A “Pulpitumic” School

The Place to Project Architecture into the Consciousness of the Public.

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Abstract

Architectural pedagogy is distinctive from the traditional classroom learning due to its studio-based system. The majority of student time is spent in studios on tasks of developing and refining their designs. It is a direct reflection of passion and dedication towards architectural learning. But this passion is rarely exposed to the public, and the public seldom realized the hard work needed to create the built environment they live in. A place is needed to project the importance of architecture into the consciousness of the public audience.

At the present time, the building for the Unitec School of Architecture is causing seclusion from public and constraints on its spatial organisation. It does not advertise its education to the public and the architecture was never designed for its current programme. This has presented an opportunity to design a new building as an exploration of a typological architectural expression for architectural education. It could also become a place to publicise architecture, so it becomes a ‘pulpitumic’ school. The passion and dedication of students will no longer be hidden; their skill and artistry will be showcased to a wider audience.

This project is an architectural dialogue between the public realm and the school realm. The merge of both realms is essential to give ‘pulpitumic’ qualities to this new school of architecture.
Table of Contents

1. Introduction ................................................................. 1
   1.1 Aim/Objective .................................................... 3
   1.2 Background Information ....................................... 3
   1.3 Research Question .............................................. 3

2. The Brief and Precedent Studies ........................................... 5
   2.1 Brief .............................................................. 7
   2.2 Precedent Study .................................................. 7
   2.2.1 The four types of Architecture School buildings ...... 7
   2.4 Overseas examples .............................................. 8
   2.3 Local examples .................................................. 13

3. Defining the Principles of Architectural Education ....................... 21
   3.1 Brief history of development of Architectural Education .. 23
   3.2 The Studio pedagogy and its debates. ....................... 24
   3.3 Reasons to go public .......................................... 26
   3.4 Core components of Architectural Education ................. 26
   3.4.1 Explorations of Spatial Organisations ..................... 27
   3.4.1.1 The Courtyard ........................................ 27
   3.4.1.2 The Thoroughfare ...................................... 28
   3.4.1.3 The Anchor Points ..................................... 29
   3.4.1.4 Evaluation of Explorations ............................ 30

4. The Site. ........................................................................ 31
   4.1 Site Selection .................................................... 33
   4.2 Historical Context ................................................. 38
   4.2 Circulation ........................................................ 39
   4.3 Street Front Activity .............................................. 40
   4.4 Topography and Orientation ..................................... 41
5. Design Process

5.1 Functional Requirements
5.2 Design Explorations
5.2.1 Exploration 1 – To understand the site
5.2.2 Exploration 2 – Increasing the scale
5.2.3 Exploration 3 – Breaking down the grain
5.2.4 Exploration 4 – Hugging the neighbours
5.2.5 Exploration 5 – Connections
5.2.6 Exploration 6 – Reinforcing the Corner
5.2.6.1 Exploration 6.1 – The studio space
5.2.7 Exploration 7 – Developed Design
5.2.7.1 Exploration 7.1 – Interlock of two realms.
5.2.8 Exploration 8 - Planning and spatial experience.

6. Critical Appraisal

7. Bibliography

8. List of Figures

9. Appendix A

10. Appendix B
1. Introduction

Fig. 1.1: The orator on the pulpitum.
**1.1 Aim/Objective**

Architecture is a discipline that directly relates to the experience of our built environment. It ranges in scale from humble shelters to the grandiose skyscrapers. The majority of the public are oblivious of the ingenuity and passion involved in making these spaces, quite often they take them for granted. It is due to this low awareness that a ‘place’ is needed to make the public aware of what architecture entails.

At the Unitec School of Architecture, the current facilities are struggling with the curriculum in terms of spatial constraints, disconnection between studios and lack of an adequate central space to connect the school together. It is with this concern that a new building is needed. This project seeks to merge the objectives of advertising architecture and developing a typological expression of an architecture school, and the goal is to create a ‘pulpitumic’ school. Pulpitum is a Latin word for podium, a construct which the orator stands on and make his speech heard in the crowd. ‘pulpitumic’ is the quality of the pulpitum, which is its ability to make something significant.

This ‘pulpitumic’ school would engage with the public, increasing their awareness of how much architecture affects their lives, and also the artistry and passion that students develop during their school years. This engagement is aimed at shattering the image of architecture schools being “too hypothetical, theoretical, and largely unconcerned with the realities of practice”.

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**1.2 Background Information**

The Unitec New Zealand School of Architecture was established in 1994 and is a relatively new school in New Zealand. It was the pioneer in terms of collaboration with architectural professional practice in its teaching. Since its establishment, the school has been housed in the Carrington Asylum building in Mt Albert, Auckland, and has had to make do with the given spaces in this historically significant building. The restriction imposed by the architecture has severe implications on its usage. Long circulatory routes within the building, poor connections between studios are just a few of its shortcomings. The suburban setting of the campus has physically excluded itself from outside attention, which “may perpetuate the public perception of architects as introverted and standoffish.”

**1.3 Research Question**

To achieve the objectives of advertising architecture through a new school of architecture building, 2 questions have been proposed:

1. Utilise architectural strategies to integrate the school with the public realm.

2. To develop a typological architectural expression for architectural education.

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2 Tony van Raat, interview with author, March 17, 2011.

2. The Brief and Precedent Studies
2.1 Brief

The Unitec School of Architecture in its suburban campus setting has limited the physical interaction between school and the public. This would seem to produce a lesser appreciation and possible misunderstanding by the public. It suggests that the historic school building is not contributing enough to a social transparency that enhances public awareness of architecture. The architectural community needs to reverse its importance to the public. To design a new school, it presents the opportunity to develop and better define its role as an architectural educator.

The basic requirements are to house the various learning environments of the school; this includes:

- Design studios
- Critique spaces
- Workshops
- Library
- Lecture theatres
- Administration and staff offices
- Public spaces
- Parking spaces

The new design would explore different possibilities of utilising these components in order to achieve the objectives of an architectural expression and merging with the public realm.

2.2 Precedent Study

2.2.1 The four types of Architecture School buildings

A recent study has been conducted by Jack. I. Nasar, Wolfgang F.E. Preiser and Thomas Fisher on the schools of architecture as a type, and they also co-authored a book on this topic called Designing for Designers. In this book, Fisher has categorised school of architecture buildings into four types, they are the courtyard type, compound type, workshop type and the atelier type.4

The courtyard type describes a condition where the building mass occupies the perimeter, creating a central space that could potentially connect the school together. The compound type is a cluster organisation with spaces in-between them. The sense of containment for the compound type is comparatively weaker.

The workshop type suggested a craft-like curriculum with their workspaces dedicated to workshop activities. Its architectural implications required larger spaces to allow for crafting exercises and the Bauhaus school would be a prominent example of this type. The visual language of the Bauhaus school partially express the curriculum but it was also heavily influenced by the Modernist approach.

The atelier type describes an informal setting similar to an artist's studio where a master would guide his pupils. The Taliesin west, being both a house and an atelier was used as an example by the authors. The first two types reflected the physical relationship to their contexts and the latter two reflected the pedagogical programe housed within.

4 Nasar, Preiser and Fisher, Designing For Designers, 34.
2.4 Overseas examples

The categorisation in *Designing for Designers* was useful to establish an understanding of the existing precedents and their treatment of the various components of the school. (For more descriptions and examples on the four types, refer to Appendix A.)

Drawing from this typological study, the Manitoba School, Yale School and Alvaro Siza’s School are three examples with particular characteristics that relate to this project.

**University of Manitoba**

The School of Architecture at the University of Manitoba, designed by Smith Carter Searle Architects in 1959 is of the Courtyard type, with an unsheltered courtyard and a sheltered exhibition space in the centre.

There are two important aspects in its planning: one is the concourse that cuts through the building. If such a concourse works as a shortcut within an urban space, then the courtyards could easily become liveable urban spaces, providing the school with more public attention; the other aspect is its open plan studio space, even though the table layout portrays rigidity, but it has the potential for students to change its layout.

Fig. 2.1: Floor plan of Manitoba School of Architecture.
Yale School of Art and Architecture

The Art and Architecture building at Yale University was designed in 1963 by Paul Rudolph. It has central internal spaces that resemble courtyards, and its studios are connected by open central spaces. This created visual and physical connections which encourages movement and communication between the floors, making it easy for students to observe and learn from each other. One could see from Rudolph’s sectional perspective that the central space gives a sense of wholeness to the building. However, the section suggests a disconnection to the outside.
Alvaro Siza School of Architecture

The Alvaro Siza School of Architecture in Porto, designed by Alvaro Siza in 1995 falls into the compound category. In his earlier sketches, Siza’s design was very much a box with a courtyard in the centre, giving strong emphasis to a central space. Later developments expressed a geometric game with the different functions of the school. It is almost suggestive that each function can be represented by a form. The studio towers are lined against one boundary to express a common function, while the library, exhibition space and lecture hall form the opposite boundary (Fig. 2.4). The end result still showed a central courtyard, but its connections with the buildings are more abrupt and sudden.

Fig. 2.4: Floor Plan of Alvaro Siza School of Architecture.

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Sydney School of Architecture

An architecture summer school programme allowed for a trip to visit the Sydney School of Architecture which was built in the 1960s. The ground floor of the building has a large open space which the students call the “Hearth”, and this space leads to a circular atrium which visually connect the studios on the upper floors. This is similar to the Victoria School, and the atrium has become a very powerful space to draw people to it, but the atrium itself is not enough. There need to be other incentives to work with the atrium such as cafés or convenience stores.

The Sydney School studios are open plan spaces with rows of lockers as dividing elements. They form alcoves for groups of 8 to 12 students, and this division can be adjusted to suit larger or smaller groups. The drawback for the open plan would be noise, especially when the studio is full of students.

Fig. 2.5: Spatial analysis of Sydney School of Architecture Building.

Fig. 2.6: Sydney School studio overlooking central void.
Faculty of Architecture and Planning, University of São Paulo

The building for the São Paulo school was built in 1968, designed by João Vilanova Artigas. One element that was interesting to this project is the use of ramps to connect the four floors, providing a sense of continuity like that of a single plane. This could offer another strategy in connecting multi-storey spaces. In term of its studio space, it has also adopted the open plan approach. Artigas described the spaces as “open and the divisions do not separate the floors but simply give them a wider function.”

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7 Ibid.

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Fig. 2.7: São Paulo School of Architecture Section.

Fig. 2.8: São Paulo School of Architecture ramp connection.
2.3 Local examples

University of Auckland School of Architecture

The Auckland School of Architecture is located in the urban campus of the University of Auckland. The site constraints have forced it to become a multi-storey building. The vertical nature of the building has major restrictions on the circulation through the building. The studios are double height spaces with a mezzanine floor covering over half the studio floor area below, and there were two of this set-up stacked on top of each other, giving four floors of studio space to the 5 year groups.

The idea of using mezzanine floors to create a second layer is similar to the Yale School’s studio, and there are open staircases inside the studio to connect both floors. Since there is only one kitchenette for this double storey set-up, students would inevitably walk to this destination and see others work along the way. This notion of creating destinations within the studio is an effective way to encourage students to learn from each other actively and passively. The studio space forms a holistic volume which the students can comfortably claim as their own.

The open studio space is articulated into alcoves of spaces which are dedicated to the different studio groups. There are computers placed within these alcoves to ease the change of interface from manual to digital, making “computer labs” redundant.

There is an issue with circulation between the studio and other spaces, as elevators and corridors are the main methods to get to the top floors, i.e. third and fifth year studios. The entrance is also discreet and the building is set back from the street front, eliminating the chance of public life to inhabit the spaces around the school.
Fig. 2.10: Spatial analysis of Auckland School of Architecture Building.

- Studio
- Workshop
- Lecture Theatre
- Circulation
- Technical/Computer Lab
- Library
- Staff Offices

Fig. 2.10: Spatial analysis of Auckland School of Architecture Building.
Victoria University of Wellington School of Architecture

The Victoria school building is located in the Te Aro district of Wellington CBD. Facing similar issues to the Auckland school in terms of vertical stacking, but its footprint was large enough to allow for an atrium to visually connect multiple floors. But due to noise issues, the upper levels along the atrium have all been glazed and therefore lost the sense of connection. There are also numerous corridors and side stairwells that create a network of circulation, although this is partly due to fire safety, but it also generates a labyrinthine network of circulation, which is a contrast to the clarity of circulation displayed in the atrium.

The atrium space is of great interest to this project as it demonstrates a possible way of bringing people into the school building. The ground floor is mostly open to the public while the school held regular exhibitions there. The lecture theatre is located on the ground floor, and the atrium acts as a break-out space. This combination, it allows for a variety of public events to take place, such as the Ctrl-Shift Architecture Conference in 2005. The upper floors are more enclosed with the various studio spaces, library and tutor offices. It felt similar to a commercial setting which was possibly due to the original use of the building as Air New Zealand’s office.

Fig. 2.11: Victoria School of Architecture Façade (1), Atrium (2).
Fig. 2.12: Sketch of Victoria School of Architecture Atrium.

Fig. 2.13: Spatial analysis of Victoria School of Architecture Building.

- Studio
- Workshop
- Lecture Theatre
- Circulation
- Technical/Computer Lab
- Library
- Staff Offices
Unitec School of Architecture

Both schools mentioned above are multi-storey buildings in the CBD, but the situation at the Unitec School of Architecture is very different. The former Carrington Asylum building is a two storey brick building built in 1865. Due to its age, financial constraints and heritage nature, there was no room for excessive alterations. Large rooms have been joined together to accommodate large year groups, but a lack of space due to the inclusion of landscape architecture and the design school has forced the master students to be located outside this building. The main issue is the thin width of each wing and the branch-like layout which isolates and separates each area. Also the lack of visibility to any central space makes it hard to unify the school, as the courtyards are south facing and are cold places for half of the year.

Perhaps the good characteristic of the school is the porosity between the corridors and the studios, (Fig. 2.14) where there are glazed openings that allow passers-by to look into the studio. The idea of using destinations to encourage movement is also evident here as the toilets are at the middle of the wing; therefore, plenty of students would traverse the corridors and see the work of other studio rooms.

Fig. 2.14: Unitec School of Architecture Façade (1), Corridor as Exhibition Space (2), Corridor near Studios (3).
Fig. 2.15: Unitec School of Architecture Studio.

Fig. 2.16: Spatial analysis of Unitec School of Architecture Building.
Transparency in a public building

As a case study into the idea of transparency within a building, the recently completed Telecom Building (designed by a joint venture between Architectus and Warren Mahoney Architects) is a very successful example in terms of its use of the atrium. The cladding material within the atrium is mostly timber with flues that help reduce noise, allowing several lounge spaces to be open. Many office and meeting spaces are deliberately left transparent so that an idea of connection is created here. These are effective strategies which can be applied in the new school.

Summary of the precedents

From the above precedent studies, several design strategies have emerged as potentially successful in terms of creating the connection between the school spaces and the public spaces. The idea of allowing a shortcut through the school space would generate public pedestrian flow. Accompany this with courtyard or atrium spaces where exhibitions can take place and coffee can be had, as this space gives centrality to the building.

The geometric representation of Alvaro Siza’s School could lend its use in the exploration of functional representation, and also in establishing relationships between the different functions. The formal representation of functions are powerful tools in expressing the occupancy of a space.

As for the studio spaces, it seems that most examples adopted the flexible plan, but consequently they are all divided into smaller spaces. Evidently a sense of flexibility is desirable, but there needs to be an original set-out to be flexible from. The alcove spaces like the Auckland school and the Sydney school are good starting points, and these divisions can be flexible in size and shape to accommodate different studio groups.
3. Defining the Principles of Architectural Education

Fig. 3.1: The desk critique.
### 3.1 Brief history of development of Architectural Education

Institutionalised architectural education can be dated to the formation of the French Académie Royale d’Architecture by Colbert for Louis XIV in 1671. Its main function was to advise the king on architectural matters. Its architects also set up seminars as their main teaching component.8 In 1819, the Beaux-Art school was opened by Louis XVIII, and within this institution, architectural education became a systemised programme. “There were two kinds of teaching at the École des Beaux-Arts: theory in the classroom and design in the ateliers.”9 In this case, the ateliers were mostly set up by students who sought, and paid, their tutors to work with them. Therefore what was taught in the lectures could have been completely different to what they would learn in the Atelier.

In 1919, Gropius’ Bauhaus school brought forth a different teaching ideal. Its curriculum focused on multi-disciplinary courses from the arts and crafts, forming an integration of “form, craft and technology.”10 This is a starting point where students with different interests and backgrounds come together to learn from each other, forming a collaborative learning environment. The important characteristic of the Bauhaus is that its building was designed in collaboration with its staff and students,11 and their building stood as an icon of their design ideology.

In the post World War II period, schools of architecture were formed within Universities as a movement to “upgrade the social ranking and intellectual competence of architects.”12 Universities believed that they had more advanced knowledge of design and technology. This was the case with a majority of schools around the world. The Beaux-Art and Bauhaus curriculums were the two main streams during this period. Schools such as the University of Pennsylvania opted for the Beaux-Arts curriculum while MIT School preferred the Bauhaus curriculum.

Henry Sanoff pointed out that the “architecture school as a typology has evolved from that of a private atelier to a public institution.” The private atelier refers to the Beaux-Art school where the tutors were out-sourced, whereas the public institutions refers to the architecture schools in the late 20th century. Although studio learning is retained as a core component of architectural education, the contents have changed dramatically. In the Beaux-Art period, the novice would learn by helping the master with drawing tasks, architecture was learnt like a trade skill. The contemporary studio however gives students much more freedom and the studio tutors play a guidance role instead. The process is more liberating and self-guided.

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11 Ibid, 29.
3.2 The Studio pedagogy and its debates.

Drawing from the development of architectural education, the studio has become the main focus. Especially in contemporary schools, the studio environment fosters dialogues between students and tutors, providing the opportunity to learn through communication and discussion. This is a direct contrast to the traditional classroom teaching, because the students are “engaged intellectually and socially, shifting between analytic, synthetic, and evaluative modes of thinking in different sets of activities (drawing, conversing, model-making).”13

In the current educational debate, there are two positions which are of interest to this project. One is Donald Schön’s endorsement of “reflection-in-action”,14 the other Thomas Dutton’s idea of the “Hidden Curriculum”.15 Schön has described “Reflection-in-action” as “a kind of knowing that is inherent in intelligent action”.16 In application to the design studio, it describes the process of artistry in design. The ability to make good judgements and reflection on the architectural enquiry are all important aspects of reflection in action.17

One statement raised by Schön was that “The student does not yet know what he needs to know, yet knows that he needs to look for it.18 The process of design is like a journey into the unknown. The tutor cannot give precise instruction on how to complete the task, and the only way of guidance is through design reviews and critiques, which Schön believes were “grown up around the central theme of practice in design”.19 This means the tutor reflects on the product by the student in order to make sense of its process, and the student reflects on the feedback given and translates it into his or her design. This process would go back and forth through every stage of the design as experiments with alternatives. Eventually the student would become more independent in the process of “reflection-in-action”.

If we apply this knowledge of the “reflection in action” process to precedent cases in chapter 2.2 to 2.4, it is not difficult to understand why the studio spaces were set-up to accommodate small groups of students. Reflection-in-action would not be successful with large audiences as too many voices would cause confusion, nor in isolation as being within the situation would impair one’s judgement. In a small group, students would be able to critique each other, and slowly learn to make good judgements or commonly accepted judgements.

In terms of the second position, Dutton describes the ‘Hidden Curriculum’ as the social hierarchical structure of the studio setting, which is integral to our society.20 Dutton holds the view that knowledge is not neutral, especially studio knowledge, as the critique are from biased voices with their own agendas. The Auckland School Lecturer Anthony Ward is in support of Dutton’s view, in his article “Ideology, culture and the design studio”, Ward elaborated on the ‘Hidden Curriculum’ and how it is a failing of the design studio to rely on biased knowledge. His two

16 Schon, The Design Studio, 21.
17 Ibid, 83.
18 Ibid, 56.
and behaviour as well as design skills in order to become an architect. It is inevitable that students would come into contact with visiting architects, and the influence of behaviour would be a by-product of communication between them.

Drawing from these ideas of the hidden curriculum, how would they affect the architecture of a school? The issues at hand are concerned with the curriculum and therefore have minimal impact on the spaces. If the studios are to become community studios, then the studio space would need to be more open to public, or the presentation needs to be in a public space of the school, i.e. the courtyard or foyer.

There is one particular aspect of studio education that could affect the architecture, and that is the critique. It is a crucial part of learning to design because of the feedback about the students’ judgements in their design processes. It is also a display of results of the design processes. If the result appears to have major flaws, i.e. the design has bad circulation, it automatically suggests a fault in the design process. The students would then reflect on their mistakes and translate a solution into their next design. Since the Critique is such an important aspect of architectural education, it should be conducted in a dedicated space. It should give significance to the presenter, similar to the way that a Pulpitum gives significance to the public orator.

Another aspect of the Hidden Curriculum has been described by Garry Stevens as the studio being an “effective social filter, ensuring that only students with the right sort of social being pass through the system to graduate.”23 This suggests that students need to adopt a certain attitude and behaviour as well as design skills in order to become an architect. It is inevitable that students would come into contact with visiting architects, and the influence of behaviour would be a by-product of communication between them.

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22 Ibid,14.
### 3.3 Reasons to go public

The emphasis of architectural education is on the design process. It is a process from cognition of a design problem to generating a design solution. Even though techniques such as drawing can be taught like science, the process of generating concepts and alternative solutions could not be taught directly, i.e. one cannot make another to have ideas. In terms of engaging the public, this design process would be uninteresting to the majority as it is usually irrational and long.

However, the critique would be a very suitable phase of the design process to present to the public, as it combines presentation, judging and reflection together. It is a window through which the students could present their innovation to the public, it a new method of living or a vision for their city. The critique is a choreographed performance, where students are highly encouraged, or even pressured, to be convincing in their presentation.

To publicise the critique is a way to show the competence of these future architects to serve society with their innovation and skill. It would help ensure the importance of architects in society. But first, the critique needs to be made significant by the spaces it occupies in a school of architecture. It would be a significant element in the new school in terms of visual and accessibility.

In support to publicising the critique, the school would become a platform for individuals who are interested in architecture. Practitioners and academics could deliver their ideas and theories in the form of public lectures or short courses. The school could utilise exhibitions and publication launch events to increase the public’s awareness of architecture. This means the school’s architecture would require easily accessible seminar rooms and public spaces that are holistically integrated within the building.

### 3.4 Core components of Architectural Education

By examining the historical development of architectural education, we can generalise its learning environment into 2 groups, the theory taught in the lecture and practice learnt in studio. If we look at the courses in the architecture programme, they can be distilled further into three categories: academic, technological and practical.

“Academic” refers to architectural history, theory and criticism; this is mostly taught in lecture theatres, received in critiques and researched in the library. “Technological” refers to knowledge in building technology; this is also taught in lecture theatres and experimented in workshops and studio, and reinforced with site visits. “Practical” refers to design skills; this is mostly learned in the studios and is supported with workshop sessions if necessary. As discussed in chapter 3.3, the importance of the critique would require a dedicated space for this activity.

Five main components of an architectural educational typology have been derived, the lecture theatre, the library, the studio, the workshop and the critique space. These components are then supported by administration spaces, exhibition spaces and circulation spaces. Each of these components has varying degrees of openness and privacy.
3.4.1 Explorations of Spatial Organisations

The following explorations are 3-dimensional diagrammatic models on the spatial organisations of these components. They also explore how these components could be redefined.

3.4.1.1 The Courtyard

Starting with the typical courtyard type, the lecture theatre, library and the administration are treated as the academic core of the school. The workshop is placed at the bottom of this organisation due to its rough nature. The overall arrangement maintains a singular entity. The main courtyard/atrium is enclosed by studios, forming a central space that holds the studio space together.

The pieces of grey in the studio represent the dispersed placement of tutors in the studio; this is to suggest a supporting role that tutors play in studio instead of a dominating one. Geoffrey Broadbent has given example of Mies van der Rohe pushing his own formal language which resulted in his students designing with very similar languages.24 Donald Schón has described a process by which the tutor identifies the student’s problem and understanding, and makes suggestions and alternatives as a way of dialoguing with the design process. This is more supportive than enforcing a particular formal language.

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3.4.1.2 The Thoroughfare

Christopher Alexander believes that a University should be a “Marketplace of ideas,” where the individual could freely choose their courses like buying from the market. Drawing from this concept, the circulation space becomes a thoroughfare, and the components of the school can be flexibly attached to it. This organisation is adaptable to future change as obsolete components can be removed and replaced with new components.

The V shape of the circulation path represents two end conditions, the narrow end represents controlled/private spaces for school use, i.e. the administration, and the wider end represents lose/open spaces that are for public use, i.e. critique space.

The transparent extrusions represent the penetration of digital media in the building as design and presentation tools. Placing digital tools such as computers, printers, projectors and rapid-prototyping machines in the studio itself would render the computer lab and printing shop obsolete. Since these tools can speed up the design process, it is necessary to integrate them into the studio.

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3.4.1.3 The Anchor Points

This model examines the roles of the components of the school and the connectivity between them. The Lecture theatre, the Library and the Critique/Exhibition space are defined as visible anchors of the school, and the space between them is then articulated by studio space, workshop space and administration space.

In this model, the flexible nature of studio becomes the cement that holds the defined components such as the library and lecture theatre together. It is necessary to realise that other components of the school also play their role in education as well as the studio and this makes the connection of these components very important. For example, the workshop has become an integral part of the studio as it provides the tools for crafting. The “connection between studio and scholarship by way of the library is also important” as the library acts as a portal to information.

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3.4.1.4 Evaluation of Explorations

From these explorations, the “Thoroughfare” presented promising aspects in terms of engaging the public. It would potentially generate adequate pedestrian traffic as the source for public audience. However, the flexible nature in the thoroughfare model’s organisation brought an ephemeral quality to the building which is less preferable to the third model with anchoring elements. A sense of permanence is necessary for the school of architecture as a way to consolidate its presence in society.

The studio component shown in the models represents a flexible placement of studio in the overall building. It is expressing an informal nature which is suggestive of the design processes that occur within it. The spatial continuity expressed by the first two models are also important for the studio space to encourage movement, collaboration and communication within the studio.
4. The Site
Fig. 4.1: Location diagram of all three sites.
4.1 Site Selection

For the school to engage the public audience, the school needs to be sited with plenty of public attention. Three sites in Auckland have been selected for evaluation of their suitability.

Site 1 - Karangahape Road

The first site is located near Karangahape Road and alongside the Northern Motorway junction. It was initially selected for its high visibility from the motorway which makes perfect for a billboard of architecture. The terrain of this site has a steep slope down towards the motorway on the Southeast side, and the width of the site heavily constrains the shape of the building. The noise from the motorway would be a difficult issue to deal with and would dictate the design of the southern façade.

![Fig. 4.2: Karangahape Rd Site Plan.](image)
Site 2 - Anzac Avenue

This site is located between Anzac Avenue and Beach Road. It is a gap in the urban grain when viewed from both sides. The change in level between each side offers interesting implications for circulation within the school. A link between Anzac Avenue and Beach Road could potentially be created within the school, thus generating a route for public to interact with the school. The Thoroughfare model could potentially work well on this site. Its proximity to the Vector Arena and the high density apartment buildings would ensure a high public attention around the area.

Fig. 4.3: Anzac Avenue Site Plan.
Site 3 - Mayoral Drive Site

This site is an open car park behind the row of brick buildings on Queen Street and it is bounded by the Mayoral Drive Bridge and the remnants of Greys Avenue. The recent addition of the Q-Theatre frames the northern boundary, and the Auckland Town Hall and Aotea Square is just further north of the site. The materiality of the brick buildings would require a responsive design that respects the existing quality of the place.

There is an underpass beneath the bridge which links Myers Park, a hidden oasis on the south side. Placing the school here could potentially rejuvenate the connection between two major public spaces, turning the school into an anchor point. The pedestrian count along Queen Street is extremely high and the vehicle count is also substantial, making it possible for both visual expression and physical interaction.
Evaluation

Through a critical analysis of all three sites, several issues have been addressed. Site 1 lacks pedestrian flow and its location made it very difficult to attract people. The proximity to the motorway would dictate many design aspects, which constrains further explorations. Site 2 has sufficient traffic flow but its surrounding context have very little street life. In order to generate a successful public space, it would require extensive urban planning of the surrounding area, which is beyond the scope of this project. Site 3 however, is located between two existing public spaces, and the change in level from Queen Street provides the opportunity for a new shortcut. The intersection of these paths will help the school to become a meeting point along them.
Site 3 offered the most room for exploration in terms of its engagement with the public realm. The contextual complexity also made it the most challenging one, as it would need to respond to a variety of factors such as scale, materiality and its outward image to the public.

Fig. 4.6: Beside the Town Hall (B).
Fig. 4.7: The Basement Bar (C).
Fig. 4.8: The rear service stairs (D).
Fig. 4.9: Location Legend.
4.2 Historical Context

Queen Street is one of the oldest streets in Auckland CBD, developed from a muddy creek in the 1840s to the exuberant urban centre that we know today.27 The Town Hall building is one of the most prominent buildings along Queen Street, and before Greys Avenue was cut off by Aotea Square, the Town Hall Building was a dominant feature at the major intersection of Queen Street and Greys Avenue.

The buildings adjacent to the Town Hall are mostly of concrete frame and brick infill structure, especially the Auckland Sunday School Union building. The rear of these brick buildings expressed a more intimate language. The narrow staircases and walkways that traversed up and down the building spoke of intimate activities, thus reducing the scale and rhythm of this space. The recent addition of Q-Theatre designed by Cheshire Architects brought new interests to the site; it has already transformed this area by creating a secondary entrance that faces the site, giving acknowledgement to the Basement Bar beside the car park. The small service courtyard serves the Kura Sake Bar and Tanuki’s Cave restaurant, this courtyard has the potential to develop its own street culture.

Venturing beyond Greys Avenue is Aotea Square, with Aotea Events Centre and the Metro Centre bounding its perimeter. The first is a sculptural collection of terraces and the latter is a postmodernist jumble of forms, combined with the baroque Town Hall, these three major


buildings do not form a coherent dialogue. By referring to Ralf Weber’s “five principles of figural segregation”28 on urban design, the Aotea Square does not effectively express “centricity”, “concavity”, “closure

and peripheral density”, it does not have “uniformity and coherence of boundaries” and its square space is bland without “internal divisions”.

4.2 Circulation

Mayoral Drive has formed a ring road around the Town Hall area which has no particular destination. Its placement has created a vehicular barrier for the encircled areas. The pedestrian congestion at the Mayoral Drive and Queen Street intersection made it an important gathering spot. In the current state, pedestrian patterns suggest that the majority would travel along Queen Street where street life occurs. At the rear of the brick buildings, the Basement Bar is a venue for Indie artists to perform and to exhibit. This place drew small crowds during afternoons and night times, claiming a portion of the car park as a node of social activities.

The underpass beneath Mayoral Drive is the only direct connection to Myers Park. It is often used by visitors to and from the park. This underpass is also a place for homeless people to shelter. During the night, lighting conditions are poor and the park end of the underpass became a gathering spot for youth drinkers. Mayoral Drive is vehicle oriented and few pedestrians walk alongside the bridge, as there is no shelter or retreating space like Queen Street.

Access to site is difficult from Queen Street. The addition of Q-Theatre has created an access through the theatre and down into the car park at the rear, but this is mainly for patron use and it is not open 24/7. A new School of Architecture here has the potential to rejuvenate the underpass and make Mayoral Drive more pedestrian-oriented. A connection between Aotea Square, Queen Street and Myers Park would turn the school into a focal point of public activities.

Fig. 4.11: Circulation Site Plan
4.3 Street Front Activity

There are various shops, restaurants and a comedy theatre along the western side of Queen Street, and there are always groups of people gathered here at night when the bars are open. There is a similar situation around the Basement Bar behind the Queen Street frontage. (Fig. 4.12) The section of Mayoral Drive that bridges over the Myers Park valley has no buildings that open onto it and therefore no street life. However, there is an opportunity to integrate the bridge into the School of Architecture. This will generate new possible activities to occur along Mayoral Drive.

The back side of the brick buildings need to be treated like façades as they have a distinct visual language. The staircases and walkways are for servicing these buildings and they are frequently used by their occupants. The yellow zone (Fig. 4.13) shows the area that could potentially become occupied with street life, and the school building would need to consider this aspect in its design.
4.4 Topography and Orientation

The lowest point at the Auckland Sunday School Union building position is roughly 7 metres below Queen Street level. The underpass under Mayoral Drive Bridge is 16 metres wide, but 12 metres of this underpass is fenced off from public access, leaving a tight four meter wide foot path.

The Greys Avenue boundary has several protected trees roughly 30 meters from the southern boundary; they may affect the architectural form as they did for the Q-theatre. The Q-theatre on the northern boundary will block sunlight into the site during winter; this issue would have implications on the courtyard and internal design.

Fig. 4.14: Topographic Section.
5. Design Process
5.1 Functional Requirements

The diagrammatic models have only dealt with the educational programme itself. This section will deal with the design more holistically, taking into account the contexts, site, educational function of the school and the idea of being a public interface.

Drawing from precedent studies, several key issues emerged in making the school a successful public space:

1. To exhibit the critique process to the public audience as a way of demonstrating competence and skill to the public.

2. Spatial Integration of school and the public realm to accommodate open courses and lectures.

3. The influence of public occupancy on the functioning of the school, as security would be an issue.

4. Protected trees and the Q-Theatre will block off a lot of light in winter, passive heating and cooling needs to be dealt with.

5. The cognoscibility of the public routes within the building.

The functional requirements can be split into 4 categories:

Public Participation/Interaction – These are for activities that the public can participate in or interact with.

- Atrium
- Critique spaces
- Seminar rooms
- Exhibition spaces
- Lecture theatres

Public Viewable – These are the school components that are visible or partially visible to the public.

- Library
- Studio
- Workshop
- Exhibition space

Student Use – These are for students to use and occupy.

- Lecture Theatre
- Critique Space
- Exhibition Space

School Use – These are the administration and office spaces.

- Office for tutors
- Storage space
- Service space
- Parking Space
From these lists of functions, a sectional function schematic is developed. It illustrated a sense of porosity between the different functions, and the idea public traversing through the school is emphasised.
5.2 Design Explorations

5.2.1 Exploration 1 – To understand the site

This exploration is to make sense of the physicality of the site through an exercise of massing.

1. The boundary of the site is shown by the white foam board.

2. The building mass is pulled away from Q-Theatre and generates a courtyard space between them.

3. Establishing circulation within the mass to connect Queen Street corner, Greys Avenue and the underpass. The building mass is split into smaller pieces.

4. By treating the circulation as penetrations, the building mass can become a single entity with cave-like tunnels as circulation. An opening is cut on top to bring light into the atrium.

5. The curved façade along mayoral drive is polygonised and the penetrations of circulation are more articulated.

The result is the fragmentation of a singular volume through placements of circulation routes, emphasising the importance of public accessibility. The fragmentation reduces the scale of these articulated volumes, making the built form more fitting in scale.
5.2.2 Exploration 2 – Increasing the scale

The scale of the model has increased from 1:1000 to 1:500, revealing more detail about the landscape and the context buildings.

1. The two ends of Mayoral Drive Bridge has been filled and retained to decrease the span, thus leaving a choke-hole beneath as the underpass.

2. By removing the bridge and the retaining wall, the original landscape is restored with a natural connection.

3. A new bridge of a lighter form is put in place which would also be integrated with the built form. It would complete the journey of moving through indoor and outdoor spaces. The light-wells in the bridge are to retain the rhythm of light and dark of the underpass. It acts as a transition from natural space (Myers Park) to artificial space (the school).

4. A building mass in the form of two longitudinal volumes are added. The top one is offset slightly and cantilevers over the bridge, turning its head to acknowledge the intersection. Functionally it could become a screen for display.

5. A sculptural volume is placed at the south side of the bridge, acting like a landmark feature from the park side.
The gesture of facing the intersection would draw attention to this protruding form. It engages the neighbouring spaces formally. This exercise has generated the issue of dealing with the bridge area. The space around the bridge would need to become a major pathway to lead through the school.

The volume of the building still appears too big in comparison with its neighbours, which could be perceived as ‘standoff-ish’, thus reducing the likelihood of the public using it as a shortcut. The issue to be addressed in the next exploration would be to break down the volume.
5.2.3 Exploration 3 – Breaking down the grain

In an alternative approach to massing, this model articulates the volume into smaller grains to merge coherently with the site.

1. Similar starting point by removing the bridge and the retaining structures. The space under the bridge is redesigned into public spaces for cafes and exhibition spaces.

2. The porosity of the model explores the visual transparency and a sense of connection from inside and outside of the building.

3. The façade facing Mayoral Drive is split into separate volumes with different materials and textures; this breaks up the monumentality of a single volume.

4. The façade along Greys Ave has a stronger element on the corner, reinstating the urban grain as a whole.

The outcome of this exploration is an understanding of the scale of the site. Also the inter-storey connection generated through overlapping planes is another desirable character, which could be useful in the development of the studio space.

The porosity of this model supports the idea of transparency. The spaces alongside the public path would be open to view so the sense of connection within this public realm is enhanced.

Fig. 5.7: Experiment with form and scale.
5.2.4 Exploration 4 – Hugging the neighbours

This model takes the opposite approach to the courtyard and hugs the neighbouring buildings, generating intimate spaces between the existing and the new. A small courtyard is formed near the back entrance of the Q-Theatre which has the potential to be developed into a habitable space. The space at the corner of Greys Avenue and Mayoral Drive is semi-enclosed by the building mass, and thus it becomes the school’s courtyard.

The punctures through the building mass were incorporated from the first explorations as they were successful in generating a range of light and dark in the interior space. The transition of light would be integral to the experience of walking through the laneways, and these laneways act as short cuts to the Basement Bar area.

![Fig. 5.8: Massing model with corner as public space.](image1)

![Fig. 5.9: Laneways between the old and new.](image2)
The cantilevering volume facing the Mayoral Drive and Queen Street is also incorporated here. It increases the width of the internal space in this narrow part of the site and provides shelter for pedestrians.

The outcome of this exploration is the regeneration of intimate spaces in the laneways between the old and new. Along with the possible street culture that could develop here, it would give new life to the school. The change in composition has created places with a range of different degrees of privacy, accommodating a variety of activities from art festivals to a coffee break.
5.2.5 Exploration 5 – Connections

This model (Fig. 5.13) created a connection between the smaller courtyard and the bigger public space through the atrium. This would make the intersection of student routes and public routes into a focal point.

The wing besides the Auckland Sunday School building has left a narrow opening that act as a light shaft for the interior space and the Queen Street entrance. In the second version (Fig. 5.14) this wing has been butted up against the existing brick wall and a secondary atrium is added. This atrium would become the focus for this wing and also a spatial uplift for the Queen Street and Mayoral Drive entries.

The deficiency of this model is that the building volume is divided and therefore breaks the holistic presence of the school. The corner of Mayoral Drive and Greys Avenue also lacks definition, and if there are insufficient events to occupy this area, it would become a barren space.

Fig. 5.13: Connection through the atrium.
Fig. 5.14: The secondary atrium in the studio wing.
Fig. 5.15: Circulation is focused in this atrium.
5.2.6 Exploration 6 – Reinforcing the Corner

Without a strong built form, the sense of intersection at the corner of Mayoral Drive and Greys Avenue would only be expressed by vehicular traffic. This model has placed a sculptural volume at this corner. Its main function would include a lecture theatre underground, a library from ground floor to second floor, and the administration area above. This forms the academic sector of the school. (Fig. 5.17)

A few explorations were made for this block. The first is a fairly standard arrangement with circulation placed in the central void. The second model placed circulation routes on the perimeter of the building, so the movement of its occupants create a sense of liveliness for onlookers. The third turns the block into a spiral which offers a continuous journey through the building, in which case its spatial experience would be more dynamic. The slight turn of its volume to face towards Aotea Square acknowledges the pedestrians on this route, and it also becomes a beacon of light during night time.

Fig. 5.16: The twist in the building beckons the pedestrians from Aotea Square.

Fig. 5.17: Variations of the Academic Block.
Between the academic block and the studio wing lies the main atrium. It connects multiple access routes, making it the focal point of the school. At the bending point of the atrium on the first floor is a public critique space (Fig. 5.18), located here it will be visible from both entrances of the atrium. By raising it above the ground plane, it gains significance from its surrounding spaces. The protruding volumes marked in red (Fig. 5.19) are seminar rooms/meeting pods, and their frequent occupancy would add visual interest to the atrium.

The studio wing took on a thinner and more continuous form. The open floor plan would allow flexible arrangements to accommodate different group sizes. The thinner volume and the atrium would also contribute to ventilation and stack effect.

Sky bridges are added to connect the studio spaces to the staff areas, allowing easier access and also movement in the higher spaces of the atrium. The frequent movement of tutors and students crossing these bridges would add motion and dynamics to more than just the ground floor. Studio tutors would spend their teaching time in an informal lounge-like space within the studio. It is when they require private space...
for research that they retreat to their offices. This means the tutors would
perform more tasks in the studio, consequently spend more time amongst
students (Fig. 5.20).

The second version (Fig. 5.21) of this model included more two-
storey spaces for the studio area. The mezzanine floors would add a range
of spaces that vary in degrees of openness, which enriches the studio
environment. The double height spaces could be used for critiques and
others times, they could become working areas or the tutoring lounge.
The double height spaces also act as view shafts into other areas so that
students are more aware of the presence of other students, and in turn
increasing the likelihood of discussions and dialogue.

Fig. 5.20: The link in the sky.

Fig. 5.21: The studio space and crit space.

Fig. 5.22: Acknowledging the intersection.
This version also brought back the cantilevering volume used in Exploration 4 as it was an effective move to provide shelter for pedestrians and acknowledge the intersection (Fig. 5.22). This suggests that the façade should have a degree of transparency in order to create the idea of connection. A transparent façade would also allow students to look out to Myers Park, offering a green oasis to the mind while physically situated within a dense urban setting.
5.2.6.1 Exploration 6.1 – The studio space

Drawing from the issues of studio learning discussed in chapter 3.2 and 3.3, it is evident that studio activities take place in a range of spaces with different degrees of openness. To accommodate such a variety, a completely open hall-like space would not suffice. The start of a studio project would require a bigger space to present the brief, while during the design stage, the spaces required are smaller with a greater degree of privacy. The double height space serves as a threshold transition in the overall studio space.

Another important factor to be considered is the effect of digitisation on the design process. The digital medium has sped up and enriched the design process by its power to emulate a mixture of tools. Physical models can be made from rapid prototyping machines such as the laser cutter and the CNC router.

These digital tools are currently incorporated into the Unitec Architecture School in a forced manner such as computer labs. Their inclusion should be integrated with the design process. Fig. 5.25 shows how frequent the digital media could be utilised in design. So what does this mean in terms of architectural implications? Figures 5.26 and 5.27 explore the idea of a digital centre where the outputs from students such as printing, laser cutting, and image projection would all end up in this place, so that it becomes a new destination for discussion and informal critique.

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Fig. 5.25: Studio process diagram.
The World Wide Web has given rise to distance learning in many disciplines. One would question the validity of dedicated studio spaces in the future if discussion and critique could occur in cyberspace. Imagine two situations: within the studio space, one student could easily engage another in a design discussion about their work. The initiation and permission of the discussion occurs face to face. Multiple students could join this discussion in the same fashion if they are present and are interested. In a wireless scenario, one would need the necessary devices to present his work to the second party, and this medium needs to be adequate enough to show his work properly. Two obstacles are presented even before discussion began which is evident of the difficulty of distance learning for design studio. Even if the discussion occurs in the form of conference calling, it eliminates the convenience that students would have to tutoring resources if both students and tutors were in the same studio space.

This example illustrates the necessity of the studio space. The digital media is a powerful support tool, it works by emulating real experiences, increasing efficiency but can never fully capture the essence of that experience. Even in a digital age, it is still vital for the school of architecture to provide this space.
5.2.7 Exploration 7 – Developed Design

Ground Floor

The primary lecture theatre, car park and workshop are located on the site’s ground floor. The car park act as a noise buffer between the lecture theatre and the workshop - these three parts form the platform for the atrium above. The workshop extends further to the side of the Auckland Sunday School building. The bigger part of the workshop which is closer to the service lane would be dedicated for wood and steel work, while the smaller space can house the digital fabrication labs for large-scale prototyping. The laneway becomes a penetration into the workshop realm, and a series of sealed openings would present the workshop process to pedestrians. As mentioned before, the Basement bar is a venue for a variety of musicians and artists, its audience would have more appreciation to an artistic atmosphere. This would link well with the School of architecture, as the process of crafting could be a performance in its own right.

Under the bridge is a secondary theatre, it is intended to be a flexible theatre that can collapse its front wall to form an amphitheatre setting with the outdoor spaces. With this move, the boundary between the school and public grounds are blurred, forming a more continuous experience through this space.

Fig. 5.28: Ground floor.
Fig. 5.29: The laneways around the 'pulpitum'.
First Floor

The 1st floor is the platform atop the workshop and carparks. The atrium forms its centre with subsidiary spaces such as cafes, student help desk and exhibition to accommodate public use. The ramp entry conceals the full height of the atrium until one makes the transition into it, and the Greys Avenue entrance draws back from the boundary to create the “in-between realm”\(^ {29} \) for transitioning from inside to outside. Within the Atrium there is access to the primary lecture theatre, the library foyer, down to the Basement Bar laneway and up towards the critique space with a sneak peak into some of the studio spaces.

Second Floor

This floor enters at Queen Street level, and is immediately greeted with the void. Two options are presented here: the first option is to travel down the main staircase and cross the foot bridge on first floor to reach the Atrium. The second option is to walk along the second floor foot bridge, passing several studios (marked yellow) and the Critique space, then down into the atrium. Walking through this space is an experience of integration with the school realm. The visibility of student activities and the dynamic forms would add liveliness to the public experience.

\(^ {29} \) Alexander, A Pattern Language, 562.
**Third, Fourth and Fifth Floors**

The three higher floors are all dedicated for studio use. Vertical circulations in the form of stairs are focused around the 3 studio zones on second floor. This would articulate the studio space vertically, i.e. each year group occupies several floors of a certain wing, instead of division by floor. This makes it easier for different year groups to mingle.

In this exploration, the Academic block took on a slightly different form. The library foyer is open to public use and it would be a place for reading and exhibition of student work. The vertical circulation is placed on the western façade to filter the afternoon sun, and the stairs

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Fig. 5.32: Third floor.

Fig. 5.33: Fourth floor.

Fig. 5.34: Fifth Floor.
are crisscrossing each other, providing a continuous journey travelling up and down. This is a circulation strategy to prolong the path in the library, increasing the likelihood of chance discovery of things of interest other than the intended subject.

**Summary**

The positive aspects in this exploration are the dynamic contours of the building form. They increase the sense of movement within the Atrium space. The placement of the Critique space at the turning point of the atrium has made it into an anchor for the flowing atrium, this achieves the desired effect of giving significance to the Critique process.

The ramp floors that faces Mayoral Drive are in-house critique spaces, and its form provides the building’s façade with dynamic qualities. By controlling the degree of transparency, these spaces could become interesting visual features to spark curiosity.

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**Fig. 5.35: Circulation within the Academic Block.**

**Fig. 5.36: Breakdown of circulation routes.**
5.2.7.1 Exploration 7.1 – Interlock of two realms.

As a demonstration of figural interlock, the school and public realms are modelled with transparent and frosted fiberglass which slot into each other. The two pieces also represent a near balanced allotment of space for both the school and public realms. This exercise has emphasised the importance of the public realm within the building, and it also expresses the penetrative nature of the public realm into the school.

Fig. 5.37: Interlock between school and public.
5.2.8 Exploration 8 - Planning and spatial experience.

This exercise expands on the previous chapter and concentrates on the spatial experience as one move through the building. The visual outlook is important to make one feel at ease while being inside it, and in turn draw the public into its atriums and pathways.

Ground Floor

The spatial arrangement in the ground floor is very similar to the previous version. With a few refinements on the workshop enclosure and the laneway staircase, a proper set back is formed, thus generating a pause along this circulation route (Fig. 5.38). This pause of space is located outside the Basement Bar, allowing this local resident to spread its vibe beyond its confined boundary.

Formally, the ground floor becomes the pulpitum on which the public and school realms are established. In respect to its masonry context, the materials for this pulpitum would mostly be cast in-situ concrete with a rough finish (Fig. 5.40).

Fig. 5.38: Ground Floor Plan.

Fig. 5.40: Pulpitum Materials.
Fig. 5.39: Laneway beside the workshop.

Fig. 5.40: Library foyer and entrance to lecture theatre.
First Floor

The first floor is the main atrium floor. Entering from the Greys Avenue entrance, the winding staircase becomes a dominant figure that leads your gaze towards the critique space above.

On the left side is the cafeteria, and to the right is a staircase that leads to the library foyer (Fig. 5.40). Underneath this staircase is a corridor where students would wait to enter the lecture theatre, this space is pulled back from the atrium to create a transition in threshold.

If one enters the atrium from the ramp side, the exhibition space on the right is designed as a raised platform to give significance to its function. The nature of the atrium is free flowing and the objects of students’ creations could easily be placed across its floors. A frequent exhibition of student artistry would certainly intrigue the public audience.

Moving further towards Queen Street side, a bridge spans over the laneway below. It leads to the bottom of the smaller atrium that greets the Queen Street entrance on the floor above.
Second Floor

The second floor is the upper level of the public realm within the school building. The main entrance is at the corner of Mayoral Drive and Queen Street, which is greeted by the smaller atrium (Fig. 5.43). There is also a side entry alongside Queen Street (Fig. 5.42), it is an alternative route during afterhours, as the second floor closes at night while first floor is open at all times.

There are studio areas alongside the public paths which generate the sense of transparency, openness and connection. This is in opposition to the introverted image portrayed by the current School of Architecture at Unitec and also other institutions.
Progressing beyond the studios are more exhibition spaces, both students and the public would travel past these spaces, so they always have a chance to see new work. Through the exhibition space is the public critique space. The purpose of the public critique is to let students demonstrate their design and presentation skills to a wider audience. This is an showcase of artistry that represents the competence of the soon-to-be architects.

Across the atrium is the library foyer, this space is an open reading space for both the public and school. One could easily enjoy a coffee while reading architecture magazines in this space. The two corners are connected to the outside via ramps that ultimately join at the corner of Mayoral Drive and Grey’s Avenue (Fig. 5.45). Passage through this sheltered space is open at all times, and it mellows the transition between inside and outside while offering a glimpse to the interior at the same time (Fig. 5.47).
The south east portion has offset floor plates with stairs that connect them. This has generated multiple view shafts and connections into other studio floors, comparable to the Auckland School studios but this is more dynamic and vibrant.

The academic block across the atrium is formed by library foyer with two additional levels of reading space. Above the library are two levels of staff space. The difference of these offices is that they are similar to the studio alcoves. Each alcove would hold between 3 to 6 staff members depending on their needs. This is to encourage sharing of resources and mutual support in their own academic research.

Fig. 5.45: Greys Avenue façade.
Third, Fourth and Fifth Floor

The top three floors in the studio wing are all dedicated for studio use. The spaces marked in orange are meeting pods which the tutors could use as a discussion space. These pods are extruded into the atrium, creating a visual impact in the atrium space.

The layout of the studio is fairly fluid, as students would inevitably move desks around to suit their purpose. A general layout is given on the second floor as an indication of how it could allow a group of students to share an alcove. The size of these alcoves should allow 4 to 8 students.

The ramped spaces in the southern side are for critiques within the studio, the sloped floor would seat the students, while the presenter would present at the bottom. The visual implication of this is more dynamism in the floor plates and also the façade.
Fig. 5.47: Bird's eye view of the academic block.
The library has visible staircases for vertical circulation and they are snaking their way to the top (Fig. 5.49). It is more visually intriguing than the one used in previous chapters, and it creates a focus around the void above the library foyer. The library and offices are also connected back to the studios with sky bridges, so the staff members would have to travel through either the library or the studio to get to their offices. This ensures that these two components would become a daily routine for staff members, and students would find it easier to locate help from tutors.

Fig. 5.48: Winding staircase leading up to public critique space.

Fig. 5.49: Looking towards studio wing from library.

Fig. 5.50: Looking down towards public critique area and main display screen.
Looking down into the atrium, the public critique space is visually distinguished by its form and also the winding staircase that leads up to it (Fig. 5.48). The wall covering the extruding meeting pod is strategically placed to become a display screen. As animated presentations are getting more common, students’ work could easily be presented in a digital manner. This brings another layer of presentation to publicise the school.

The outcome of this design is a well-formed atrium space which spatially connects the various components of the school. It has strategically placed the public routes within the building so that their paths would expose the public to students and staff, and vice versa. The various critique spaces and exhibition spaces are integrated into the paths of the public, ensuring a direct visual delivery of students’ work.

The studios are all spatially connected to encourage inter-studio learning as this is a rich and developing source of knowledge. The Atrium cover is a series of glazed panels with their mullions forming a dynamic pattern, making the atrium space more vibrant.

Fig. 5.51: Fourth floor plan.
Fig. 5.52: Fifth floor plan.

Fig. 5.53: Six floor plan.
6. Critical Appraisal
The Merge of Two Realms

Within this new school of architecture, the integration with the public realm is emphasised by the intersection of various public paths, they collide within the atrium and bring a variety of audiences into this space. The strategically placed public routes are convenient short-cuts compared to the existing option of circumnavigating around the site. Coupled with the amenities offered within the atrium, they would likely to attract a sizable crowd to pass through the school.

The school building has transformed the site from an ordinary car park to a lively public space. It draws on the existing characteristics which are contributing generatively to a public space, i.e. the Basement Bar, and extend this into the educational entity. The exposure of the processes and products of architectural learning through the architecture of the school is what gives it ‘pulpitumic’ qualities.

The various twists and turns of the building volume is a personified gesture, as if they are beckoning the passers-by to enter. The entry at the western corner is designed in such a way that the landing becomes a sheltered transition. By standing there while waiting for the lights, you are already in the building with glimpses of activities that could very well cause interest and lure you in.

With the benefits of introducing the public realm into an educational realm, it also introduced problems of security. The separation between the two realms is dealt by shutting the public critique level so that at night, it transitions from the public realm into the school realm. In this case, the students could wander through this exhibition space accompanied by their fellow colleagues or the silence of the night.

Architectural Expression of the School of Architecture

The design of the school drew largely from the precedents in terms of its spatial requirements, and the new design has elaborated on the dynamism within the studio environment. The offsetting of floor levels, continuity of the studio floor and the vertical connection within the studio all contribute to linking these myriads of spaces together, and provides a sense of wholeness to the student dominant territory.

In terms of visual perception, the school is split into two. The studio wing’s fluid nature is expressive of its informal learning environment, while the academic block containing administration, library and lecture theatre is portrayed as a distinctly separate entity. This visual separation suggests the nature of the different function that it houses, and it is in respect to the need of dedicated space for tutors and their own studies.

A strong visual element on the studio side is the meeting pods. The purpose of these is that small studio groups could hold desk critiques in this space without disturbing other students. And when they are not used for meetings, they become lounge spaces for students to rest in. Their occupancy expresses the studio learning process through discussions and group work, and they add visual interest for the on-lookers.

Respect to Site and Context

The context of this school is built up of brick buildings with haphazard staircases lining the rear elevations. These elements formed a distinct character for the site. The haphazard stairs are echoed by the staircase in the studios which are also on the periphery. The building
volume is broken down into smaller pieces by the articulation of layers and transparency, and the rears of the brick buildings are visible even from the library floors. The school embraces the ruggedness of these brick buildings and incorporated them as space defining elements for the laneways around the school, and therefore, the nature of the site is preserved.

In response to the objectives of public integration and creating a typological expression, the proposed design has explored different methods of integration. The combination of public routes and atriums with visual interests from the school realm seems to be the most adequate solution, and the formal aspects of the design reflect both the formal and informal nature of architectural learning. The benefit of this school is that it provides the public with an interface into architecture, it is the platform of communicating architectural ideas and alongside this process, it increases the awareness of the public on how architecture contributes to our built environment. In turn the participation of the public plays an integral part in the ‘pulpatomic’ school.

Fig. 6.1: View of Southern elevation and bridge underpass.
7. Bibliography


*Queen Street History*, http://www.roadworks.co.nz/queenstreet/history/1840.asp (accessed April 29, 2010).


8. List of Figures

Fig. 1.1: The orator on the pulpitum.

Fig. 2.1: Floor plan of Manitoba School of Architecture. - Nasar, L. Jack, Designing For Designers: Lessons Learned From Schools of Architecture.
Fig. 2.2: Sectional Perspective of Yale School of Arts and Architecture. - Rudolph, Paul, Architectural Drawings.
Fig. 2.3: Floor plan of Yale School of Arts and Architecture. - Nasar, L. Jack, Designing For Designers: Lessons Learned From Schools of Architecture.
Fig. 2.4: Floor Plan of Alvaro Siza School of Architecture. - Nasar, L. Jack, Designing For Designers: Lessons Learned From Schools of Architecture.
Fig. 2.5: Spatial analysis of Sydney School of Architecture Building.
Fig. 2.6: Sydney School studio overlooking central void.
Fig. 2.7: São Paulo School of Architecture Section. - Frampton, Kenneth, Guilherme Wisnik, João Vilanova Artigas.
Fig. 2.8: São Paulo School of Architecture ramp connection. - Frampton, Kenneth, Guilherme Wisnik, João Vilanova Artigas.
Fig. 2.9: Auckland School of Architecture Studio Space (1), Pathway (2), Mezzanine (3), Entrance (4).
Fig. 2.10: Spatial analysis of Auckland School of Architecture Building.
Fig. 2.11: Victoria School of Architecture Façade (1), Atrium (2). - http://www.victoria.ac.nz/architecture/about/news/2010-news.aspx.
Fig. 2.12: Sketch of Victoria School of Architecture Atrium.
Fig. 2.13: Spatial analysis of Victoria School of Architecture Building.
Fig. 2.14: Unitec School of Architecture Façade (1), Corridor as Exhibition Space (2), Corridor near Studios (3).
Fig. 2.15: Unitec School of Architecture Studio.
Fig. 2.16: Spatial analysis of Unitec School of Architecture Building.
Fig. 2.17: Telecom Place atrium and skybridges. - http://www.warrenandmahoney.com/en/portfolio/telecom-place-auckland/

Fig. 3.1: The desk critique.
Fig. 3.2: The Courtyard diagrammatic model.
Fig. 3.3: The Thoroughfare diagrammatic model.
Fig. 3.4: The Anchor points diagrammatic Model.

Fig. 4.1: Location diagram of all three sites.
Fig. 4.2: Karangahape Rd Site Plan.
Fig. 4.3: Anzac Avenue Site Plan.
Fig. 4.4: Mayoral Drive Site Plan.
Fig. 4.5 Night shot panorama of site (A).
Fig. 4.6: Beside the Town Hall (B).
Fig. 4.7: The Basement Bar (C).
Fig. 4.8: The rear service stairs (D).
Fig. 4.9: Location Legend.
Fig. 4.10: Historical Context Plan
Fig. 4.11: Circulation Site Plan
Fig. 4.12 Street Front Activity Site Plan.
Fig. 4.13: Potential Street Life Plan.
Fig. 4.14: Topographic Section.
Fig. 5.1: Sectional function schematic.
Fig. 5.2: Building Mass Modelling scale @ 1:1000.
Fig. 5.3: Building Mass Modelling scale @ 1:500.
Fig. 5.4: Elevation sketch.
Fig. 5.5: Analytical sketch of public paths.
Fig. 5.6: Analytical sketch of building mass.
Fig. 5.7: Experiment with form and scale.
Fig. 5.8: Massing model with corner as public space.
Fig. 5.9: Laneways between the old and new.
Fig. 5.10: Cantilevering form over pedestrian footpath.
Fig. 5.11: Shortcut from Queen Street.
Fig. 5.12: Schematic sketch of paths, massing and public spaces.
Fig. 5.13: Connection through the atrium.
Fig. 5.14: The secondary atrium in the studio wing.
Fig. 5.15: Circulation is focused in this atrium.
Fig. 5.16: The twist in the building beckons the pedestrians from Aotea Square.
Fig. 5.17: Variations of the Academic Block.
Fig. 5.18: The Atrium and the laneway.
Fig. 5.19: Functional distribution.
Fig. 5.20: The link in the sky.
Fig. 5.21: The studio space and crit space.
Fig. 5.22: Acknowledging the intersection.
Fig. 5.23: Concept sketches for the Academic Block.
Fig. 5.24: Schematic sketch of site layout.
Fig. 5.25: Studio process diagram.
Fig. 5.26: The digital center as a new destination.
Fig. 5.27: The digital center as the new focus.
Fig. 5.28: Ground floor.
Fig. 5.29: The laneways around the ‘pulpitum’.
Fig. 5.30: First floor.
Fig. 5.31: Second floor.
Fig. 5.32: Third floor.
Fig. 5.33: Fourth floor.
Fig. 5.34: Fifth Floor.
Fig. 5.35: Circulation within the Academic Block.
Fig. 5.36: Breakdown of circulation routes.
Fig. 5.37: Interlock between school and public.
Fig. 5.38: Ground Floor Plan.
Fig. 5.39: Laneway beside the workshop.
Fig. 5.40: Library foyer and entrance to lecture theatre.
Fig. 5.41: First Floor Plan.
Fig. 5.42: Corner of Mayoral Drive and Queen Street.
Fig. 5.43: Atrium of the Mayoral Drive entrance.
Fig. 5.44: Second floor plan.
Fig. 5.45: Greys Avenue façade.
Fig. 5.46: Third floor plan.
Fig. 5.47: Bird’s eye view of the academic block.
Fig. 5.48: Winding staircase leading up to public critique space.
Fig. 5.49: Looking towards studio wing from library.
Fig. 5.50: Looking down towards public critique area and main display screen.
Fig. 5.51: Fourth floor plan.
Fig. 5.52: Fifth floor plan.
Fig. 5.53: Six floor plan.

Fig. 6.1: View of Southern elevation and bridge underpass.

Fig. 9.1: Floor plan of the Baulakademie. - Nasar, L. Jack, Designing For Designers: Lessons Learned From Schools of Architecture.
Fig. 9.2: Compound layout of the Beaux-Art School. - Nasar, L. Jack, Designing For Designers: Lessons Learned From Schools of Architecture.
Fig. 9.3: Floor plan of the Bauhau. - Nasar, L. Jack, Designing For Designers: Lessons Learned From Schools of Architecture.
Fig. 9.4: Floor plan of Taliesin West. - Nasar, L. Jack, Designing For Designers: Lessons Learned From Schools of Architecture.
9. Appendix A
The courtyard type

The Courtyard described a condition where the building occupied the perimeter, leaving an enclosed central space, either indoor or outdoor, to connect the building. A classic example would be Karl Friedrich Schinkel’s Bauakademie built in 1836, now demolished. The courtyard was a popular choice for architecture schools as offered central space within the school for communal activities such as Critique, exhibition and school functions. But the stand-alone courtyard provides an isolated experience, described by Alexander’s pattern as too enclosed with no secondary spaces to connect to.30

The School of Architecture at University of Manitoba by Smith Carter Searle Architects in 1959 is another example. It has a centralised plan with an open courtyard and an exhibition space of similar size. There is a concourse that cuts through the building, providing access through both sides of the building. If this concourse is a shortcut route within an urban space, then the courtyards could easily become successful public spaces with the addition of a cafe in the corner. The plan of the upper floor showed large flexible studio spaces, but the plan has shown rigid classroom layout which reflects the learning environment of its time.

The Yale School of Art and Architecture designed by Paul Rudolph in 1963, it has been put into the workshop category but its planning resembles more like an interior courtyard with Ateliers. Its concept was to encourage interaction between the faculties by sandwiching the Architecture faculty between the Art faculties. The original design

30 Alexander, A Pattern Language, 562.
included two-storey studio spaces which made it easier for students to move around and learn from each other. Unfortunately later renovations have sealed the spaces into single floors, thus destroying the original intent, and this led to the fire set by students in 1969.

The Compound Type

The compound described a group of buildings with several outdoor spaces that connected them. The Beaux-Art school in 1816 is an old example of the compound type, and more recently in 1995, the Alvaro Siza’s School of architecture in Porto have also been placed in this category,\(^1\) the compound types consume more land area and are usually placed in suburban or rural settings. To a certain degree, it resembles the courtyard type. As illustrated by the Alvaro Siza’s school, the various buildings were still connected by a central space; in this case, the courtyard is much bigger and porous.

The breaking down of the building mass in the compound type allowed for physical breaks between different functions and the result is a more porous outdoor space. Take the Beaux-Art School for example, a cloister at the entrance housed the classrooms and the loggia building is dedicated to examinations. The palace building at the centre would house the study museum, library and ceremonial hall. The school was designed by Felix Duban, and it was based on his study of the Octavian Ruins which was also a school.\(^3\) His design was typical of the beaux-art

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\(^1\) Nasar, Preiser and Fisher, *Designing For Designers*, 44.

\(^3\) *Architecture II*, DVD. Directed by Richard Copans and Stan Neumann, (France: ARTE France, 2000).
style which was the composition of façades and plan, and the beaux-art pedagogy had a great influence on European architecture in the 19th century.

The courtyard type is favourable in urban contexts, and the courtyards within this category are very confined which suits tight spaces in the city. The compound type is more fitting for suburban and rural sites where it can sprawl into the landscape. The compound can exist as a series of courtyards, and the outdoor spaces are less confined.

**The Workshop Type**

The workshop type came from the Bauhaus school; the pedagogical principle behind it was to house multiple disciplines in one building, creating a cross-disciplinary relationship. The multiple disciplines mentioned here refer to a range of art and craft courses. In this category, the emphasis is on “making” and therefore treats architecture as a craft. The work spaces are designed to accommodate crafting activities rather than drawing on the drawing board like that of the Beaux-Art.

**The Atelier Type**

The Atelier type has been described by Fisher as the opposite of the workshop type, as it is supposed to be a space for professionals and students of only the architectural profession. The two Taliesins of Frank Lloyd Wright is of such a type, the studio is where the teaching and learning occurs and became the focus of architectural education.

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33 Nasar, Preiser and Fisher, *Designing For Designers*, 50.
34 Ibid, 54.
This type resembles the master-disciple relationship and is similar to the contemporary studio settings we have today, where a group of students are directed by one or more studio masters. The atelier offers a social environment for people within the architectural profession. Donald Schon would even say that the studio model is the ideal way of learning for disciplines other architecture as well. It is evident that a social aspect would benefit group learning in the atelier. The benefit of this social setting will be discussed in later chapters.

Summary

The categorisation is an admirable attempt by the authors, but the distinction between each category is not overly explicit as some schools can fall into more than one, especially the contemporary schools that use more hybrid pedagogical approaches. Even though the author suggests that the possible variations are endless, these categorisations formed a starting point in understanding the suitability of each type to their context and the pedagogical program within.

10. Appendix B
A **Pulpitumic School**

A School of Architecture to Project the Culture of Architecture into the consciousness of the public.

1. Site/Contextual Plan
2. Ground Plane Connection Diagram
3 & 4. Functional Organisation
5. School Areas
6. Public Areas
7. Visual Connections
8. Sectional Perspective S1.S1
Social Interstitial Spaces
9. Floor Plans

10. Section S2.S2.

1. Main Lecture Theatre
2. Secondary Lecture Theatre / Outdoor Amphitheatre
3. Workshop
4. Workshop Master Office
5. Digital Fabrication Workshop
6. Storeroom
7. Car Park

Ground Floor Plan
8. Exhibition Space
9. Material Storage for Digital Lab
10. Entrance from Underpass - Ramp leading up into Atrium
11. Main Atrium
12. School Help Desk
13. Cafeteria
14. Greys Avenue Entrance

First Floor Plan

15. Library Foyer
16. Public Critique Space
17. Display Area
18. Entrance to Upstairs Studio
19. 4th - 5th year Studio
20. Corner Entrance of Mayoral Drive and Greys Avenue
21. Mayoral Drive Entrance
22. Queen Street Entrance / Short-cut down to Basement Bar

Second Floor Plan

1:200
24. Library
25. Study Areas
26. Sky Bridge
27. Critique Ramp
28. 4th - 5th Year Studio
29. 1st - 3rd Year Studio
26. Sky Bridge
29. 1st - 3rd Year Studio
30. Staff Lounge
31. Staff Offices
32. Void

27. Critique Ramp
29. 1st - 3rd Year Studio
31. Staff Offices
11. Night view from Queen Street

12. Public Path through the Atrium
13. Street Culture Within the Laneway

14. Night View of Mayoral Drive Elevation and the Underpass