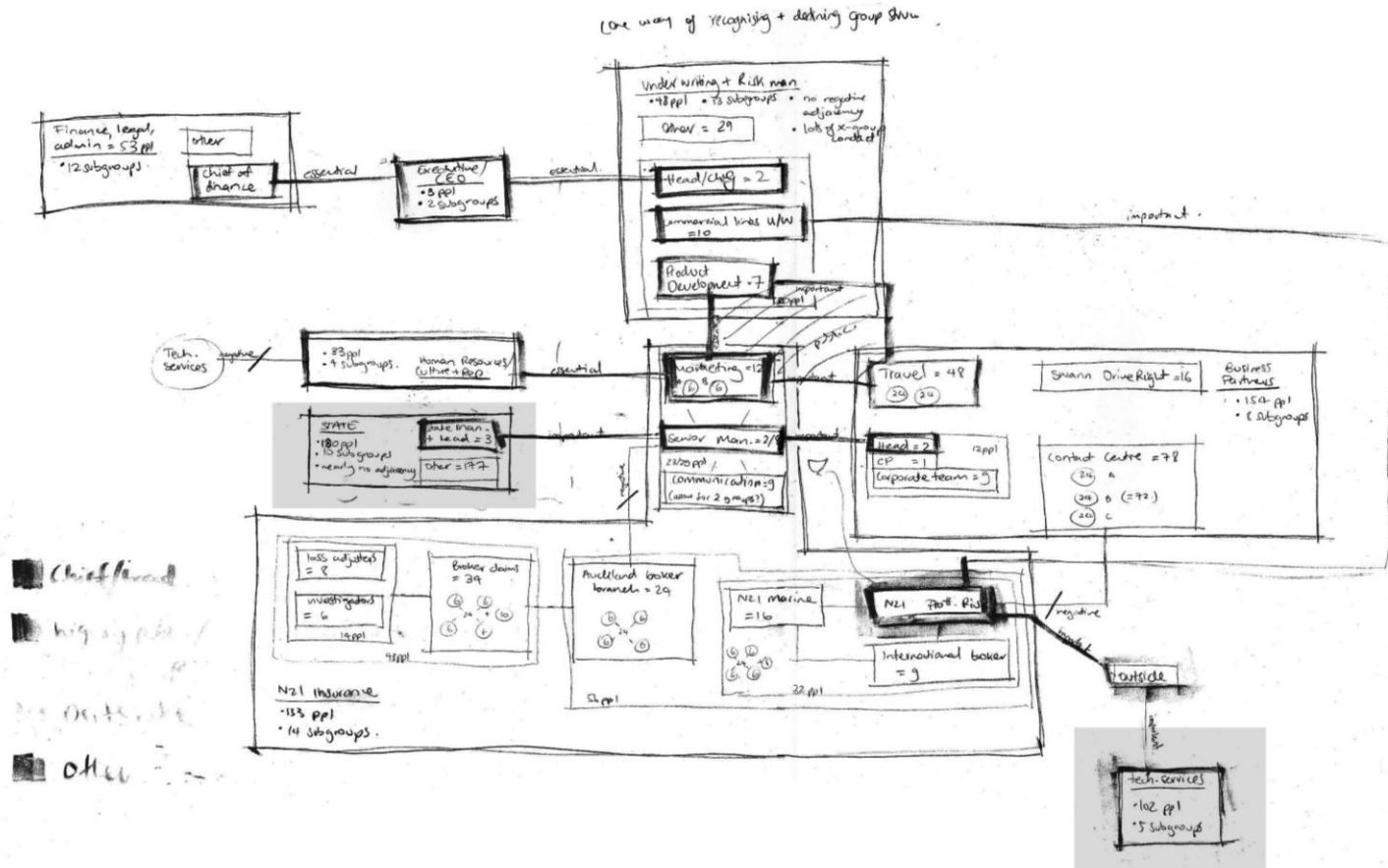
Territorial Disruption: This problem can occur in every large organization. Within subgroups, who are given a specific area to work in, no one will be bothered by team members moving about the space. However, when a person from outside this group enters the space, the usual team members will notice: this being territorial disruption. This can be avoided by a successful spatial arrangement where circulatory paths do not run through regular working spaces.

Model 7: Development

This model is the result of initial plans developed from the specific client brief and the current formal concept. It can be concluded at this point, that the current concept is not working. It is creating generic space and still lacks the quality that specificity may produce. Similar to existing methods of office design, this concept is still driven largely by floor plates.
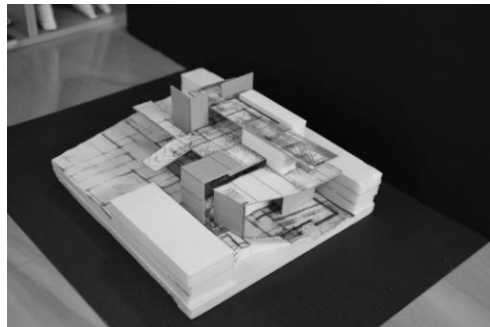
Model 8: Concept Summary of Vertical Division

The sketch illustrated below, sums up the conceptual solution for the architectural problem that has been trialled up to this point. The problem with this solution is that, while attempting to solve the issues of vertical disconnection, it is still generating flat, generic space and most of all: the floor plates are dominating. It is still dividing groups vertically, floor by floor, as most current office buildings do. This concept is solving the problem of floor plates with floor plates and this method is simply not strong enough. A whole new way of looking at the problem and solution was necessary.

Model 9: Horizontal Division
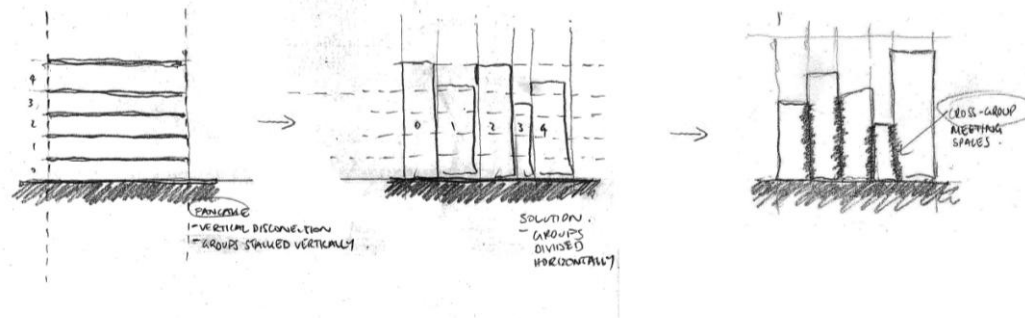
Rather than organising groups vertically, as it is already done in office design, an entire new approach is defined. This one takes the whole internal organisational structure and rotates it 90° so that now the basic group structure is divided horizontally across a given site. Now, the cross-group spaces are not found somewhere in between the stacked floor plates but are located at the point where two (or more) groups meet horizontally.

This method of division grounds the groups as well as grounding the cross-group spaces, giving them an individual presence. Consequently, as one moves through the site horizontally, one can experience each of the groups and cross-group spaces, giving a more defined sense of social structure where individual elements are dependent on each other. Without separation, there can be no integration.

This new conceptual approach in the spatial exploration of urban office space also produces the opportunity to start modelling the elements (groups) in mass: the floor plate is no longer dominating.

Model 10: Exploring the Cross-Group

The model and sketches illustrated below, explore how to deal with these new found, key cross-group points. There are multiple ways of dealing with the connection between two elements: two elements unfold and merge to make a third space, both elements could stay intact in order to illustrate a definite separation between them, two elements could create a gap or cavity in-between them that acts as a third space, one element could be dependent on another signifying one group being dependent on another, one element could sit inside another signifying being part of another group. The key idea that must be kept intact throughout this is the identity of each element (group).
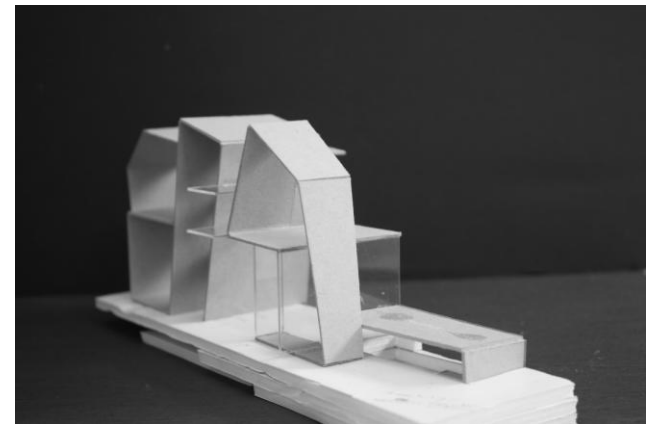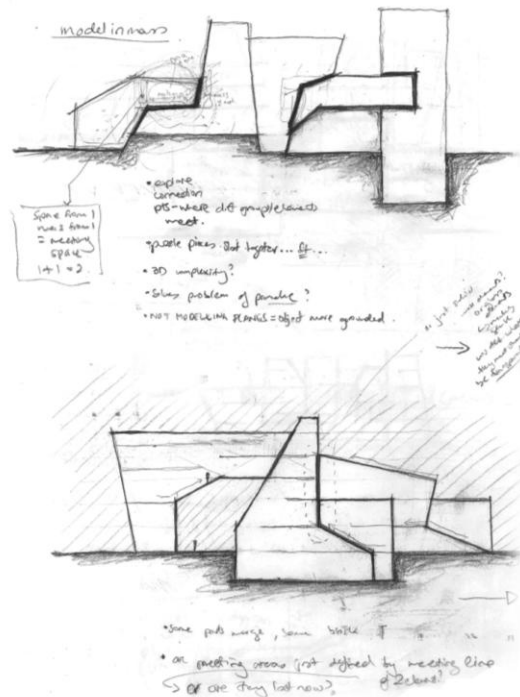
Model 11: Group Deconstructing

Using the analysis of the specific client brief and applying the horizontal group division concept, a mass model is developed showing basic relationships between the six major groups making up the one organisation. This first stage is the primary deconstructing of the specific client. The client brief has indicated relationships between groups, group size and through this process, major cross-group points can start to be identified.

Cross-section of Model 11
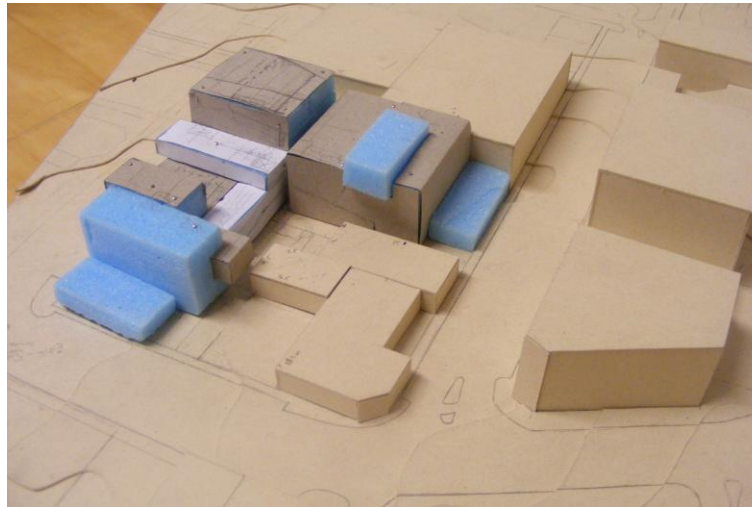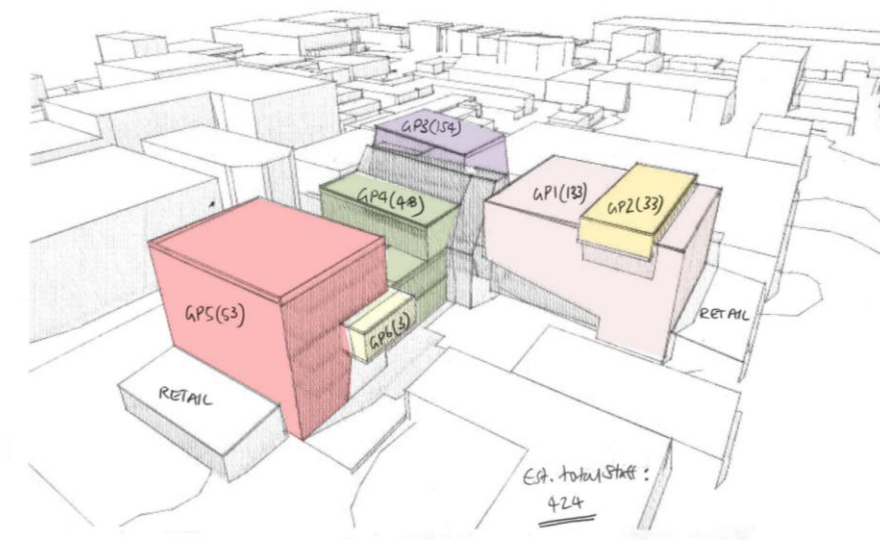
The six major groups roughly established in relation to one another

Model 12: Cross-Group Cavity

These developed sketches establish that the cross-group spaces will be dealt with as cavities: in-between spaces that are formed by the six groups. Three major cross-group spaces are established through this process. In order to maintain this intimate quality or sense of place, the individual groups must stay defined. A key aspect that will stimulate the awareness of this is by making the transitions in-between groups very obvious. By giving the cross-group cavity a presence of its own, it will become an obvious transition point when a person moves out of or into their own group.
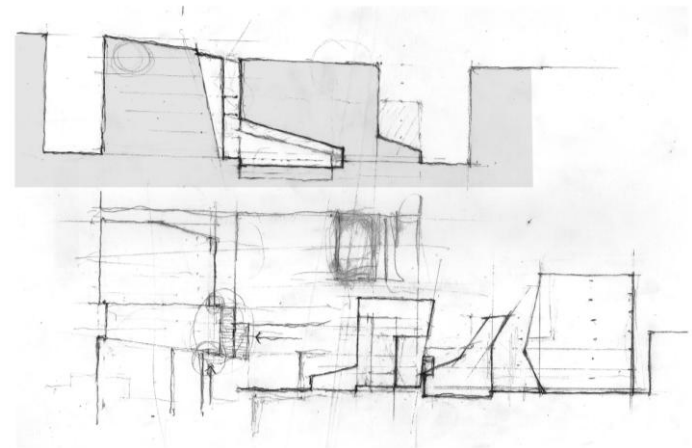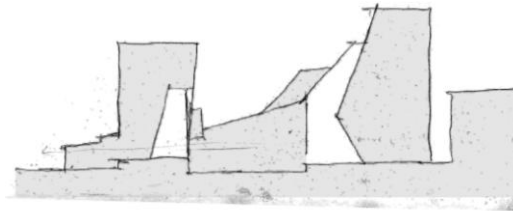
Model 13: Development

The three major cross-group spaces are linked by two circulatory paths coming off the central space.

GROUND FLOOR PLAN

SECTION A-A1   1:200

SECTION B-B1   1:200
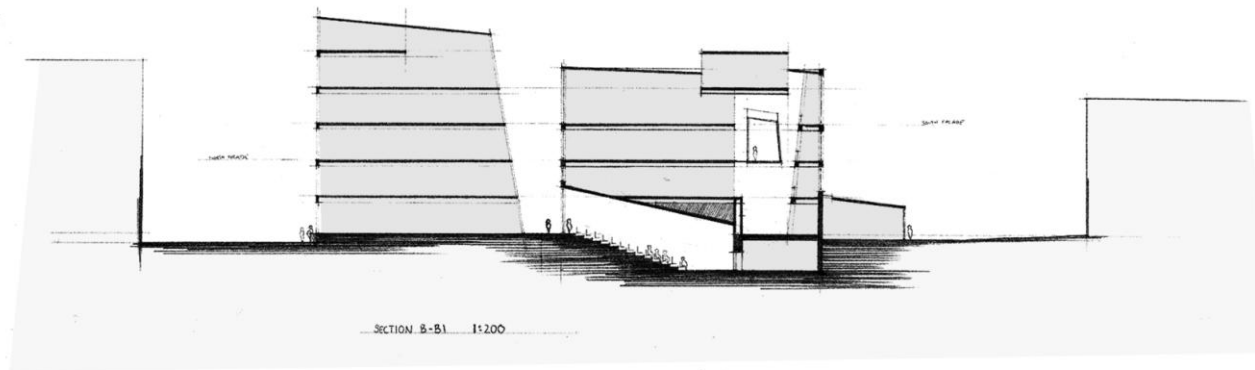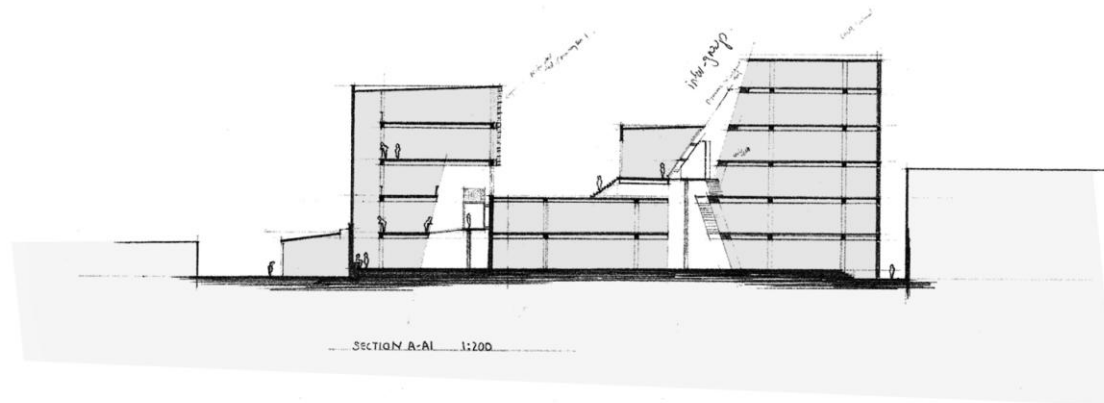
This developed design indicates that the six major groups have now been established, but clearly each group alone is still unresolved. The problem is that within each element there is no indication of social structure and at the moment the non-specific sub-groups, which make up one group, are still dividing vertically. Although the primary deconstructing of the major groups has reduced the size of the floor plates closer to the preferred 200m², the stacked floors still lack user specificity, are generating flat spaces and lack the intimacy that can come from an even more defined group structure. The same concept of deconstructing the major groups must be applied within each group in order to shatter the domination by the floor plates. It is necessary to go back to the brief and use the client one step further to result with a more specific 'Architectural Core'.

Model 14: Deconstructing of Inner Group

After analysing the client's organisational structure in more detail, the specific relationships between certain subgroups are identified and an internal structure within each of the six groups is established. This outlines the number of different relationships between subgroups which, in turn, determines which groups meet in which of the three major inter-group cavities. The cross-group is now referred to as inter-group because it is not only a space for cross-group fertilization but also for inner group meeting. The three major inter-group points have been located according to where the most interaction occurs between the largest number of different groups.
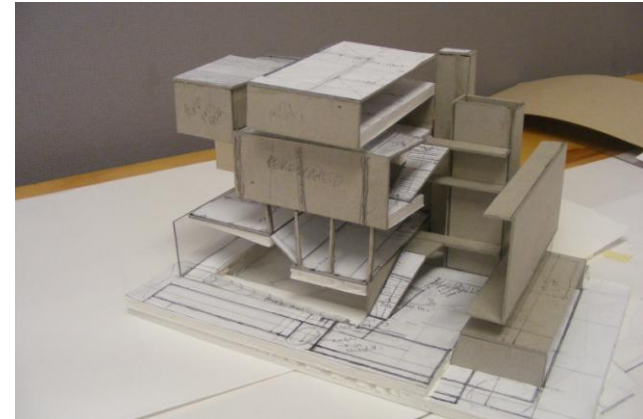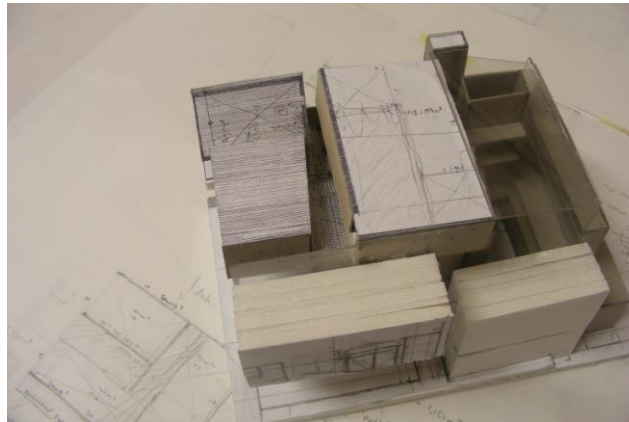
A section of the building is modelled exploring the deconstructing of inner groups.
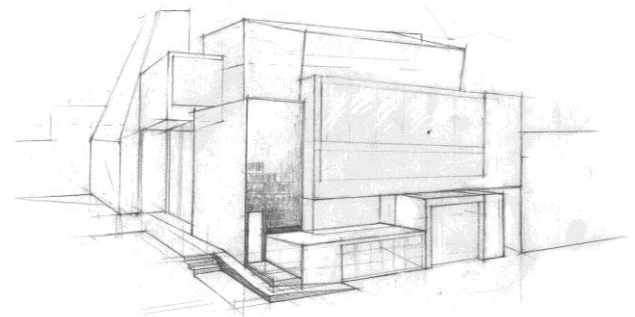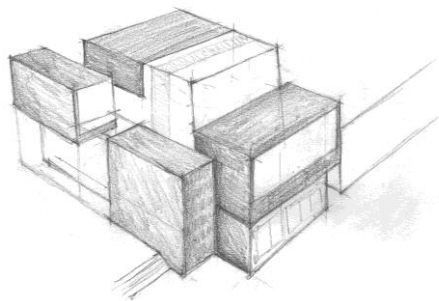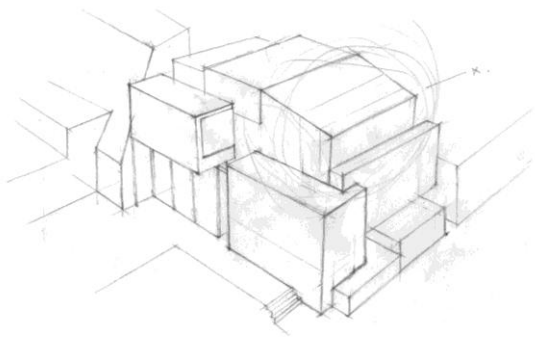
Sketches developing the concept of deconstructing

The inter-group cavities are developed and specific meeting spaces are placed according to cross-group paths so that no sub-group has to move further than one level in order to get to a meeting space. Meeting spaces come in the form of trays suspended in the inter-group cavity, away from the edges, so as to maintain its appreciation as a primary element and transition space.

A secondary inner-group cavity has materialized due to circulation paths. This 'Fracture' is much smaller than the inter-group cavity. It is a fracture between the subgroup elements of one major group. Like the main inter-group cavity it serves as a circulatory path but it does not have meeting spaces within it; simply allowing for chance encounters between inner groups. In addition, the fracture defines the transition out of one sub-group and into the next.

Inter-group

Fracture

Section A

Inter-group

Fracture
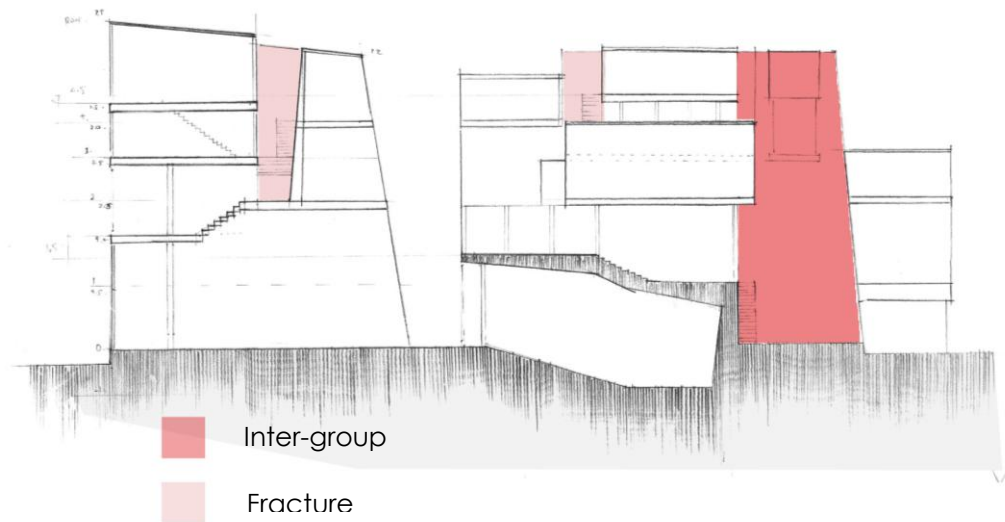
Section B

Perspective Section A: Part Section
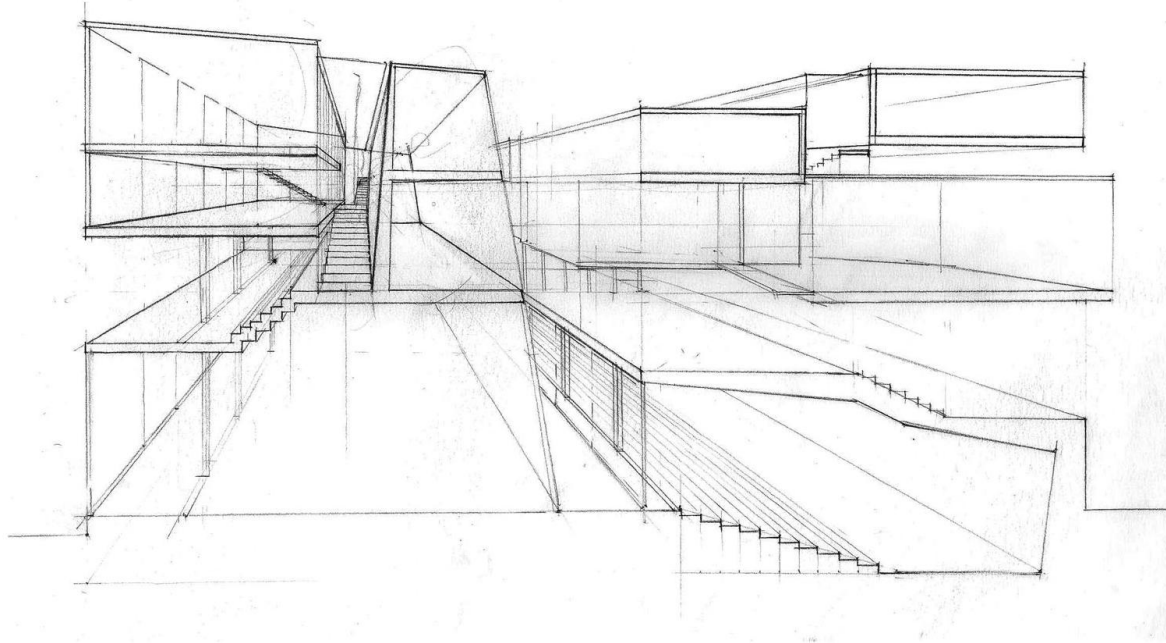
5.0 Critical Appraisal

The design process, a spatial exploration of workspace, is a key stage in this particular study. The reason being, that the research question means to establish a more successful method for dealing with the design of urban office space: one that creates a better quality workspace. The actual architectural solution is an example of what this study is exploring, demonstrating how this new design process works both in the theoretical and formal approach.

The chosen formal design process of deconstructing (division?) in two key stages, major groups and then inner groups, as well as the key conceptual move of dividing the organisation horizontally across the site instead of stacking it vertically were the two key conceptual moves that outline the new design method. The success of this method can be analysed in the actual design. Firstly, it can be interpreted that this method has successfully shattered the domination by the floor plates. Instead, it brings dominance to the elements that are the working groups, creating an 'Architectural Core' that starts suggesting the program and social structure rather than nothing: a non-space for non-event. Through these more defined, intimate spaces the design creates a sense of place and individuality for the six major groups and the inner groups that make up the organisation.

The design process is successful in the sense that the process does not stop at deconstructing major groups. The concept is pushed as far as deconstructing inner groups as well. This way the absolute theory is explored – not just partially. Although challenges arose through the major conceptual shift of dividing groups horizontally instead of vertically, and through the process of deconstructing, this concept is used throughout the whole process in order to obtain a complete example of 'Specific Genericism'.

We can agree that Program Instability is a part of business that can not be changed. Furthermore, it is absolutely essential in order for a business to grow or even survive. The program must constantly be evolving. But there is a clear suggestion through this design process that the design does not need to reflect this Program Instability by being nothing. Just because the program is unstable (which it in fact is, it has only been made stable as a design tool) does not mean the building has to be too. After all, there are underlying geometries that users can relate to and inhabit in the workspace: underlying social patterns that can be seen in any organisation if broken down. Therefore it seems reasonable to suggest a commitment to space by designing an 'Architectural Core' that offers a more quality workspace.

The site choice can also be evaluated in hindsight. At the beginning of the theoretical and design development, location was given much consideration in terms of size, physical dynamics and social dynamics. Seeing now how the project has developed, it would have been more challenging and more convincing to deal with a worst case scenario. Thus meaning a site that is not dynamic; socially or physically. This would make the architectural response, being an example of a theory, more convincing evidence in proving the success of this design method and that it can be applied to any site as in the example it has been successfully applied to the worst. Nevertheless site will always matter and be influential in terms of size: the first criterion stated in Site Analysis. Fact is that site size will determine the building size, therefore the maximum occupancy and size of organisation. Since this study explores a problem that exists mostly in large generic office building, it had to be a large building design that attempted to solve the problem and consequently a sufficiently large site was necessary.

5.2 Architectural Design Solution

At this point, the final design will be explained, interpreted and evaluated. The design will predominantly be referred to and discussed as the 'Architectural Core' as this is what the study aimed at examining.

Vertical disconnection is an issue presented very early in the design process. Emphasis has been directed towards the influence that vertical connection can have on communication between groups just as much as the horizontal connection; this having been given so much emphasis through i.e. "Open-Plan and concepts of transparency. This idea of vertical connection runs right through the 'Architectural Core'. Firstly, in the way levels have been split to create more complex vertical relationships: visually and physically. Secondly, the stairs have become a dominant conceptual element indicating vertical connection through circulation; creating paths of chance encounter and linking the separate groups. In addition, stairs support physical movement which aids mental stimulation.

Circulation, due to the complexity of the design, also becomes one of the biggest critiques in the developed design. There are certain difficulties arising through large amounts of vertical circulation. It is more likely in this type of office, that staff need to move one floor up or down to reach a formal or informal meeting space, lavatory etc. This means they are less likely to do the trip: C. Alexander. Functionally, there are more issues to deal with in terms of disability and from an economic point of view, more difficult and expensive than the generic office in terms of fire stairs, elevators and general building structure. It can now be questioned, to what extent can form (space?) be explored without reducing social interaction and meeting functional requirements?

Inter-group spaces (cavities?) and inner group Fractures can be identified as key elements in the sections and in the plans. They are one of the two key design elements that express the importance of

social interaction, communication and cross-fertilization. The second being the sense of individuality developed for the different levels of groups within the larger organisation by creating different levels of intimacy in the 'Architectural Core'. The inter-group spaces also become key points of reference within the building, tying certain groups together through circulation paths and also becoming clear social cores in terms of formal meeting (in the meeting trays) as well as also informal meetings. They are also the major circulation points where paths cross both vertically via stair and elevator and horizontally, becoming primary areas where staff can expect chance encounters and spontaneous interaction...this leading to more chances of work talk and problem solving. The inner group Fractures that occur at points within one major group form a hierarchy of circulation, by speaking a similar language as the inter-group spaces, indicating levels of privacy and separation between groups.

It is clear that at the point where the design process ends in this document, the interior fit out has not been developed in detail. The brief has been broken down into the smaller groups and the 'Architectural Core' provides adequate floor area for each person and group. Though, the actual arrangement of furniture, fittings and equipment has not been planned as this is not of primary concern to this study. Although, one could say that designing the fit out would make the design more convincing, by acknowledging and incorporating what is usually a primary element of office design.

The plans and sections illustrated below show the most current point in design. The plans are showing the 'Architectural Core', not fit out. One can start to recognise the separate spaces that make up the whole, suggesting smaller groups within the larger structure of the organisation.

5.3 Summary of Findings

It can be said that this design process has achieved a building very different to the generic office space even though one of the key drivers was the same: communication. One could summarise that the spatial exploration has been successful, as the quality of workspace is much more stimulating offering more intimate spaces in the 'Architectural Core'. There is a stronger sense of place for different levels of working groups, creating an overall sense of social structure. The findings suggest that the architectural solution is more stimulating, socially, visually and physically, than a generic office building.

The issue of what types of new social structure, one large organisation, multiple smaller organisations or restructuring of the current organisation, the building can absorb remains unclear as this is untested ground. One can only assume, based on the research provided in the previous chapters that the 'Architectural Core' provides a geometry that other users can indeed inhabit.
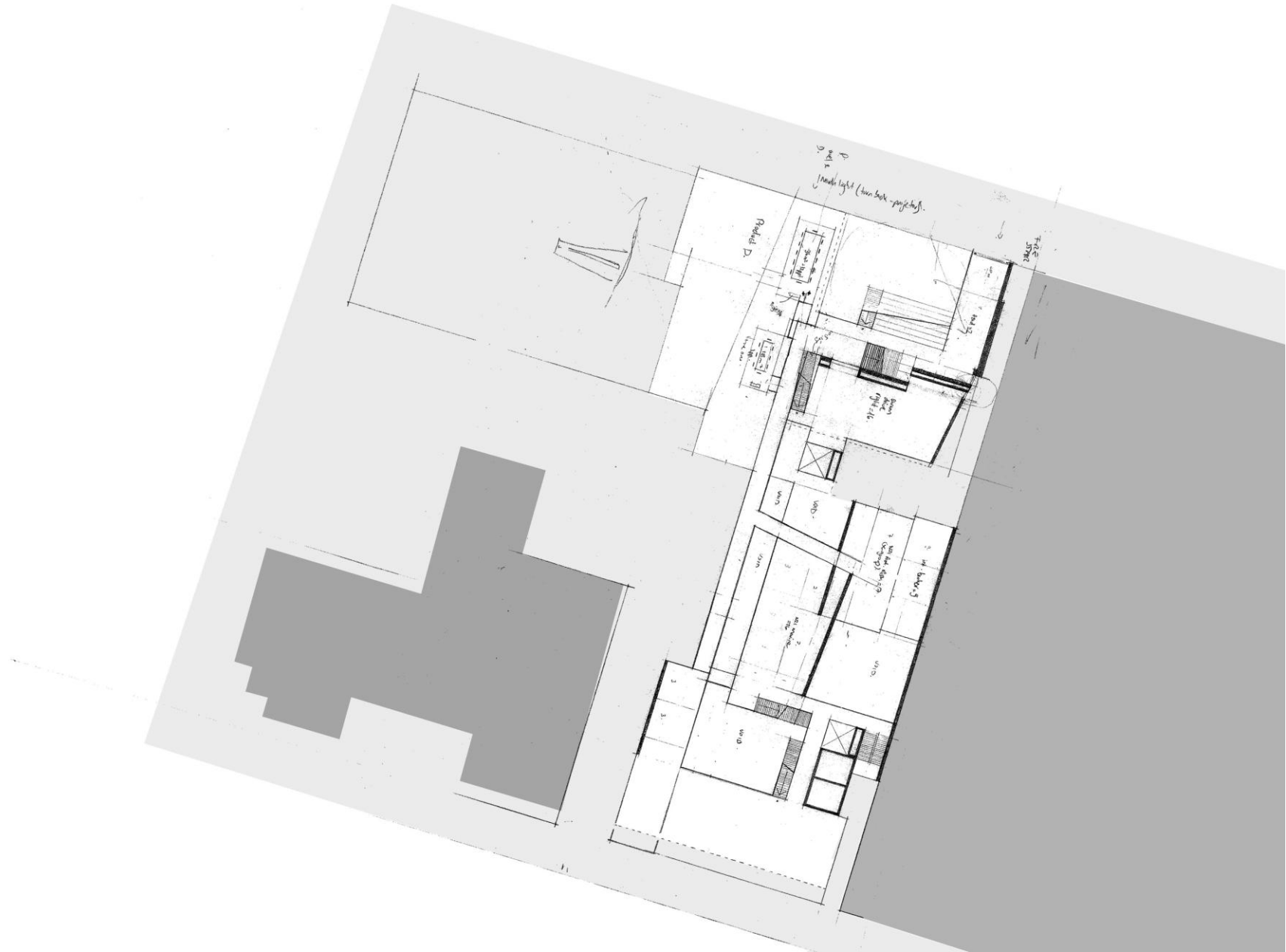
Development Plans
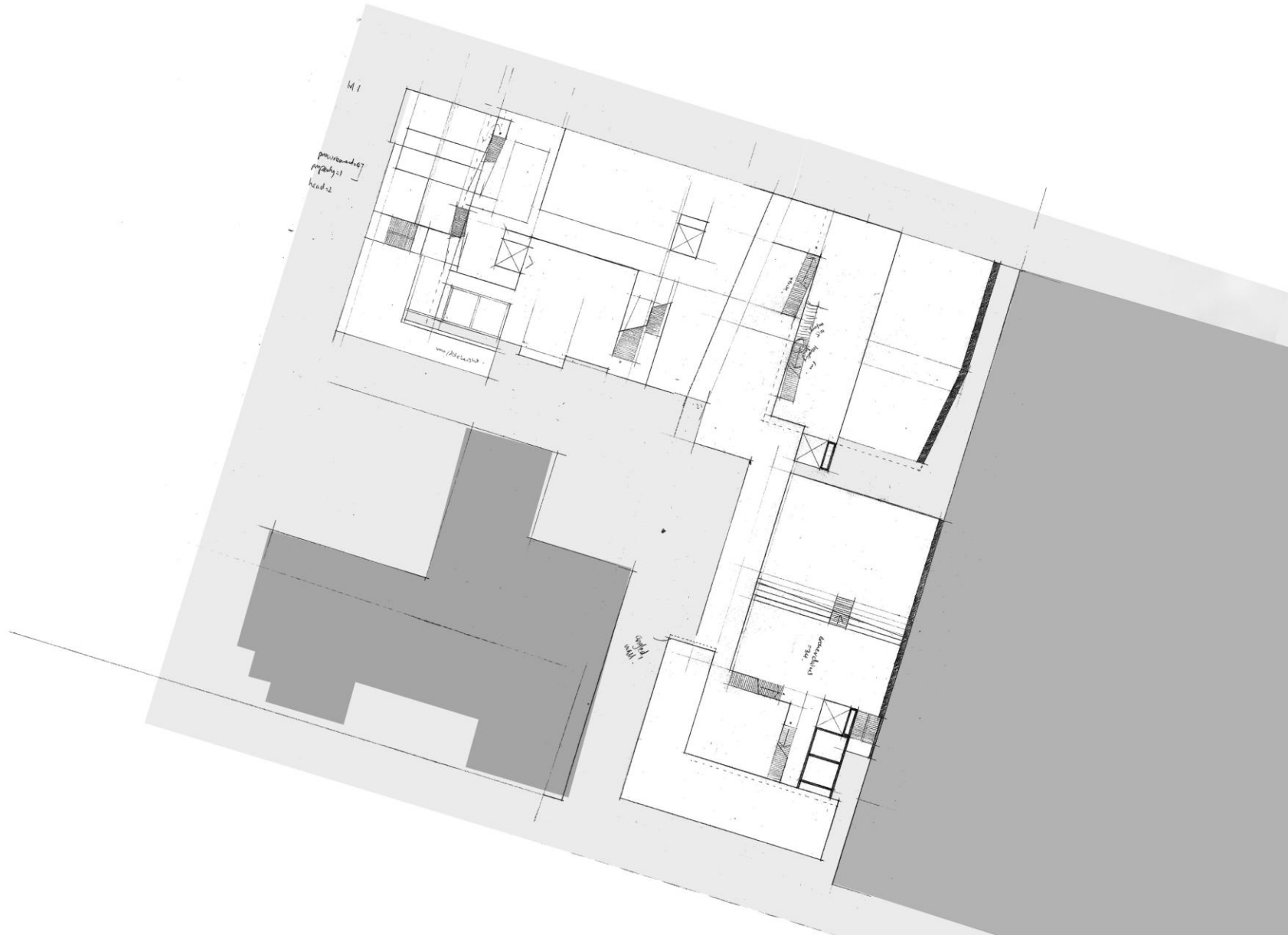
Level 0

Level 1

Level 1.5
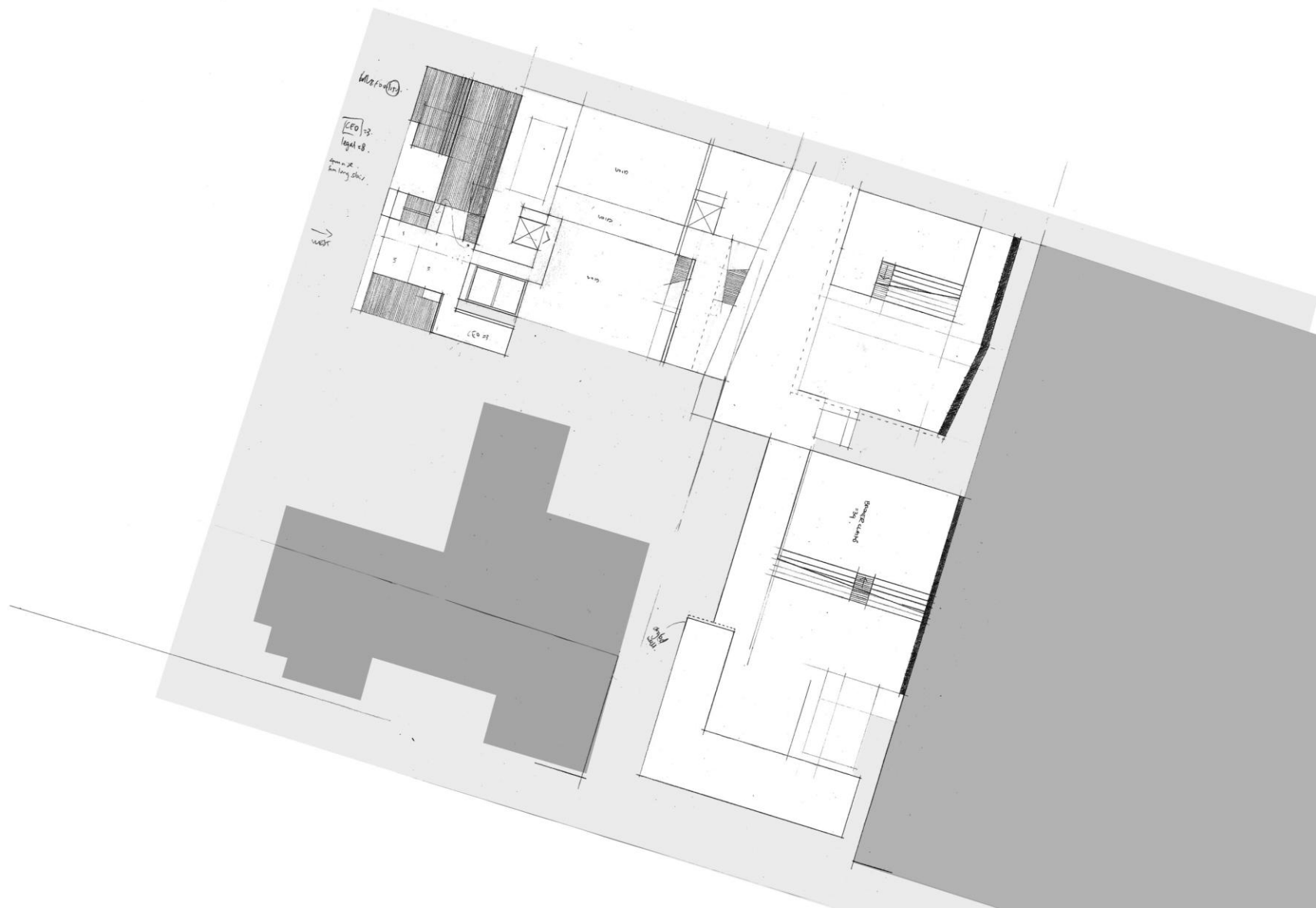
Level 2

Level 3

Level 4

Level 4.5

6.0 Conclusion

This research topic is addressing a very real issue in New Zealand and also other parts of the world. This building typology produces problems that are affecting our currently evolving society. The primary outcome of this study has been in form of this explanatory document and the architectural design response to the research question.

One can conclude, at the end of this study that generic space defines a space that the majority of a group of people can use. This 'Genericism' describes flexibility. Specific space, on the other hand, describes a space which can only be used by a select few people. But some specifically designed spaces are re-used by many different users making them flexible also. This begs the question: are these spaces indeed specific or rather generic? This question can be refined into the underlying question mentioned in the aim: what is "generic office space"? The conclusion drawn here is in form of a new definition: 'Specific Genericism'. This re-interpretation of the terms generic and specific questions what they really mean in relation to architecture and what they offer. 'Specific Genericism' refers to a building that has an 'Architectural Core' originally designed for a specific user (program) but has successfully absorbed organisational changes within the specific user or absorbed a completely new user.

The final architectural design response to the research question, "Does architecture, in response to a specific urban office use, produce a higher quality work space than it does when responding to a generic urban office use?" is hopefully an example of this 'Specific Genericism'. It offers a quality 'Architectural Core' with a geometry that other organisational structures or a completely new user can take advantage of. In order to truly test whether the design response is 'Specific Genericism', one would have to adapt several organisational changes into the 'Architectural Core' i.e. reshuffling the existing organisation structure or inserting an entirely new organisation. We can only assume this is possible through the supporting material established through this study.

GROUND FLOOR PLAN 1:200 ⊕

1   INTER-GROUP SPACE ONE
2   INTER-GROUP SPACE TWO
3   INTER-GROUP SPACE THREE
4   CENTRAL COURTYARD
5   CAFE
6   RECEPTION
7   KITCHEN
8   RETAIL
9   W/C
10 FIRESTAIR
11 AUDITORIUM
12 STORAGE ROOM
13 MAILROOM
14 ADMINISTRATION (6)
15 ACTUARIAL AND REPORTING (12/48 UNDERWRITING AND RISK MANAGEMENT)
16 OTHER (8/48 UNDERWRITING AND RISK MANAGEMENT)
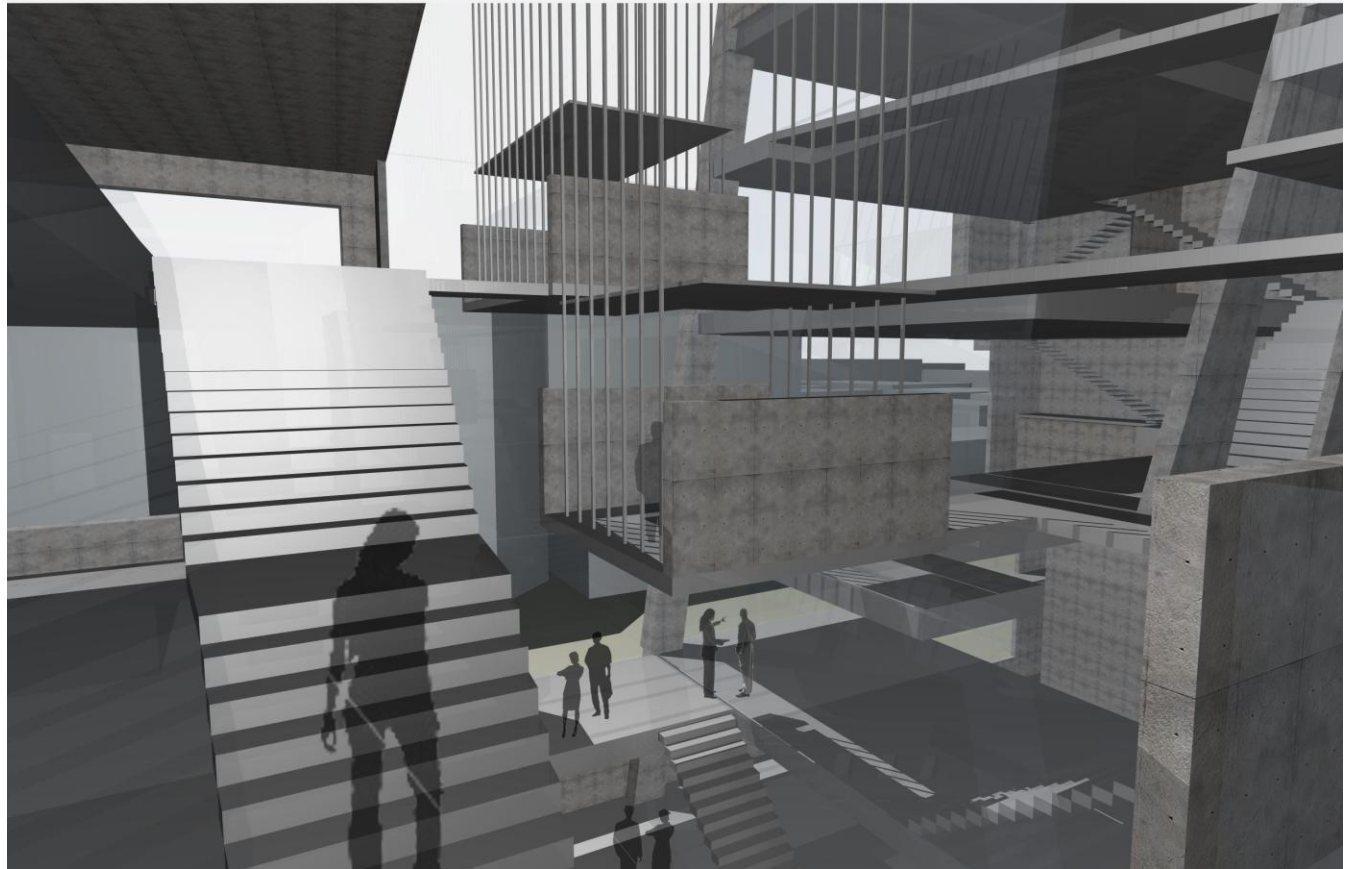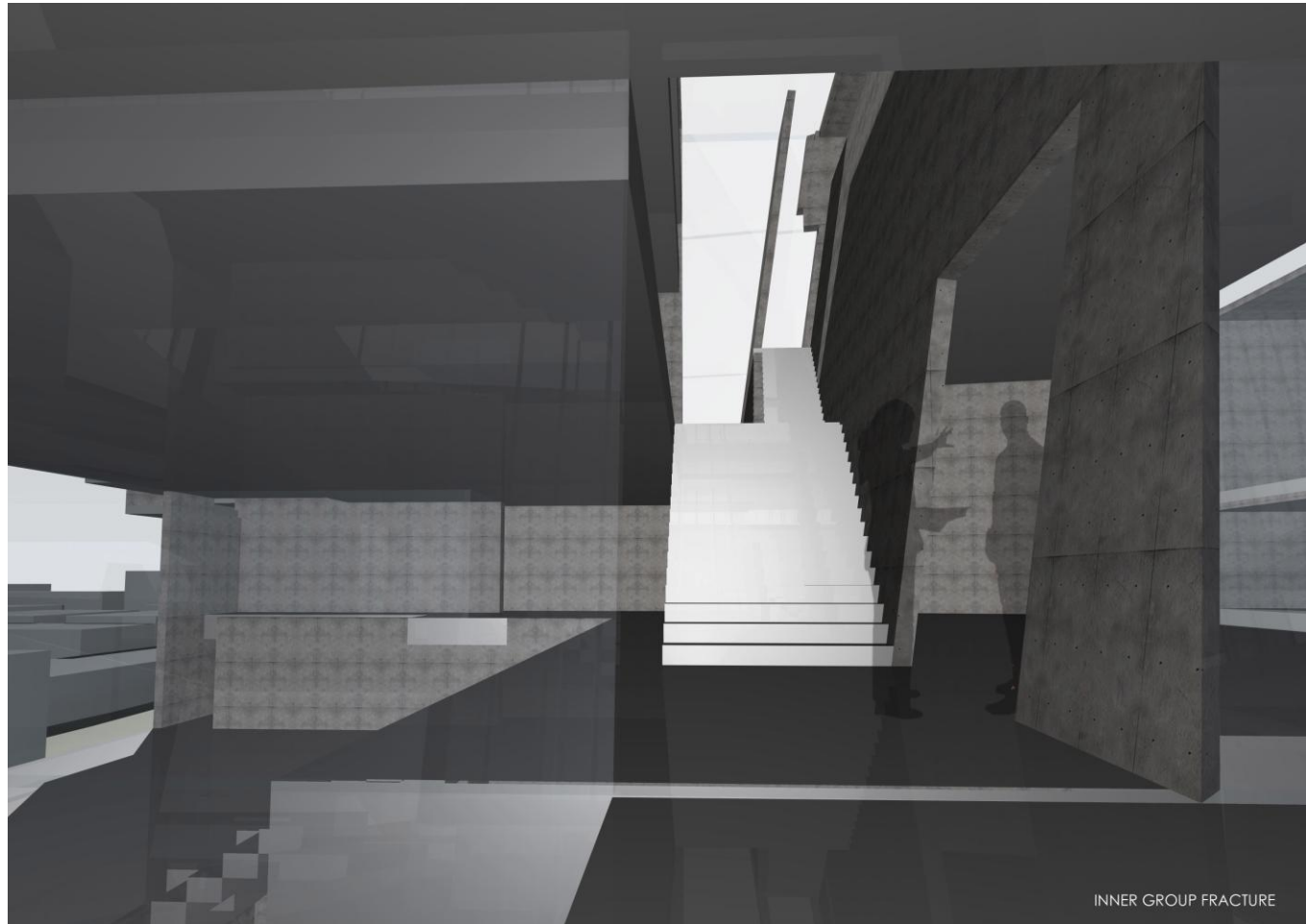17 CORPORATE PARTNERS CONTACT CENTRE (78/154 BUSINESS PARTNERS)

AUDITORIUM

SECTION a - a
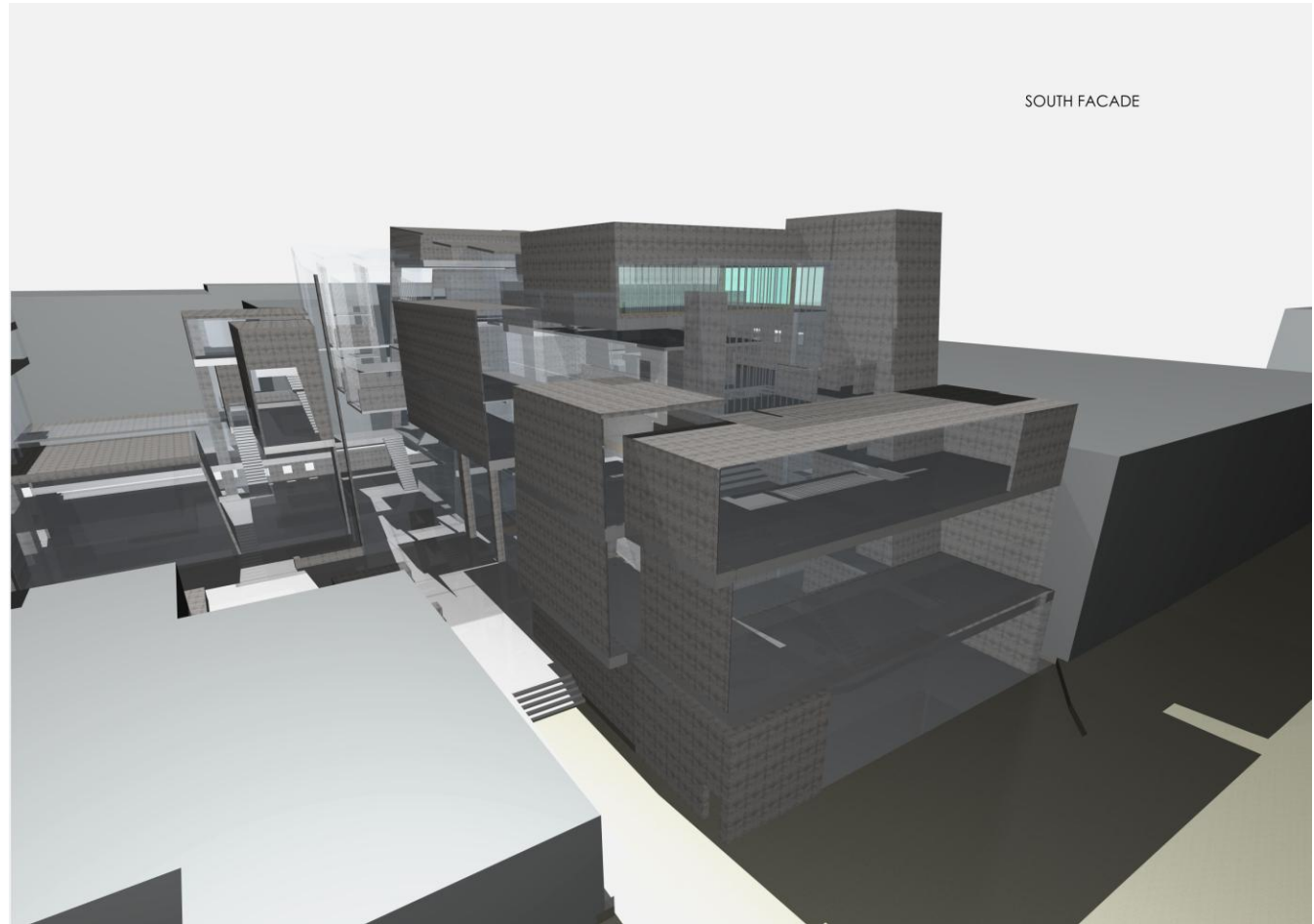
SECTION b - b

INNER GROUP FRACTURE

WEST FACADE

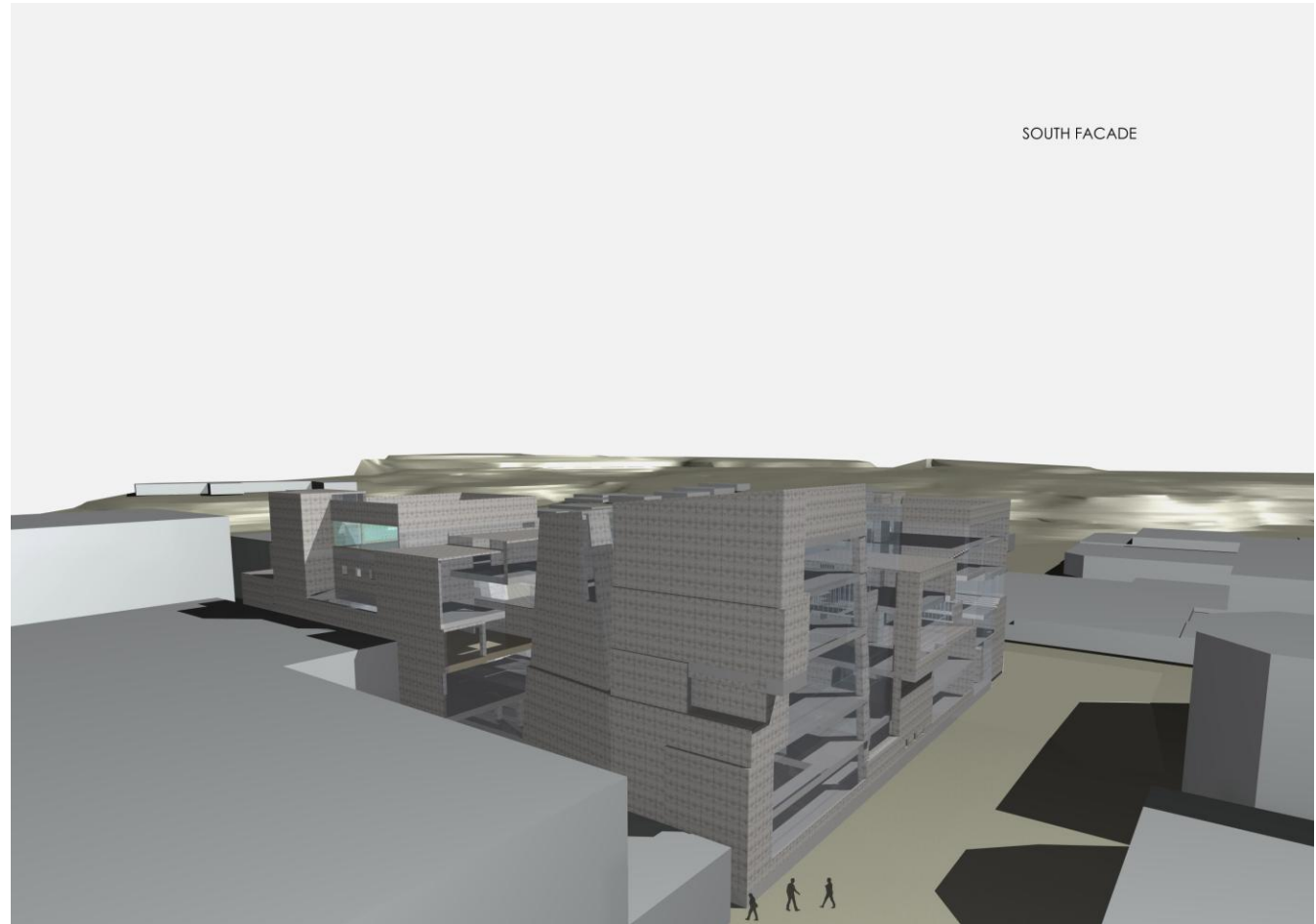SOUTH FACADE

111
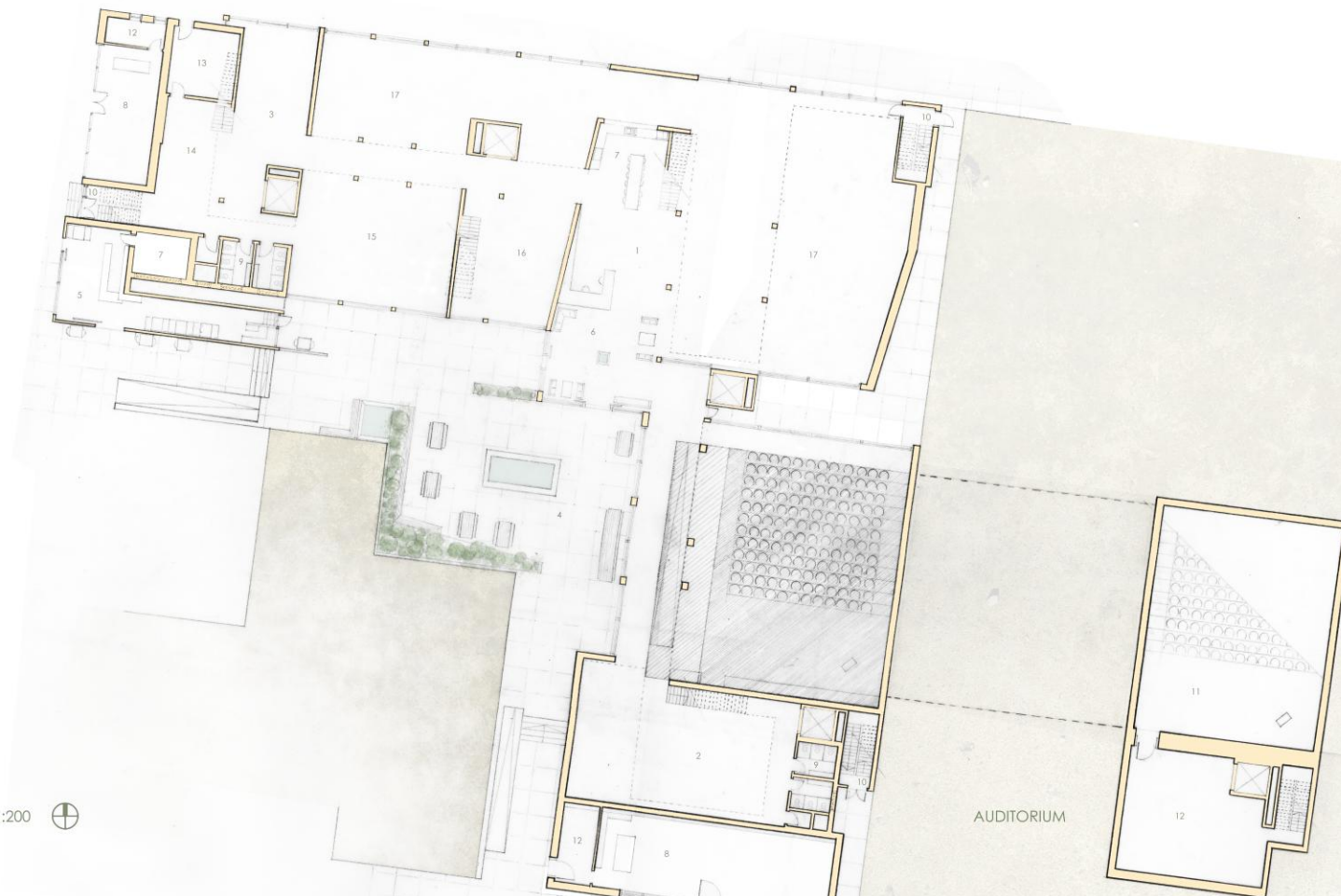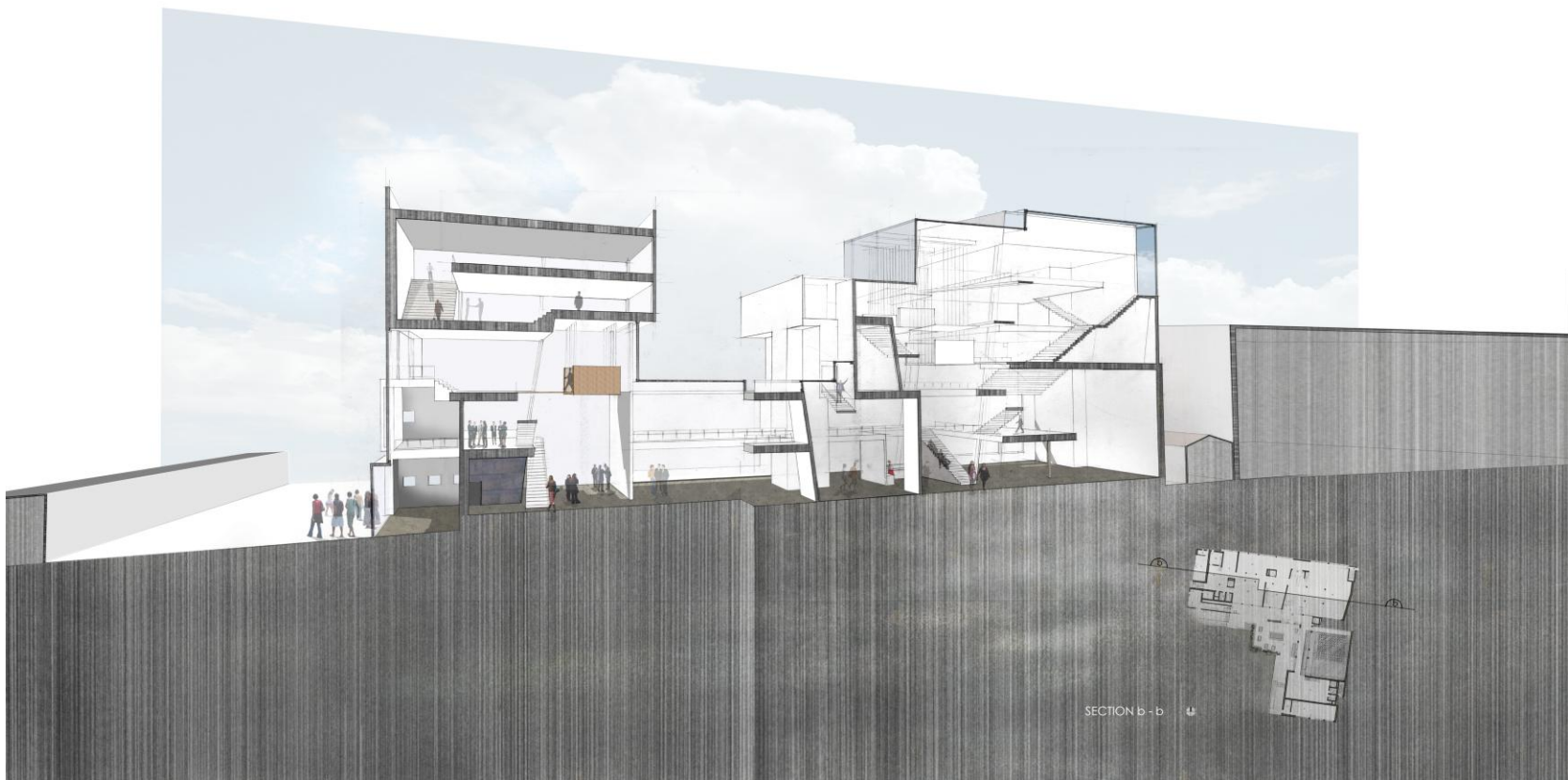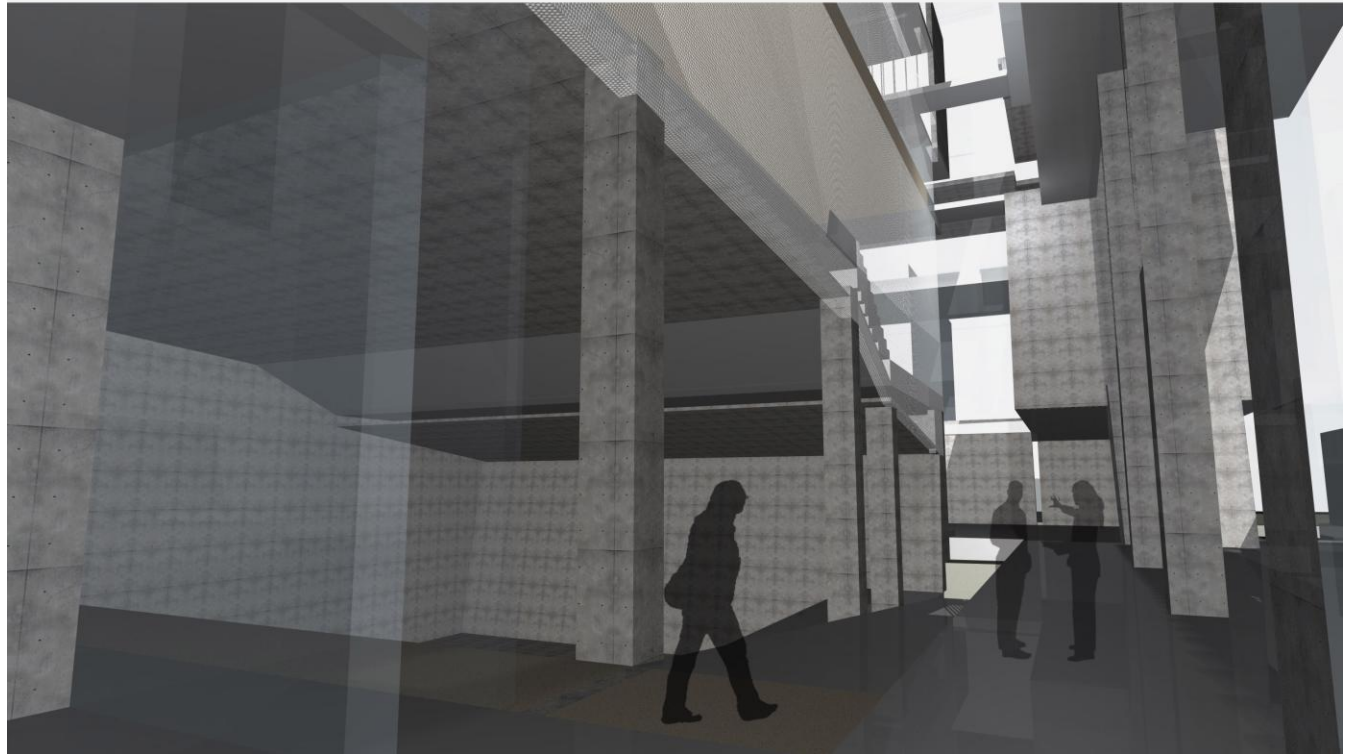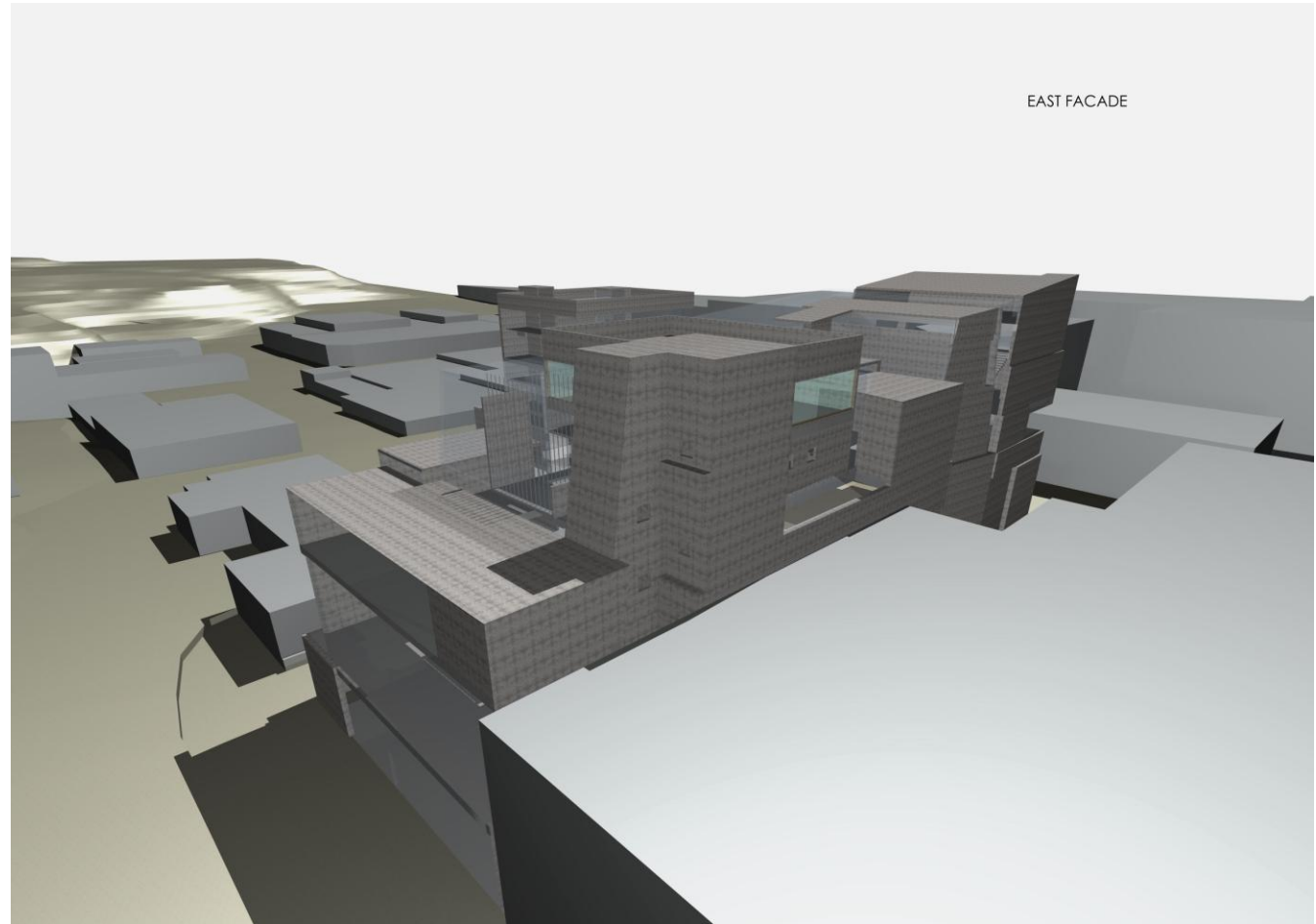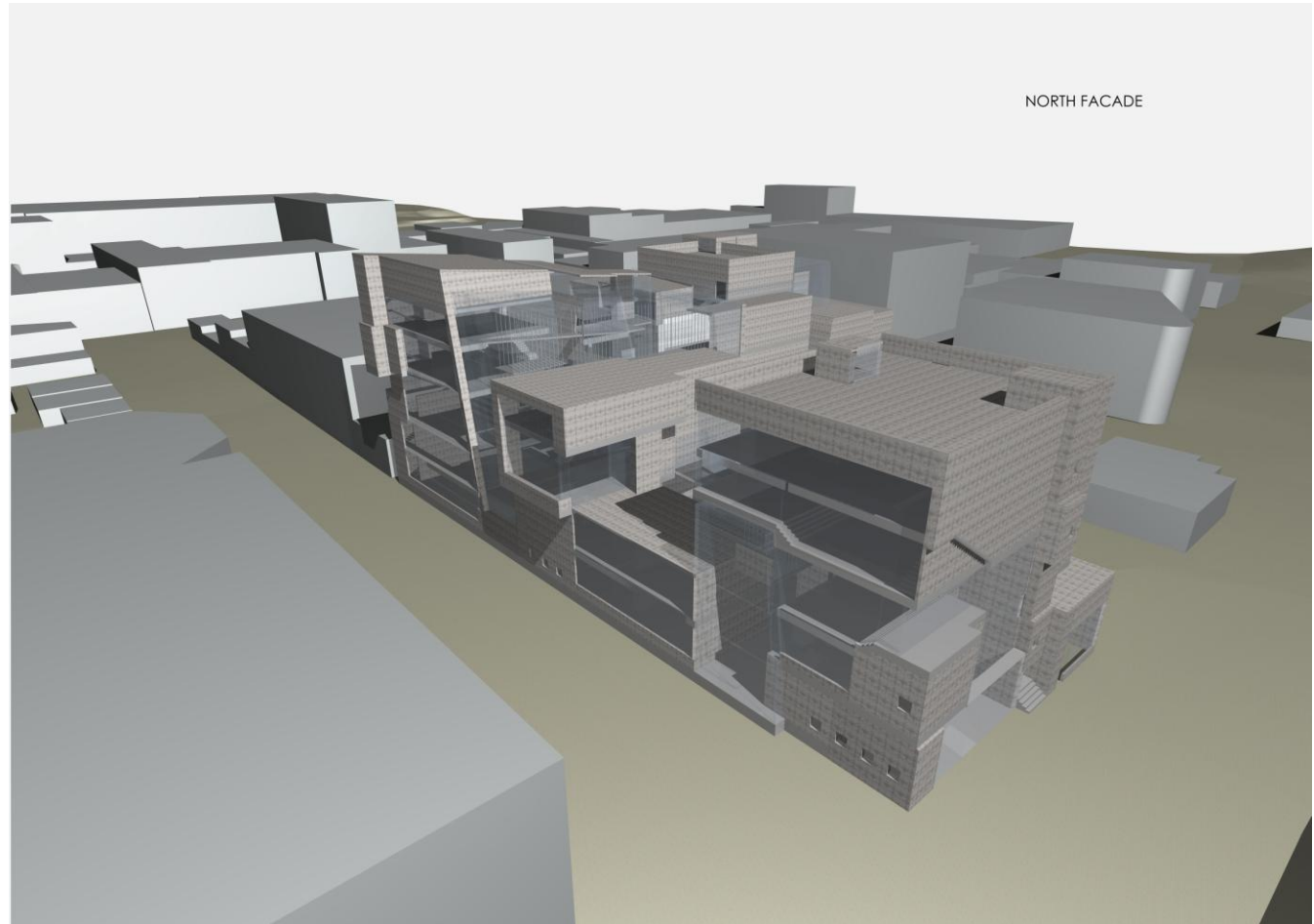
EAST FACADE

NORTH FACADE

Bibliography

Alberta Norweg A.I.E, "*Copenhagen Culture House + Library by COBE and Transform*",
http://1.bp.blogspot.com/_6M5RbpxhRR4/SdeOVs-pTfI/AAAAAAAABE4/aenT_QJIJns/s1600-h/07.jpg (accessed July 2, 2009)

Alberta Norweg A.I.E, "*Copenhagen Culture House + Library by COBE and Transform*",
http://2.bp.blogspot.com/_6M5RbpxhRR4/SdeOft-GANI/AAAAAAAABFg/DIn-kQbi9jE/s1600-h/02.jpg (accessed July 2, 2009)

Alexander, Christopher. *A Pattern Language: Towns, Buildings and Construction.* New York: Oxford University Press, 1977

Bartley, Alison. "Cutting to the chase". *architecturenz*, No. 5, September/October (2007): 42-59

Danda, "*University Library of Utrecht by Wiel Arets*",
http://www.danda.be/reviews/university_library_of_utrecht_by_wiel_arets/ (accessed July 2, 2009)

Duffy, Francis. *The Changing Workplace*. London: Phaidon Press Ltd, 1992

Flickr, "Berlin Staatsbibliothek, by Hans Scharoun",
http://www.flickr.com/photos/14580232@N04/2667069257/ (accessed June 26, 2009)

Flickr, "*Wiel Arets Library, Utrecht 09*", http://www.flickr.com/photos/morphinaorg/427284666/ (accessed July 2, 2009)

Grose, James(ed.). *From the inside/out.* Auckland: ASB Bank, 2008

IAG Accommodation Brief: October 2007

Jasmax, "*NZI Centre*", http://www.jasmax.com/#/Portfolio/NZI_Centre (accessed May 25, 2009)

Koolhaas, Rem. *delirious new york.* New York: The Monacelli Press, 1994

Koolhaas, Rem and Mau, Bruce. *S,M,L,XL: O.M.A.* New York: The Monacelli Press, 1995

Le Pla, Ruth. August 2005. *Flooring the Critics: Bumper growth in space race.* NZ Management Magazine. http://www.highbeam.com/doc/1P2-12608520.html (accessed June 6, 2009)

Littlefield, David. *Metric handbook: planning and design data*. 3rd ed. London: Architectural, 2008

Myerson, Jeremy and Ross, Philip. *Space to Work: New Office Design.* London: Laurence King Publishing, 2006

Pearsall, Judy(ed.). *The Concise Oxford Dictionary: Tenth Edition, Revised.* New York: Oxford University Press, 2001

Sennett, Richard. *The Craftsman.* Great Britain: Allen Lane, 2008

Stein, Jess(ed.). *The Random House Dictionary of the English Language, The Unabridged Edition.* New York: Random House Inc, 1973

Stratford, Stephen. *Jasmax.* Auckland: New Zealand Architectural Publications Trust, 2007

Sussman, Gerald. "Urban Congregations of Capital and Communications: Redesigning Social and Spatial Boundaries". *Social Text,* No.60 Autumn (1999): 35-51

Sustainable Business Network, "*NZI Building*", http://sustainable.org.nz/uploads/images/nzi_building_web.jpg (accessed May 27, 2009)

Walker, Brian. "Another kind of Science; Christopher Alexander on Democratic Theory and the Built Environment". *Canadian Journal of Political Science*, Vol.36, December (2003): 1053-1072

Wikimedia Commons,"*Vodafone Building Near Victoria Park*", http://commons.wikimedia.org/wiki/File:Vodafone_Building_Near_Victoria_Park.jpg (accessed May 27, 2009)