saved by the bell...

**A FEMINIST APPROACH TO
HIGH SCHOOL ARCHITECTURE**

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Architecture (Professional) at Victoria University of Wellington.

Note: All unreferenced images are produced by the author.

For mum & dad

Acknowledgments

Thank you to the participants in this research for trusting me with your stories.

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chapter 01

BACKGROUND 08

Introduction	10
Issue	12
Research Question & Hunch	14
Abstract	16
The Feminist Approach	18
Aims & Objectives	20
Positionality	22
Scope	24
Glossary	26
Methodology	28

chapter 02

THEORY 32

Policy	38
Pedagogy	50
Gender & Space	58
Feminist Practice	68

chapter 05

PIECE 3: INTERVENTIONS 130

Chapter structure	132
Precedent: Ant Farm	134
Precedent: Designers Speak (up)	136

CONTENTS

chapter 03

PIECE 1:

PROCESSES 78

Introduction	80
Precedent: muf	82
Visual Literature Review	84
Visual Workshop Planning	86
Workshop Material	88
Workshop Marketing	92
Workshop Planning	96
Thematic Analysis	102
Conclusion	108

chapter 04

PIECE 2:

SITES 110

Introduction	112
Precedent: John Berger	114
Method	116
Conclusion	126

chapter 06

PIECE 4:

SPECULATIONS 140

Chapter Structure	142
Programme Analysis	144
Precedent: Jennifer Bloomer	146
Communication	150
Concept Design:	
Bathrooms	154
Cosy Space	176
Corridors	188
Play Space	200
Developed Proposal:	
Site Analysis	224
Programme Analysis	244
Proposal	250
Conclusion	298

chapter 07

CONCLUSIONS 300

Discussions	302
Reflections	304
Conclusions	306
Further Research	307
Spreading the Word	308

01

02

03

04

05

06

07

chapter 01

BACKGROUND

Introduction	10
Issue	12
Research question & hunch	14
Abstract	16
The Feminist Approach	18
Aims & Objectives	20
Positionality	22
Scope	24
Glossary	26
Methodology	28

introduction

there's a problem we need to talk about...

The New Zealand youth demographic has one of the highest suicide rates in the OECD (SUPERU, 2016). Our country's young people are some of the most vulnerable and worst affected by symptoms of poor mental health. Our young people are deserving of our attention and energy and it is the intention of this research to better understand how the practice and profession of architecture can be actively supportive.

Mental health effecting our young people could be considered a 'wicked problem', one that is difficult, incomplete, incomprehensible and messy. It is full of unknowns and factors that need to be considered intersectionally.

Understanding the situations which result in young people experiencing symptoms of poor mental health is complicated and should not be simplified for the sake of comprehension for others. However, in this case, 'wicked' refers to a resistance of resolution rather than an impossibility of resolution. It is the intention of this research to understand two specific strands of the

problem to a level that shows respect and dignity for the subject. This research is concerned with identity formation and more specifically, how high school environments might be more allowing and encouraging of identities to form freely, therefore supporting healthy relationships with selves and others.

A key characteristic for overcoming and managing mental health is resilience. As outlined in the Prime Minister's Youth Mental Health Project report, "resilience involves being able to recover from difficulties or changes. Youth who are more resilient can cope more effectively with, or adapt to, stress and challenging life situations." (SUPERU, 2016). In support of current school initiatives, curriculum changes, and the work of school teachers and staff, this research endeavours to understand the position architecture takes in this puzzle and the support it could provide.

PROBLEM DIAGRAM

issue

A (very) brief history of Education in New Zealand

Compulsory education in New Zealand formally began with the arrival of Europeans in Aotearoa and followed a British model. All New Zealand children were to learn English, have Christian values instilled and be taught 'moral' habits to ensure the future of the colony (McGuinness Institute, 2016).

In the early 20th century, the model split into two types of education - *Special Schools* and *Technical High Schools*. Those students on the fortunate side of class, gender and cultural division, whose families had the financial capability, were increasingly encouraged to remain in formal education. Despite the desire for equitable access to education, the early twentieth century continued to differentiate between children thought capable enough to continue with further education and those who should be directed towards alternative pathways.

During the 20th century, any attempts to keep access to education equitable were stunted by economic demands for schools to produce suitably qualified individuals. Judging this level of qualification was largely constrained to the quality and adaptability of the teaching workforce of the time and success was publicly judged by the number of students passing exams (McGuinness Institute, 2016). From the 1980s, and largely through to today, education is considered as a part of the market economy and success is measured in terms of effectiveness and profitability. Measuring the success and therefore value of students by their examination results creates a metaphoric system whereby, "students became referred to as consumers, the government as an investor and schools as providers with vested interests." (McGuinness Institute, 2016).

This framework by which education in New Zealand still largely operates, means that students are primarily being prepared to become effective, productive and profitable members of the workforce rather than confident, healthy and resilient young adults.

The current government has a vested interest in redirecting our collective values related to education, away from productivity & profit and towards a focus on wellbeing. **While this shift is occurring through policy, the question arises, what role does the architecture of schools have in supporting student wellbeing?** There is a large number of students who do not fit into

neat categories regarding their needs, strengths, weaknesses, values and aspirations in education. These groups have historically been marginalised and largely unconsidered in how education models are designed and for whom they cater for. **If schooling has historically favoured the success of white, male students from upper-class families, then how can we start to deconstruct some of this inequity?** More specifically for this research, how can we design schools that enable and support a range of learners, making education more equitable?

**HOW MIGHT
ARCHITECTURE
CREATE MORE
EQUITABLE
LEARNING
ENVIRONMENTS
FOR HIGH SCHOOL
STUDENTS?**

Research Question:

hunch.

Through feminist spatial theory, processes and practice.

Feminist spatial practice favours co-learning, co-creating, collaboration and interdisciplinarity. Engaging participatory design processes and democratic communication strategies will place the end-user at the forefront of the design process. Challenging the traditional architect – client hierarchy aims to produce a less prescriptive process and therefore, better represent the diversity of potential users in the spatial outcomes. By designing *with* and *for* a better represented group of occupants, the spatial outcome is likely to be more equitably suited for a diverse range of people.

abstract

The big picture

The years spent as high school students are some of the most formative to the development of confidence in identity, and in preparing young people to be resilient adults. The school environments in which development occurs have an imperative role to play in providing space for identity to form freely and in providing equal opportunity for students to succeed. This research will focus on understanding how architecture might provide the space for identities to form freely and how processes and spatial outcomes could encourage this development to happen equitably.

This research engages feminist theory, processes and practices to increase spatial agency and identity agency for students. Encouraging the autonomy of students hopes to influence a sense of purpose and belonging to the space, and help students feel belonging within a community.

The theoretical position of this research is between feminist practice and gender and space. Supporting fields of research include pedagogy and policy. Whilst each existing field is independently expansive in scope, this research explores how these fields intersect, overlap and function when applied to the context of high school architecture.

A design-led methodology will inform four *Pieces* towards the completion of this research, each considering 'design' as the process, outcome and representation strategies. The first Piece, *Processes*, will involve the design and running of participatory workshops with students. The second Piece, *Sites*, will include photo analysis of existing schools to uncover what information existing architecture might be disseminating. The third Piece, *Interventions*, will be the design of actionable guides, posters, zines and 'take-aways' that share the findings of the research. The fourth and final Piece, *Speculations*, will include speculative concept designs that respond to the accumulated knowledge and provoke curiosity for the potential in this research area and way of practicing.

The outcomes of this research, the feminist architectural processes, designs and communication, aim to better understand how to facilitate participation in architecture for identity development and therefore help equalise opportunities in education.

hold up,

What is my Feminist Approach to architecture?

To avoid claiming to define the way to approach feminist architecture, the following diagram depicts my personal approach for this research.

my feminist approach

CHALLENGING HIERARCHIES

- asking, digging, probing, exploring
- listening, engaging, trusting people & process
- asking and investigating over predicting

DESIGN APPROACH

- **PROCESS over PRODUCT**
- architect as facilitator
- creating practical, impactful & actionable work
- create site and context specific work
- architecture as a framework or backdrop

DESIGN PRINCIPLES

- spatial agency in process and outcome
- representation in space
- accessible, democratic dissemination
- legible, democratic communication
- **FUN + PLAYFUL**

aims

What this thesis aims to do

1.

Gain understanding of how high school experience influences and informs identity development.

2.

Gain understanding of what might architecturally be embedded in high schools that is influencing performance of identity.

3.

Explore communication strategies to encourage disruption and challenging of hierarchies in architectural processes and existing school environments.

4.

Investigate how equitable learning environments might operate through a speculative design proposal.

objectives

How this thesis might do it

By developing focus group workshops and discussing the experiences with current students.

Through photo analysis of existing schools to uncover what messages might be architecturally embedded.

Through the development of DIY zines, guides, posters and other 'take-aways' for students to use at their own schools and architects to appropriate in their practices.

Through the design of a speculative design intervention proposal.

hunch.

encouraging

PARTICIPATION

in the process of creating

ARCHITECTURE

creates

ENGAGEMENT

with spaces and

COMMUNITY

creating a sense of

PURPOSE

and

BELONGING

strengthening

IDENTITY

creating

EMPOWERMENT

and establishing

CONFIDENCE

translating to

RESILIENCE.

PARTICIPATORY PROCESSES

GENDER & SPACE

positionality

Where am I coming from?

A researcher's positionality frames and influences the way they conduct their research. It shapes the values in the topic, methods chosen, the interpretation of results, the way processes & outcomes are critiqued and ultimately their beliefs about the value of the research.

Takacs states, **"To work toward a just world - a world where all have equal access to opportunity - means, as a start, opening up heart and mind to the perspectives of others. We must be able to hear each other and to respect and learn from what we hear. We must understand how we are positioned in relation to others - as dominant/subordinate, marginal/centre, empowered/powerless."** (2002, p. 169). Takacs is discussing the importance of understanding positionality to bring value to an individual's understanding of knowledge.

In *The Feminist Classroom*, Maher and Tetreault describe, **"the idea of positionality, in which people are defined not in terms of fixed identities, but by their location within shifting networks of relationships, which can be analysed and changed."** (2001, p. 164). Both quotes express the importance in finding understanding and value in your own position within research along with the value of those involved or affected.

I am a young woman of colour who was exposed to gender inequality and feminist ideas at a young age through both my family and my experience at school. I have experienced schools that have attempted to mould me into an archetypical 'successful person' and experiences where schools have allowed the freedom to develop and express individuality. They have made me acutely aware of the inequities in education and who the model is still designed to help succeed. Therefore, I have a specific empathy towards participants in this research, and towards literature that supports the validation of the experiences of marginalised people. While this can clearly be seen as a limitation and as an avenue to skew bias throughout the research, one could also argue the benefits of my

position in relation to this research. As someone previously affected by the issues raised, my ability to empathise with participants also allows an additional dimension of understanding and capacity to help acknowledge and articulate some of their feelings and experiences. Ultimately, this thesis is a response to feelings of frustration towards ostracization and inequality, fuelled by the contagious passion, inspiration and momentum of those who have made significant strides before me. I hope that this research, and my position in facilitating it, will give light to this subject and bring attention to those young people who are affected by inequality in education.

scope

What I'm doing, what I'm not.

Where possible, subjects in this thesis will be considered through an intersectional framework. Where single words have been used to describe the subjects of this research they will typically act as vessels and carry within them a multitude of complexities. While this does expand the scope, it also acknowledges and accepts the complexity of the issues being researched. For the context of this thesis it is felt necessary to embrace the messiness and wholeness of subjects rather than simplifying and limiting them, glossing over the complexity which brings the richness.

**how might architecture
create more equitable
learning environments for
high school students?**

This research...

	is concerned with	is not concerned with
ARCHITECTURE	<ul style="list-style-type: none"> • Process • Relationships • Participation • Fascilitation • Frameworks • Spatial • Systems • Opportunity 	<ul style="list-style-type: none"> • Poetics • Aesthetics • Beauty • Architecture as object • Drawing as artwork
EQUITALBE	<ul style="list-style-type: none"> • Inclusive • Diverse • Spatial agency • Frameworks 	<ul style="list-style-type: none"> • Fixing other people's problems • Dictating space • Predicting solutions
LEARNING ENVIRONMENTS	<ul style="list-style-type: none"> • Inbetween-space • Experiential • Emotional • Well-being • Messy • Temporal (lunchtime) • Social • Identity 	<ul style="list-style-type: none"> • classrooms • open-learning space • academic learning space • structured learning
HIGH SCHOOL STUDENTS	<ul style="list-style-type: none"> • Young adults: 12 - 18 	<ul style="list-style-type: none"> • Younger / older students • Board members • MoE • teachers / staff

glossary

The following definitions are written as propositions, explaining how each word has been interpreted for this research.

IDENTITY

For this research 'identity' will primarily be concerned with gender identity and constructs of femininity and masculinity. However, this could be considered the vessel that includes sexual, cultural, class and many other facets of identity.

EQUITABLE

Equitable spaces are spaces that are not only inclusive but supportive and welcoming of diversity. Equitable learning environments should create space for that diversity and support equal opportunities for everyone to succeed.

LEARNING SPACES

Learning spaces are considered in-between spaces where identity learning occurs, not necessarily the classrooms where academic learning occurs.

FEMINIST APPROACH

My 'feminist approach' is a framework of values to consider when designing processes and engaging in this research.

INCLUSION/DIVERSITY

Schools should be designed to support and actively include a diversity of learners.

SPACE / SPATIAL

Space is used as a word intending to expand architecture. Space includes the built environment, surrounding buildings, networks of people and other environmental factors.

AGENCY

Agency is used to describe people's ability to participate. Maximising agency is maximising the potential opportunities for people to engage and participate.

DESIGN/DESIGN-LED

Not just architectural object / building design but the design of processes, methodology, spaces, graphics, communication, approach – all through an iterative, critical lens.

methodology

Methodological Approach

The overarching methodological approach to this research will employ an Action Research framework while each 'Piece' within the overarching methodology will employ a design-led research approach. Action Research is concerned with designing and researching for specific social contexts by engaging the specificities of real-life people and situations and continually testing and reflecting (Groat & Wang, 2013). It is an approach that values participants equally and works actively to include, synthesize, evaluate and respond to information and design output. The process is both horizontal and vertical, meaning the process is not linear, lateral or chronological. Each Piece will be worked on simultaneously as each Piece is dependent on the outcomes of the other to inform its own.

research input

Piece ONE: PROCESSES

Piece one includes the design and implementation of participatory design and focus group workshops with students from three different contexts; a single sex girls' high school, boys' high school and first year university students. Workshops included focus group discussion and observation to uncover insights into how students view the construction of gender identity by high school environments. Workshops were rigorously designed and critiqued to ensure an equal and balanced exchange between myself and the participants and to ensure the workshop is accessible and approachable to all.

Piece TWO: SITES

Piece two involved visual analysis of what might be architecturally embedded within existing school environments that is influencing performance of gender. This experiment adopted Judith Butler's framework of gender performativity (Butler, 1999) seeking to understand how architecture might inform a performance of gender. Studies took place at the high schools where workshops from Piece 1 occurred. Photography was used followed by thorough analysis of the photo series to understand the physical architectural differences that may be associated with influencing different behavioural traits related to comfort, inclusion, diversity in space, representation and spatial power dynamics.

research output

Piece THREE:

INTERVENTIONS

Piece three is the communication of research findings from Piece 1, Piece 2 and Piece 4 throughout the thesis in legible, approachable and accessible formats. These take form of zines, guides, posters and booklets, all designed to be graphically approachable and printable at low-cost. Output primarily targeted current students, guiding them through ways of making their school spaces more equitable. Other output targeted architects and designers hoping to make accessible information on participatory design and ways of making their processes more equitable.

Piece FOUR:

SPECULATIONS

Piece 4 was the speculative concept design of various programmes around a high school, drawing from findings from previous exercises and predominantly from workshop discussions. This was followed with the design of a sited intervention proposal for a high school in Wellington. The design process primarily followed the NZIA design process discussed in this thesis until its limits began to appear. The proposal, and representation of it, intends to provoke a sense of curiosity and inspire speculation of how high schools could be more equitable. Design and drawing outputs hope to be playful and approachable through the use of colour, illustration and collage ensuring the proposal does not appear polished, final or complete and instead inviting critique and additional input.

the puzzle

BACKGROUND
SCOPING
POSITIONING

PIECE 1. PROCESSES

what do students think about
their schools and identity formation?

PIECE 2. SITES

how are our spaces informing
performance of gender?

OBJECTIVE
what?

Design methodologies specifically
suited for participatory design
workshops with students.

An objective approach to understanding
how a space might influence behaviour
and performance of gender.

METHOD
how?

theory

Feminist practices

Gender & Space

Participatory design processes

Feminist practices

Gender & Space

design

- 'How to' participatory design poster
- Student workshop planning
- Conduct workshops
- Thematic analysis

- Photoanalysis of case studies
- Photoanalysis of existing schools

IMPLICATION
why?

Ensuring those effected by the research are
included and giving an opportunity to contribute.
A measure to ensure an equitable process
whereby all parties gain.
Ensuring the process is specifically tailored to the
context to ensure maximum benefits and input.
Ensuring processes are respectful and not
patronising or manipulated.

Uncovering what physical design measures can
be taken to disrupt regulation of gender
performance and behaviour.
Create a set of criteria to inform the following
design stages.

methodology diagram

PIECE 3. INTERVENTIONS

what if we activate
what we have?

Design a collection of interventions and the corresponding 'guides' that could help students implement interventions / increase spatial agency in existing schools.

Feminist practices

Gender & Space

Spatial Agency

Pedagogy

Policy

PIECE 4. SPECULATION

what if we redefine how school
spaces work?

Speculate what the future of equitable,
education spaces look could look like.

Feminist practices

Gender & Space

Spatial Agency

Pedagogy

Policy

- Establish criteria based on Piece 1 & 2
- Designs for retrofitting
- How-to zine guides

- Concept design for various school spaces & interventions

Dissemination of legible and approachable spatial interventions and construction methods for students to retrofit existing schools to enhance their schools to be based on the established principles.

To invoke a sense of curiosity and inspiration for what schooling in the future could be.
A visual representation of schools with shifted values.

This methodology diagram depicts the process of research being both horizontal and vertical. Each piece of the puzzle is influenced by the other to build the final picture.

REFLECTION
EVALUATION
IMPLICATIONS
DISCUSSION

the conclusions

01

02

03

04

05

06

07

chapter 02

BACKGROUND

THEORY + CONTEXT

Chapter Structure

The theoretical position of this research is situated between fields of feminist practice, gender + space, pedagogy and policy. Each of these fields is expansive in scope but for the specific context of the research question, each field is imperative to include and for taking an intersectional, interdisciplinary approach. A brief overview of each field is followed by the literature review and discussion for each field. Each section includes conclusions that build upon the previous sections until the final section on Feminist Practice discusses all sections together.

position diagram

PRIMARY FIELDS

KEY AUTHORS
KEY IDEAS

SECONDARY FIELDS

KEY AUTHORS
KEY IDEAS

theoretical position

Part 1: POLICY

“The continuing agenda for educationalists is the critical and proactive engagement with both the theoretical and practical implications of ‘gender sensitive’ work. This engagement can only be useful when coupled with firm political commitment to transformative outcomes across all educational and related sites.”

(Ali, Benjamin, & Mauthner, 2004, p. 4).

An understanding of existing policy around what and how we teach is required to understand where the findings of this thesis might be limited in application and where they might be impactful. A literature review of the current policy which informs our education systems and school environments gives some context to the guidelines and values by which we design. The recommended design process from the New Zealand Institute of Architects (NZIA) has also briefly been reviewed to uncover the ways in which design processes could be more equitable. Architecture is political and in order to respond, react and influence active change, an understanding of the politics involved is essential.

Part 2: PEDAGOGY

“Instead of designing for, feminist pedagogies favour designing with. Instead of insisting on teacher-student hierarchies, feminist pedagogy favours mutuality and co-learning. Feminist pedagogy is not about a singular truth, but multiple and situated knowledges and truths. It values the soft, the tacit and the intangible. These are different values to those of traditional (male invented) pedagogy.”

(Schneider, 2013)

In order to redesign the spaces in which we learn, an understanding of the programme for those spaces and purpose of what we are teaching is required. Understanding the pedagogy and values by which we teach will then help inform an interdisciplinary approach to designing architectural outcomes.

Whilst Schneider discusses this in the context of architectural education, these philosophies can be applied to high school pedagogies. In order to deconstruct existing and outdated concepts of gender, which manifest in high school, not only must the spaces be reimagined, so too must the pedagogies and values by which we teach. Both pedagogy and school environments have a critical role to play in redefining concepts of gender identity.

Part 3:

GENDER + SPACE

“Our position, where we live and where we work, where we come from and where we are going, is important in understanding ourselves as human subjects. How people define their own spaces and experience them is important in constructing identities.”

(Rendell, 2000, p. 107)

Consideration and construction of gender is reliant on and related to environments and relationships. As gender is a constructed concept, to break down power dynamics, hierarchies and oppressions or disadvantages, this construct needs to be deconstructed and redefined. Gender alone cannot be reconsidered without reconsideration of our politics, economies, social structures and environments. This research will consider how spaces might inform constructions of gender and therefore how space can deconstruct or provide alternatives for diversity in identity to exist and develop. Theory on gender and space has informed the analysis of what programme we give space to in high school, who we give it to and how these spaces might be influencing the understanding, development and performance of gender identity.

Part 4:

FEMINIST PRACTICE

“Participatory research exemplifies one of the most radical and activist elements of feminist methodology by enlisting a community’s participation and collaboration in social change projects.”

(Gottfried, 1996, p. 10)

Feminist practice values mutual learning, collaboration, participation and equitable processes. In architectural practice, that translates to a process that is accessible and encouraging for people to engage with. This collaborative process seeks to create opportunities and unexpected learnings. Embracing diversity of thoughts and ideas, while trusting and empowering the participants, allows the process to be guided towards a meaningful and equitable result. Feminist practices value processes and relationships over architectural objects or outcomes.

THEORY + CONTEXT

PART #1

PART #2

PART #3

PART #4

POLICY 40

PEDAGOGY 52

GENDER + SPACE 60

FEMINIST PRACTICE 70

Policy

Introduction

The current New Zealand government has recognised that the model and values by which we guide decisions in education are no longer appropriate for the current social, political climate and wellbeing requirements of contemporary Aotearoa (Tomorrow's Schools Independent Taskforce, 2018). A major reform of education in New Zealand has commenced to re-evaluate how we could be best supporting young learners to become resilient adults.

This section will summarise and discuss three main documents published by the Ministry of Education; *The New Zealand Curriculum* (2007) which outlines the guiding values for English medium schools in developing their curriculum, the *Designing Schools in New Zealand* report (2015) which outlines the guidelines for school property design, and, *Our Schooling Futures: Stronger Together – Kōrero Mātauranga* (2018). The section finishes with a review and discussion of the NZIA's 7 clear Stages to the design process

(2019). This research seeks to discover how best architects and architecture might update the ways in which we design school environments to align our practices with the intentions of the new policy. It should be noted that review of relevant literature intends to report on the key points from each report (as relevant to this research) and discuss them in relation to each other rather than conducting a comprehensive review of each report.

This review of key policies and ministry appointed guidelines will ground the research within current realistic parameters and articulate the values guiding decisions, rules, and parameters related to education and education buildings. Following this with discussion of guidelines set by the NZIA will allow the potential opportunities for recommendations to be presented, not only in each policy separately, but in how they work together.

Ministry of Education: The New Zealand Curriculum

The New Zealand Curriculum is a statement of official policy to set the direction of student learning and guide schools as they develop their curriculum (Ministry of Education, 2007). Their vision is for young people to be;

- confident
- connected
- actively involved
- lifelong learners

Their principles for designing school curriculum include;

- high expectations
- The Treaty of Waitangi
- cultural diversity
- inclusion
- learning to learn
- community engagement
- coherence
- future focus

Their values when designing school curriculum include;

- excellence
- innovation
- diversity
- equity
- community
- ecological sustainability
- integrity
- respect

This vision and these values and principles appear to be in line with the hopes for this research, working towards equitable education. The more relevant information will be around how other policies support this vision through recommendations about educational environments.

Our Schooling Futures: Stronger Together – Kōrero Mātauranga Whiria Ngā Kura Tūātinini

In late 2018 the Ministry of Education employed an independent task force to evaluate the current educational systems in New Zealand and to provide recommendations for improvement and better alignment with the government’s current focus on wellbeing. The report titled, *Our Schooling Futures: Stronger Together - Kōrero Mātauranga*, is a comprehensive response, recommending a comprehensive restructuring of our current education model which the Ministry will then evaluate for feasibility. Published in November 2018, this report went through a process of public consultation and amendment before being submitted to the Ministry as a formal recommendation.

The taskforce identified a myriad of issues in our current education model and have proposed an entire restructuring, primarily through the governance of schools to distribute resources more equitably. The strongest driver for such a drastic recommendation and restructuring is noted to be a response to current data on wellbeing of our youth in New Zealand:

“...wellbeing data, such as the prevalence of bullying and self-harm among adolescents, tell us that there is an urgent need to collectively support schools to address complex community and societal challenges.” (Tomorrow’s Schools Independent Taskforce, 2018, p. 11)

The 8 key issues with the current education model that the report outlines are;

- 1. governance
- 2. schooling provision
- 3. competition and choice
- 4. disability and learning support
- 5. teaching
- 6. school leadership
- 7. school resourcing
- 8. central education agencies

Regarding governance, school boards are currently expected to manage things such as property and appointments of principals. The report recommends the introduction of Education Hubs that should have a Ministerial appointed

governance board with at least half of the positions filled by practising educators, and other positions from local iwi and community stakeholders. These hubs intend to make experts accessible for managing and governing schools, relieving the load on school boards and staff.

The proposed system, with the integration of 'Education hubs' intends to create a learning ecosystem drawing from both te ao Māori and te ao Pākehā. "It is designed for learning and it is a system that keeps learning so that it is continually improving. It is a system that provides good learning for everyone." (Tomorrow's Schools Independent Taskforce, 2018, p. 34). One of the main criticisms of this proposal is the risk that school boards, that have experience and knowledge of their localised

communities, may no longer have enough say in the management of their own schools. Although, as noted earlier, the driver of this proposal is equity, and Education Hubs could ensure schools with less access to required expert knowledge would be better supported, or even equally supported, as those schools with parents with expert knowledge (Tomorrow's Schools Independent Taskforce, 2018). The Education Hubs present an opportunity to flatten hierarchies in management of schools. The hope with this research is to follow suit through the design and management of school buildings by engaging in participatory design methodologies.

Ministry of Education:

Designing Schools in New Zealand: Requirements & Guidelines

The *Designing Schools Report* forms part of the Ministry of Education's national guidelines for property design and outlines requirements that are mandatory. These requirements and guidelines have been designed to ensure that the schools of New Zealand are fit for purpose and flexible enough to be adapted to meet future needs. The report places significant weighting on the financial longevity of the properties and encourages designers to take a whole life approach to cost and durability in order to demonstrate that taxpayers are receiving value for money (Ministry of Education, 2015).

The report states that the design for education buildings must be:

- **Efficient:** in form and operations, high quality, regular in shape and efficient to construct and maintain.
- **Durable:** resistant to wear and tear, not requiring extensive maintenance
- **Cost effective:** over the whole life of the building, while providing the high levels of amenity required of flexible learning and support space.

Calling on a growing body of research, some essential principles for designing effective learning spaces outlined in the report include; **inclusion, agency, evidence-based practice and collaboration.** A description of these principles is located in the appendix 01. The design principles state that school spaces should be; flexible, sustainable, creative, supportive and connected. It is important to note, that whilst these principles are directed towards creating buildings to be fit for learning, they are only considered optional guiding principles – as distinct from the mandatory requirements outlined earlier in the report. The distinction between requirements and guidelines clearly articulates our guiding values in school design; capital investment over fit-for purpose learning environments. The privileging of financial directives, and material resilience for the design of our educational spaces, over concern with the wellbeing, agency, and personal growth of their users, indicates a potential disjunction between what is intended by both the *Curriculum*, the *Stronger Together* report, and the *Designing Schools* document.

The NZIA's Design Process

Published on the NZIA's website is a guideline of the design process potential clients should expect when engaging an architect. The seven clear stages include:

1. Predesign
2. Concept design
3. Developed design
4. Detailed design
5. Contract administration
6. Project observation
7. Completion

Zealand Institute of Architects, 2019). It is the argument of this research that by reconsidering the architectural professions guiding processes, or at the very least expanding them to be more flexible and responsive to the context and brief, architects might be able to create buildings that are more responsive to their social, cultural and environmental contexts and contribute support towards larger societal issues such as youth wellbeing and equity in education.

The first three stages are of most importance to this research – which seeks to deal with the parts that might be considered missing in the early stages of the process. Through definitions of each of these stages, which can be found in appendix 02, there appears to be an absence of a research component integrated into, or informing the design process. This is particularly evident through the *Predesign* stage as the description makes no reference to research into building use, inhabitants, history or cultural significance of land, or attempts to involve the voices of those who the building will be representing (New

Conclusion

Through reviewing relevant literature both from ministerial policies to guiding architectural protocols, the rules and values by which we design schooling in New Zealand become apparent. From a governmental view, education buildings are still largely considered more as public capital investments rather than opportunities for social investments. Although a shift is currently in progress, architecture of schools and the importance of school environments beyond their building efficiency, is still being overlooked. Additionally, our architectural process outline neglects to encourage meaningful engagement at the outset. In order to design a well suited, positively impactful and socially successful building the architect must engage through thorough research and relationship building (Awan, Schneider, & Till, 2011). The current process outline appears to encourage a fixation on the

building as product or outcome rather than as opportunity to learn and contribute. The process outline also neglects the part of the process in which reflection of the learnings and process is shared for future use. It is through this sharing of learning that architecture as a profession has the potential to collate knowledge which could then be presented back to inform policy makers. There appears to be missed opportunities for architects to contribute to our knowledge and understanding of the effects of space within the three reviewed documents, but potentially most applicably on the Designing Schools report. This research takes the position that in order for architecture to contribute towards creating more equitable environments, architects must challenge hierarchies embedded within our standard processes and be actively contributing both on the ground with communities, and at government level in informing policy.

THEORY + CONTEXT

PART #1

PART #2

PART #3

PART #4

POLICY	40
PEDAGOGY	52
GENDER + SPACE	60
FEMINIST PRACTICE	70

Pedagogy

Introduction

The current model of education by which our curriculums are largely based, has a primary focus on preparing students to enter tertiary education before joining the workforce. It is commonly known that our future workforce is largely unpredictable and therefore a skills-based approach to educating has become redundant (McGuinness Institute, 2016). Instead, it is imperative that schools focus on preparing students to be confident, innovative learners, and ultimately, resilient young adults to face the uncertainties of their futures.

In reconceptualising this model, we must also reconceptualise the pedagogies, values and philosophies by which we teach and of course, the architecture in which this occurs. If architecture is considered a tool to enhance learning, then an opportunity arises to imagine spaces that not only better support a more diverse population of learners, but also encourage the exploration of that diversity. **Ultimately, school buildings should aspire to inspire and engage everyone that comes into contact with them** (Leiringer & Cardellino, 2011).

The opportunity also extends, at a broader scale, to redefine what we value in education and the value we place on our young adults. To capture the voices and better understand the perspectives of the students using their spaces is rare in education and in architecture. Participatory processes should be adopted in the design of schools both to better represent the students and to foster a greater level of connection between students and their space (Dudek, 1999).

This section will primarily focus on the pedagogies of place and space, as methods of understanding power dynamics within space, the political nature of space and how participatory processes could be a way of challenging hierarchies. The intention is to uncover the ways in which different pedagogies and frameworks for considering space might be used to highlight spatial inequities and provide alternatives for creating more equitable space.

Place and space as pedagogical tools

The relationship between place, space and time is a feminist framework that can be used to help understand societal and historical structures of power. Borrowing from feminist geographic understandings of place and space, this framework brings attention to the political nature of our built environment and the importance of spatial qualities, design and architecture in creating equitable space. It is through our embodied spatial and temporal experience in place that we discover and define, at least in part, our identities. Carvey & Petit in their article, *A Critical Pedagogy of Place*, discuss how places and space can be powerful pedagogical tools to enhance senses and emotions. They discuss the ability for space, through the engagement of senses and emotions, to develop a deeper appreciation of how spatialized power dynamics have the ability to influence behaviours of occupants and, at a larger scale, their identities. Their argument focuses on the term, “critical pedagogy of place,” and the paper endeavours to make localised structures

of power visible, demonstrate their connections to wider frames of domination, and examine the effects of power to disrupt oppression and inequality. They state, **“Place, in short, manifests a way of knowing and places are often objects of power created to further particular forms of domination based on gender, sexuality, race, age, class and physical ability.”** (Carvey & Petit, 2012, p. 102). Places within high schools have the potential to be formative of identity through the influence of spaces on the behaviour of students. Places can be inclusive or exclusive, welcoming or inapproachable, based on a range of spatial qualities and configurations – these in part are what construct and embed the power dynamics. Places and spaces have the ability to tell people where they do and do not belong, who they belong with and ultimately, their position within these dynamics. It is the intention of this research to implement design processes informed by this understanding, and therefore challenge these hierarchies through spatial outcomes.

The politics of school spaces

The ability of place and space as a pedagogical tool to awaken students to structures of power hierarchy, becomes critical in the context of school buildings. Felicity Armstrong in her paper, *Inclusion, curriculum and the struggle for space in school*, discusses the politics of space and the importance of this in the contexts of schools (1999). How schools are spatially planned and organised highlights the value structures and generates and sustains differences and exclusions. The paper highlights:

“the ways space is used in education to produce and reproduce particular power relationships between groups in society, sustaining and reworking old differences and inequalities and supporting the emergence of new ones. It is concerned with physical, cultural and social space, and central to this concern is a consideration of the space which human bodies occupy and way it is allocated and used around people.” (Armstrong, 1999, p. 76).

Space is a social product, derived from power relations internal and external to the immediate context. Armstrong recalls the work of Henri Lefebvre to describe the politics of space:

“Henri Lefebvre (1972, 1991) described the productive and reproductive functions of the appropriation and allocation of space through the identification of place, function and social purpose of particular spaces. Space, he argued, has been created, modelled from conditions, both natural and historical, but always political. Space is political and ideological because it is a social product, derived from power relations in society and political struggle. The repartition of space into areas, social arenas and sites is not ‘innocent’, not natural, nor neutral, but reflects these social relations and political struggles.” (Armstrong, 1999, p. 79).

School spaces hold an opportunity to bring attention to the power hierarchies reflected in students’ environments, and also to disrupt and challenge them. Most prominently, the social spaces, the spaces where the interaction occurs and identities form, are the spaces where these inequities are most obvious and will be a key site for this research.

Participatory practices for school design

One of the major hierarchies in spatial production which is so accessibly challenged, is the role of the architect and the design processes they utilise. Making isolated decisions around how space is allocated and configured inherently places the architect in a position of power; dictation or predicting the resulting social dynamics. Mark Dudek is a practitioner, author and advocate for participatory processes in the design of schools. He states:

“Effective architects draw on their own experience of education and coordinate their ideas with the end users throughout the design process. Extensive consultation culminates in the form of friendship between architects, school clients, and educationalists, which helps bridge the knowledge gap. Effective communication lies at the heart of this process with design days involving the school community followed up by consultation sessions to make new proposals more tailored towards the needs of the end users.” (Dudek, 1999, p. 73).

Not only does a participatory process typically lead to more successful spaces, it gives voice to those occupants who otherwise lack agency in their spaces. The youth demographic is one largely excluded from conversation relating to their spatial position along a spectrum of domestic through to schools and urban environments. While domestic spaces are typically under the control of parents, and urban environments largely neglect young people, schools pose an opportunity not only to allow young people some ownership but in doing so, disrupt hierarchies and power imbalances.

Conclusion

Considering space as a tool that can enhance learning brings an opportunity to ensure our environments are supportive of a range of learners as a way of encouraging embracement of diversity and individuality. In understanding identity, pedagogies of place and space can be used as tools for uncovering historical and social power dynamics that can be understood through our environments. This framework values the experiences, senses and feelings of places that influence behaviours and therefore identities. When we consider space as a social product derived from power relations, high school spaces hold an opportunity to awaken young people's awareness of their positions within society and

consequently grant them the opportunity to challenge it. Young people are a demographic who are frequently excluded from decision making processes related to education and architecture. By opening up equitable participatory processes in the design of school buildings, students have an opportunity to inform the spaces which they occupy, feel represented in them and a sense of pride and value, but can also begin to understand the hierarchies embedded within architectural processes and outcomes.

THEORY + CONTEXT

PART #1

PART #2

PART #3

PART #4

POLICY	40
PEDAGOGY	52
GENDER + SPACE	60
FEMINIST PRACTICE	70

Gender & Space

Introduction

Discussion around gender in architecture drew attention in the 1970s as second wave feminism gained momentum in mainstream discussion. During the 1990s, this field of research began to gain credibility and in 1999, through the publishing of a collection of essays, the subject's position in academia was established formally documenting the discussion around feminism and architecture (Rendell, 2018). The book was titled, *Gender Space Architecture*, and was edited by Jane Rendell, Barbara Penner and Iain Border.

Generally speaking, concerns were growing about the male-dominated architecture profession and the singularity of perspective for a discipline that was claiming to be for the good of society. The man-made profession operated within man-made processes and value systems and led to man-made environments typically best suited for men to succeed. It was discovered that the singularity in thought, opinion, modes of practicing and researching, were not suitable for diverse populations of people.

As our populations become more diverse, so too did the people that operate within the architecture

profession. However, diversity within the discipline does not necessarily translate to diversity in *how* the discipline operates. The architectural profession, the processes used, the pedagogies by which it is taught are still largely set in male-invented traditions of practice. While there are a multitude of ways for working, values which drive them and ways of learning and thinking about architecture, these are yet to reach mainstream practice.

This section will look to the theoretical field of gender in architecture to consider; the relationship between body and space, alternate modes of producing space and marginality and interdisciplinarity as opportunity.

The consideration and review of gender in the production and appropriation of space, becomes of particular relevance when considering the need for our schools to be reflective and inclusive of diversity in creating equitable environments. Perhaps more relevantly, the consideration of gender in space directly relates to the influence our spaces have in shaping identity.

Body, Space and Identity

In order to achieve any form of gender equality, the ways in which we define and consider gender and identity must first be radically reconceptualised. Elizabeth Grosz has been a leading voice in discussing the consideration of gender of bodies. Grosz identifies that in order for our gender and bodies to be reconsidered, so too must our environment and spatio-temporal locations (Grosz, Space, Time and Bodies, 1995). Grosz explains,

“The exploration of conceptions of space and time as necessary correlates of the exploration of corporeality. The two sets of interests are defined in reciprocal terms, for bodies are always understood within a spatial and temporal context, and space and time remain conceivable only insofar as corporeality provides the basis for our perception and representation of them.” (Grosz, Space, Time and Bodies, 1995, p. 84).

Grosz here is identifying the critical role our environments play in decoding and challenging the ways we consider how bodies are gendered. In a much broader sense, our environments and our position in time, frames the ways in which we shape and perceive our identities.

However, Grosz goes on to explain the reciprocal relationship each factor has, and the need for all agents to be active in reshaping the restrictions of our current conceptions of gender, **“the ways in which the body is physically, socially, sexually, and discursively or representationally produced, and the ways, in turn, bodies re-inscribe and project themselves onto their socio-cultural environments so that this environment both produces and reflects the form and interest of the body”** (Grosz, Bodies-Cities, 1992, p. 242). Reciprocally the body is a reflection of social-cultural environments as are our environments a reflection of our bodies.

Jane Rendell further discusses the relationship between body and space and the influence each has on forming the other, **“Our position, where we live and where we work, where we come from and where we are going, is important in understanding ourselves as human subjects. How people define their own spaces and experience them is important in constructing identities.”** (Rendell & Penner Iain Borden, 2002, p. 17). This creates a particular importance when considered in the context of how spaces are

defined, who creates the spaces and the level of agency occupants have over influencing their spaces. Rendell furthers the discussion by framing the point with consideration of gender identity, **“Space is also important in the construction of the female subject and gendered subjectivity and identity. The role of place in gender politics is important in determining relations between knowledge, positions and vision.”** (Rendell & Penner Iain Borden, 2002, p. 107). Rendell here is suggesting that those historically marginalised identities require even more agency in both their environment and identity.

Brought to the context of young people whose identities are beginning to establish themselves during high school, this concept becomes of particular importance. The role their environment plays in shaping their identities and in fostering the social dynamics which too inform identity, is of great importance; being anywhere along the scale of oppressive (prescriptive) to liberating (freeing).

Modes of Producing Space: from Theory to Practice

Architectural discourse concerned with politics, power structures and hierarchies, particularly in feminist discourse has traditionally occupied a position in academia and primarily taken a theoretical approach. This has however, been challenged in the past, and contemporary discourse of gender and space is more concerned with process and practice as a mode of researching and learning.

Henri Lefebvre most prominently stated,

“The formal relationships which allow separate actions to form a coherent whole cannot be detached from the material preconditions of individual and collective activity... The rationality of space, according to this analysis, is not the outcome of a quality or property of human action in general, or human labor as such, of ‘man’, or of social organization. On the contrary, it is itself the origin and source – not distantly but immediately, or rather inherently – of the rationality of activity; an origin which is concealed by, yet at the same time implicit in, the inevitable empiricism of those who use their hands and tools, who adjust and combine their gestures and direct their energies as a function of specific task.” (Lefebvre, 1991, p. 72)

Lefebvre here is emphasising the importance of the collective in the act of constructing space and the learning implications embedded within the task. In discussion of Lefebvre’s text, Rendell, explains how this approach promotes a shift of value in the production of space. Through a collective approach to constructing space, the value has potential to shift from the built outcome, to the representation of the space, the process of making or the lived experienced of occupying the space. Rendell explains, **“Lefebvre suggests that the social production of space works through three different, yet interactive processes: ‘spatial practice’ (material or functional space), ‘representations of space’ (space as a codified language), and ‘representational space’ (the lived everyday experience of space).”** (Rendell & Penner Iain Borden, 2002, p. 103). This consolidates the shift to learning through doing and all of the very human experiences and understandings of this process. This value shift becomes particularly important through shifting the value towards the process of designing and constructing and on the personal lived experiences of those inhabiting the space.

Rendell, being a leading voice in this discourse since its conception, provides a unique insight of reflection on the subject as it has evolved over the past few decades. In a more recent paper Rendell writes, “Through the course of the 1990s feminist research in architecture itself shifted understandings of the role of theory in architecture, from an early position where theory tended to be generated from inside architecture and operate as a form of ‘how-to-do-it’ or design prescription, to a later position in which the theoretical tools came from outside architecture, from critical theory, and offered possibilities for the critique of design methodologies from intellectual positions generated elsewhere, connecting architecture not only to production, but also to reproduction through representation, consumption, appropriation and occupation.” (Rendell, 2011, p. 18). Following this, Rendell confirms the position of gender and architecture as a subject to be rooted in the practice of architecture, “The current academic discussion predominantly focuses on practice-led research to produce understandings of practice as process. Rendell explains that this, “occurs

not only through the design of buildings, but through the activities of using, occupying and experiencing them and through the various modes of writing and imagining used to describe, analyse and interrogate space.” (Rendell, 2018). Moving into a practice-led approach to research for this field opens up opportunity, specifically for those people working in the margins of the discipline, for collaboration, interdisciplinary knowledge and action.

Marginality & Interdisciplinarity as Opportunity

It is still common for women and people in minority groups to largely occupy the perimeter, boundaries and margins of the architectural discipline. This is a site for opportunity. Bell hooks writes extensively of the margin as a site of tension, possibility and resistance. Considering the margin in the context of colonial education hooks writes,

“This is an intervention. A message from that space in the margin that is a site of creativity and power, that inclusive spaces where we recover ourselves, where we move in solidarity to erase the category colonized/colonizer. Marginality as site of resistance. Enter that space. Let us meet there. Enter that space. We greet you as liberators.” (hooks, 2002, p. 209).

If we consider the centre of architecture to be a site grounded in history and tradition, it can be understood that this site is reserved for those who fit the demographic by which this discipline has been dominated. Considering the centre as a place of near perfection or purity, those on the margin are then considered the ‘others,’ allowed in the circle but not quite the right fit for the centre. Hooks describes these margins as the space for movement, unknowns and exploration and

without entirely romanticising this position, the site for opportunity;

“Though incomplete, these statements identify marginality as much more than a site of deprivation; in fact I was saying just the opposite, that it is also the site of radical possibility, a space of resistance...I was not speaking of a marginality one wishes to lose – to give up or surrender as part of moving into the centre – but rather of a site one stays in, clings to even, because it nourishes one’s capacity to resist. It offers to one the possibility of radical perspective from which to see and create, to imagine alternatives, new worlds.” (hooks, 2002, p. 209).

This margin affords interdisciplinary frameworks and ideas, welcomes alternate modes of operating and holds stories, experiences and histories from which to draw upon when researching. This site is one of richness, complexity and diversity and holds the potential for the kinds of intersectional and interdisciplinary thinking required to address some of the social, political and environmental challenges and issues we face today.

Conclusion

In order to achieve any sense of gender equality, we must first reconceptualise the way gender is constructed and considered. If we consider gender, and concurrently identity, to be a reflection of our position in space and time, then architecture has a position to play in disrupting some of the embedded behavioural influences that inform people's identities. In high school, young people begin to experiment, form and establish their identities, and those spaces need to be welcoming of this exploration and more importantly, non-prescriptive or restrictive. Research value has been placed on the experience of participation in processes and in the potential experiences of occupation post-construction. More specifically, this research values the voices of young people

who so typically are marginalised in design of the built environment. These theoretical frameworks have led to the notion that those involved in the production of the space have agency in decision making and a greater sense of representation and pride through the process. To strengthen this notion, it is imperative that a diversity of people, ideas and values are equally included and respected throughout the processes in order for that space to reflect and welcome that diversity.

THEORY + CONTEXT

PART #1

PART #2

PART #3

PART #4

POLICY	40
PEDAGOGY	52
GENDER + SPACE	60
FEMINIST PRACTICE	70

Feminist Practice

Introduction

Feminist practice is a mode of working or practicing architecture that has typically operated in the margins of the discipline and challenges the status quo. Feminism at its core is about social, political and economic equality for the sexes and the following essay will argue that these ideologies and theories can and should influence architectural processes to similarly strive for equality. Practices such as, Matrix Feminist Design Collective, from the 1970s/80s were a socialist collective offering alternative to the dominant, capitalist versions of building production. Following this, practices such as, FAT, Fluid, and most notably, muf, of the 1990s introduced collective ways of working as demonstrated through the choice of non-proper nouns as practice titles. These practices identified power hierarchies not only within practice structure but within design processes, and challenged this with collaboration and participatory processes. Recently, there has been a sharp increase of explicitly feminist practices each approaching the subject through an intersectional framework. Practices and activist collectives such as ArchiteXX, Parlour and

FATALE each working to bridge the gap between academia and the profession to disrupt standard forms of working. Another is MYCKET, an art and architecture collective focusing on practice led research through intersectional frameworks such as pro-queer and anti-racist theory (Rendell, 2018). These practices are only a selection of those concerned with greater social and political issues, and the position of architecture as a discipline to engage with them.

The most recent wave of feminism is often titled either, *Fourth Wave Feminism*, *Intersectional Feminism* or simply *Intersectionality*. The phrase was coined by Kimberlé Crenshaw in 1989, first as a legal term and later becoming a phenomenon or framework for how to consider a multitude of complex social issues facing people today. The term Intersectionality is used to consider how race, class, gender, sexuality and any other special characteristics overlap, intersect and multiply to result in a complexity of social justice and human rights issues (Crenshaw, 1998). At the crux of this concept, importance is given

to the complexity and the multiplying effect of oppressions or marginal positions. To consider an issue or situation intersectionally, is to consider all of the factors at play and how they interact. It is to consider the lived experience of people from different backgrounds and to consider the ways they encounter the world as previously discussed in the *Marginality* section above. This framework will be appropriated for this thesis as the subject matter being researched requires an intersectional lens to make impactful findings. Where concepts such as 'identity' are being considered, so too are variables of gender, race, ethnicity, culture, sexuality, ability etc. When approaching issues of power and hierarchy in space, the complexity of the people occupying the space must be considered in its entirety where possible, and only simplified where necessary.

The following section will look to precedents, theories and practices to uncover alternative modes of approaching architecture and research. The following ideas, philosophies and definitions will greatly influence the approach adopted in this thesis.

The Shift

The book and online database, *Spatial Agency: Other Ways of Doing Architecture* by Nishat Awan, Tatjana Schneider and Jeremy Till, has been a key influence in the processes and approach to architecture for this research. The book opens with an analysis of the etymology and definitions of the words '*Alternative Architectural Practice*' and their justification of the choice of *Spatial Agency* as the book title instead. This essentially defines the approach to architecture they set to discuss. The three main shifts most applicable to this research include:

- 'Architecture' to 'Spatial'
- Static to Temporal
- Singular to Collaborative

As described in the introduction, **"Spatial does not so much replace architectural as a term, but it radically expands it."** (Awan, Schneider, & Till, 2011, p. 28). This approach is key to consider moving forward. It is not simply about the replacement or rejection of ideas and terms, it is

about expanding them to create space inclusive of the complexities of diversity. Spatial here, and in this research, refers to much more than buildings. It is the physical and social boundaries we inhabit, and spatial practice is about manipulating these parameters.

The second key shift to consider is one away from a static architecture and instead toward a temporal or dynamic:

"This dynamic inevitably shifts the focus of spatial attention away from the static objects of display that constitute the foreground of so much architectural production and moves it onto the continuous cycle of spatial production, and to all the people and processes that go into it. The dynamic, and hence temporal, nature of space means that spatial production must be understood as part of an evolving sequence, with no fixed start or finish, and that multiple actors contribute at various stages." (Awan, Schneider, & Till, 2011, p. 32).

Considering space as something constantly in flux again opens an array of opportunities. This means shifting from the obsession of completed buildings as objects to be occupied; static and finished. Allowing flexibility in space and welcoming the changing nature of architecture as a temporal framework can allow spaces and those interacting with them to thrive. Each interaction, reconfiguration or appropriation of space gives life to the architecture through the dynamic relationship with its user.

Dynamic space inherently brings with it the opportunity for social space; collaborative and not fixed to a point of completion. This collaboration in the designing, making and using of space creates opportunity for inclusion through participation however, as discussed earlier, space becomes political. As outlined in *Spatial Agency*, “**social space is intractably political space, in so much as people live out their lives in this space, and so one has to be continuously alert to the effects of that space on those lives.**” (Awan, Schneider, & Till, 2011, p. 57). Therefore, it becomes the role of

the architect to best design these processes and frameworks to work equitably, “**Every line on an architectural drawing should be sensed as the anticipation of a future social relationship, and not merely as a harbinger of aesthetics or as an instruction to a contractor. They also point to the possibility of achieving transformation in manners beyond the drawing of lines.**” (Awan, Schneider, & Till, 2011, p. 58).

Spatial Agency for Identity Agency

If we have established that space is political and that space can influence behaviour and identity performance, then it becomes necessary to democratise space through spatial agency. Spatial agency is about the ways in which space can create frameworks for people to appropriate and participate in; **“Agency is traditionally held in a dialect pairing with structure. Agency is described as the ability of the individual to act independently of the constraining structures of society; structure is seen as the way that society is organized.”** (Awan, Schneider, & Till, 2011, p. 31).

Spatial agency is about disrupting power dynamics and hierarchies in the process and outcome of architecture by allowing and designing for the complexity of how people interact with space. Through this framework, and as mentioned earlier, it is not about rejection of architects or more generally speaking, professional knowledge, it is about reconceptualising this role to more appropriately approach social problems facing us today. As outlined by the spatial agency authors,

“Of course, professionals are involved in the process, but social space explicitly acknowledges the contribution of others, and with this dismisses the notion of expert authorship that the professions still cling to.” (Awan, Schneider, & Till, 2011, p. 43). By allowing flexibility for and inviting people to appropriate space to have it better suit their spatial and personal requirements along a time scale, the space becomes an agent in actively allowing people to claim a position. However, with this comes a responsibility to do so equitably and for the space to be inclusive and accommodating of diversity. Spatial agency is a tool for combatting some of the previously discussed issues around the politics of space and the power dynamics / hierarchies embedded within the processes and history of the profession.

Modes of Operating

In a more recent article, Jane Rendell reflects on the history of feminist practice in architecture, and the shift from theoretical crossings of gender and architecture to a feminist approach to critical spatial practice. Through evaluation of the practices, processes and approaches of notable contributors, Rendell summarises the five most prominent modes of operating, **“I suggest that collectivity, subjectivity, alterity, performativity and materiality highlight modes of operation that feature strongly in a predominantly feminist mode of critical spatial practice.”** (Rendell, 2018).

In a discussion of Jennifer Bloomer and Liz Diller’s work, Rendell outlines some of the shifts that have occurred in feminist practice leading to her five modes of operating:

“Their work suggests new modes of enquiry and action, which have since been developed through current endeavours, moving from providing a gendered analysis of architecture and its multiple forms of representation, to the production of work inside and outside the academy where subjects, selves and spaces are understood to be performed and constructed rather than simply represented, and where forms

of action – in the pedagogical and professional environment – are prioritised, both to challenge sexism and also to engender more equitable conditions of work.” (Rendell, 2018).

This shift, speaking generally, from concern with representation to the value in production and process can be considered a direct response to shifting social and political global climates which demand active and productive challenging and reaction.

These five modes of operation will be appropriated as tools, and adapted for the context of this research. Through paraphrasing Rendell’s words, definitions have been adapted and constructed to align with ‘my feminist approach’ to spatial research and practice.

- **Collectivity:** Considers the action of the design process not as an activity that leads to a product, but as a collaborative process in which the outcomes themselves are located.
- **Subjectivity:** Considers identity politics through position, situation and location. An intersectional framework through which diversity of thought and individuality is welcomed.
- **Alterity:** Practices which seek to change, challenge, transform or alter the standard. Appreciation for otherness and related structures and systems of oppression, discrimination or domination.
- **Performativity:** the performance or action of the work, theory or practice. The intertwining of activism in practice and pedagogy. The “what does it do?” of the work in response to an issue.
- **Materiality:** Material or matter not only in the social or economic context for architecture, but an active ingredient in the process of making architecture. A consideration for what is taken or used and a level of care which maximises the environmental potential of the material.

It is important to acknowledge that this toolkit of modes or strategies will be organised by importance based on relevance to the research and subject matter being researched. For the scope of this thesis, it is not possible to treat each mode with equal importance, neither would it be clear as an approach.

Conclusion

It is important to disclaim, in the theme of the subject, that the definitions, ideas and interpretations discussed in this section are my own. It is my interpretation of the essence of feminist practice, which fuels the desire for equality in our environments, which is at the heart of this thesis. We live in a world designed by men and tacitly for men, and it is the aim of these feminist practitioners, actively working in 'alternate' modes for 'alternate' people (those who are not the 'default male'), to provide alternate spatial opportunities (Perez, 2019). This research will engage with existing methods and modes of feminist practice which will be adapted and moulded to the specific context of this research and be titled “*a* feminist approach to architecture”.

01

02

03

04

05

06

07

chapter 03

PIECE 1:

PROCESSES

“Participatory research exemplifies one of the most radical and activist elements of feminist methodology by enlisting a community’s participation and collaboration in social change projects.”

- **Heidi Gottfried, 1996**

processes

How do students, current and recent, think their high school spaces influenced the formation of their identities?

Piece 1 includes designing and conducting participatory workshops to better understand how high school students, current and recent, think their school spaces influenced the formation of their identities. This first Piece of the methodology engages in conversation with those directly affected by the research and asks for their perspectives on the issues raised, before establishing criteria, engaging in a design process or any other avenue that risks making uninformed

decisions or assumptions. The aim with this Piece is to design equitable processes and methods for engaging with students. I hope to engage in conversation with students and listen to their stories, experiences and ideas, through which I hope to uncover a range of key themes which will inform the criteria for the design research moving forward.

strategy

METHOD	OUTCOME	PURPOSE
Visual Literature Review for Participatory design	How-to poster guide	Making the key ideas accessible
Workshop planning	Plan presented as a poster	Visual presentation to be critiqued at reviews
Workshop material	Idea cards Question posters Booklets Drawing exercise	Variety in exercises and approaches to tailor the interaction and better suit participants on the spot.
Thematic analysis / results	Thematic mapping of notes & collected material / data	Setting design criteria Accumulating ideas

precedent

Processes, collaboration, participatory design - muf

muf is an interdisciplinary feminist practice who position their work at the intersection of art and architecture to create projects for the good of the public. Founded by Juliet Bidgood, Liza Fior and Kath Shonfield, they aim to work on projects that bring a level of care and detail to the public realm. They predominantly employ participatory design methodologies and privilege the relationships that they establish over images or design objects they might create. Jane Rendell discusses the practices process and contribution to the field of feminist practice:

“muf’s very mode of operation continues to evolve and invent new feminist approaches to critical spatial practice precisely because its way of working is itself a critique of architectural design methodologies that emphasize form and object making. Muf’s working method highlights the importance of exchange across art and architecture, the participation of users in the design process and the importance of collaborating with other producers. For muf, the architectural design process is not an activity that leads to the making of a product but is rather the location of the work itself.” (Rendell, 2011, p. 20)

muf position their outcomes as the ‘process’ or ‘methodology’ rather than what results from the process, which is a radical position to take. Rendell goes on to identify the pressing issues raised through the 1990s both in and out of architecture and how this led to the formation of practices such as muf:

“The 1990s saw a rise in the relevance and pertinence of identity politics focusing on class, gender, race, ethnicity, and sexuality. Emerging through, and at times diverging from, this discourse, has been the work of post-structuralist feminists, which has been particularly important for architecture in offering metaphorical insights through their focus on location. In this work new ways of knowing and being have been discussing in spatial terms, developing conceptual and critical tools such as ‘situated knowledge’ and ‘standpoint theory’ to examine the inter-relations between location, identity and knowledge.” (Rendell, 2011, p. 19)

muf’s formation and mode of operation was a direct response to identity politics through an understanding of location, identity and knowledge and the positions architects or spatial practitioners have in this dynamic. As discussed earlier through the literature review on gender and space, muf was an establishing practice in the transition between theory to practice and in recognizing the value in equitable collaboration not only for the outcome but for the effect participation can have on those involved.

process
muf
2000s

**Golden Lane Estate
Play Space
2018**

getting informed

Visual Literature Review

The following visual literature review aims to help form my approach to the participatory design workshops. The intention of the review, besides generating ideas from existing tested processes, is to inform myself of the potential risks and limitations of engaging in participatory processes and how these might be considered and mitigated. For example, Lozanovska and Xu have published a paper about children's participation in architecture students' research which outlines the various levels of genuine participation from manipulation to participant-initiated (Lozanovska & Xu, 2013). Many risks are involved with participatory design particularly around equitable exchanges between participants and facilitators and around manipulation of engagement to achieve desired outcomes.

A series of checklists, process & activity ideas, along with quotes from practitioners and ideas of my own have been collated into poster format. The poster, in the spirit of inclusivity and accessibility, acts as a guide or starting point that other people can pick up, learn from, build upon and use. For my processes moving forward, this poster guide will act as a reference point or set of criteria to help ensure my processes and engagement remains equitable.

how to: PARTICIPATORY DESIGN GUIDE

IT'S IMPORTANT TO ENSURE THAT PARTICIPATORY PROCESSES ARE WELL CONSIDERED, SPECIFIC TO CONTEXT, GENUINE & EQUITABLE.

This poster/guide provides a checklist to consider when embarking on participatory design processes to ensure you're tailoring your interactions to be specifically suited to the people involved. This aims to ensure an equitable relationship & exchange.

- it's about making space for everyone to have a say in our spaces.
- it's about making the process accessible to all.
- it's about putting in effort to include them all, genuinely.
- it's about working collaboratively.
- it's about making it by the people, with the people, for the people.

PROJECT PROCESS CHECKLIST

INITIATE RELATIONSHIPS	ESTABLISH A BRIEF	ITERATIVE DESIGN RESEARCH	TESTING + EVALUATION	EXHIBITION & CONSULTATION	CONSTRUCTION
<ul style="list-style-type: none">Engage initial relationships with a diverse range of people, groups and interested parties.Each individual relationship should be treated with respect and dignity, the process is to be mutually beneficial.Genuine effort to understand how each party wants to contribute, and how they want the relationship to operate.	<ul style="list-style-type: none">Facilitate conversation and provoke thought to understand the needs, wants, aims and objectives of the students.Come prepared with ideas to contribute. Speculate the vision for the project.Work collaboratively to design a process for working and designing together.Prompt participants to better understand how they work and learn to feed this into the process and design.	<ul style="list-style-type: none">Engage an iterative design-led-research methodology to bring research and ideas for presentation, discussion and feedback.Establish a representation and communication strategy to best communicate your ideas with participants.	<ul style="list-style-type: none">Engage in regular consultation sessions and design workshops with participants to evaluate progress and generate collective ideas.Engage participants by actively involving them in design exercises, modeling, drawing and problem solving.	<ul style="list-style-type: none">Exhibit work to be evaluated by a larger population.Exhibit work to motivate participants to put their best efforts in.Exhibit work to generate discussion, spread the word and make more people aware of the project.	<ul style="list-style-type: none">Design ways of having students involved with the construction process. Include projects that are more fluid, allowing participants to effectively contribute and collaborate on the physical outcome.

PARTICIPATION WITH YOUNG PEOPLE

methods:

(Lozanovska & Xu, 2013)

'our pedagogical' model

Children work with university students to solve problem and design solutions.

'design by children' model

Children are seen as active designers with the intention that they will provide different ideas to the professional adults.

'design with children' model

Children are seen as active designers working with a team of professional adults.

'children's voices' model

Gives children a voice. Children are given the opportunity to share their wishes and concerns to city governors.

child-initiated, shared decisions with adults

child-initiated and directed

adult initiated, shared decisions with children

consulted and informed

assigned but informed

tokenism

decoration

manipulated

Diagram adapted from (Lozanovska & Xu, 2013)

framework:

(Sanders, Brandt & Binder, 2010)

	PROBE	PRIME	UNDERSTAND	GENERATE
TOOLS & TECHNIQUES				
MAKING TANGIBLE THINGS				
2-D COLLAGES using visual & verbal triggers on back-grounds with timelines, circles, etc.	●	●	●	●
2-D MAPPING using visual & verbal components on patterned backgrounds		●	●	●
3-D MOCK UPS using foam, clay, paper, etc.			●	●
TALKING, TELLING & EXPLAINING				
DIARIES & daily logs through writing, drawing, blogs, photos, video, etc.	●	●	●	
CARDS to organise, categorise and prioritise ideas. Cards may contain signs, images, photos, ideas, etc.			●	●

definitions:

(Sanders, Brandt & Binder, 2010)

TOOLS	the material components that are used in PD activities
TOOLKIT	a collection of tools that are used in combination to serve a specific purpose.
TECHNIQUE	describes how the tools and toolkits are put into action.
METHOD	a combination of tools, toolkits, techniques that are strategically put together to address defined goals within the research plan.
APPROACH	the approach describes the overall mindset with which the research plan is to be conducted.

more information?

spatialagency.net

"Spatial Agency is a project that presents a new way of looking at how buildings and space can be produced. Moving away from architecture's traditional focus on the look and making of buildings, Spatial Agency proposes a much more expansive field of opportunities in which architects and non-architects can operate. It suggests other ways of doing architecture."

some quotes: the muf way.

(Bidgood, Fior & Clarke, 2000)

Quotes from the muf manual: This is What we Do.

"Collaboration operates across a range from the accidental to the deliberate, from the shadowing or paralleling of work to various kinds of wanted and unwanted interference."

"In order to make the thing the collaboration has to be about the making of the relationship rather than the object."

"You have to go a long way to create a structure able to support a collective process which isn't normative and which doesn't average out different contributions but synthesises them by finding new forms, new forms of organisation and space for disorder."

getting prepared

Visual Workshop Planning

Planning of workshop formats and activities has again taken the form of a poster to maximise readability and to emphasise that the workshop itself is designed. The workshop schedule and poster plan has gone through various stages of iteration, each being informed by precedents and literature and through critique and discussion at the first research review. The poster, along with the visual literature review was hung on the wall amongst all other work, for the design of the workshop to be critiqued. Many of the iterations were responding to issues around scope, desired outcomes or things I wanted to learn about, and perhaps most importantly, how the workshop could be flexible, approachable, interactive and fun to ensure participants would have positive experiences.

one of many iterations

Fig. 11. (left) Poster iterations for workshop plan
Fig. 12. (right) Final workshop poster plan

WORKSHOP PLANNING

WORKSHOP GOALS: Establish a relationship + get students excited.
Encourage students to critically evaluate their school and spaces.
Help establish criteria based to inform the speculative school design.

WHAT?

HOW?

WHY?

INTRODUCE SELF + RESEARCH

Screen + oral presentation to introduce myself as a 'old girl' and my journey through the school to this point of research.
Present workshop intentions, ideas and plan.

Build a **genuine** interest in my work by being **honest and transparent** about myself and my intentions.
Inspire interest in the research and how it can be useful to students to participate.

STUDENT INTRODUCTIONS

Individual **written response** to question prompts:
Describe yourself in 3 words.
Tell me 1 thing you want me to know about you.
Tell me what your plans are for after high school.

Reciprocating the introduction.
Individual written responses are more private and considered meaning students are under **less pressure** to 'perform.'
Mitigating chance of 'stage fright.'

FOCUS GROUP DISCUSSION

Individual **written response** to question prompts:
Reflect and write answers in private answer booklets before discussion with group.

Individual writing aims to **allow students to come up with their own ideas** before sharing them with the group.

Group discussion to question prompts:

if you could change a space in the school, what would you change and how?

if you could add more space to your school, what would you add?
what would it be like?

what's the most important space in the school for you?

have you ever felt influenced by gender stereotypes in school?

are you encouraged to express and explore your identity in school?
where do you think you have the space to do this?

do you think your school somehow influences your behaviour related to your gender identity?

in which spaces do you feel the most welcome to study, hang out and learn?

in which spaces do you feel the most comfortable expressing yourself?

in which spaces do you feel the most belonging to or represented in?

Group discussion aims to **spark ideas and conversation** between students to have them build upon each other's responses.

DESIGN RESPONSES

Individual **drawn response** to question prompts:
How is this space telling you to behave?
What about this space is successful or inviting?
What would you change or prefer for this space?

Finishing with a drawing exercise allows students to apply the discussion to the images and **give context** to the ideas discussed.

REFLECTION + DISCUSSION

Group discussion to question prompts:
Did you find the workshop beneficial to you?
What do you want to know?

Encourage students to **be open** and ask questions from me. Many students will have an interest in architecture and therefore they have a chance to gain info from me.

IDEAS TO FURTHER RELATIONSHIPS:

- Many participants will be interested in studying architecture and therefore might be interested to gain some insight from me.
- Students might be interested in tutorials, drawing workshops, modeling help ect.

bringing some ideas

Preparing workshop material

A series of cards were created, each with an idea or principle that a school design could be based around. Many principles were those recommended in the Ministry of Educations guidelines for school design and the others were some ideas of my own. The cards work by using playful hand illustrations to spatialize each principle, in a manner that is comprehensible and appears approachable. The communication strategy was to lack architectural drawing convention and use imperfect colouring. The idea is that people can take ideas from the cards and draw their own ideas on the back, or that the cards could simply be used as idea generators or discussion points.

space for ideas
on the back

what would your school be like?

Fig. 13. (left) Back of idea cards

Fig. 14. (right) Drawings for idea cards

**“COLLABORATION OPERATES
ACROSS A RANGE FROM THE
ACCIDENTAL TO THE DELIBERATE,
FROM THE SHADOWING OR
PARALLELING OF WORK TO
VARIOUS KINDS OF WANTED AND
UNWANTED INTERFERENCE.”**

- muf, 2001

let's get **MOVING**

let's get **creating**

let's get **making**

let's **PLAY**

PLAY
your ideas

let's build a **community**

express your **identity**

let's **PLAY**

let's build a **community**

let's get **creating**

down to the detail

Preparing workshop material & advertising

The idea cards provided an activity for participants to draw and design their ideas without guidance or a framework. Another activity invited students to interpret photographs of spaces (those same photographs that will appear in *Piece 2*) around their school and with a piece of tracing paper, draw or annotate over the image with what they liked or would change. The main activity of the workshop was a focus group discussion whereby three main subjects would be discussed each with three question prompts. These questions were presented in both a poster form for group discussion or as individual answer booklets. The booklets included covers to ensure privacy of the answers recorded within. Each of these four options were brought to each workshop and would be tailored on the spot responding to the group's interests.

question posters & booklets

In which spaces do you feel the most welcome to study, hang out & learn?

SPACE + INCLUSION

In which spaces do you feel the most comfortable expressing yourself?

In which spaces do you feel the most belonging to or represented in?

If you could change a space in the school, what would you change and how?

SPACES in SCHOOLS

If you could add more space to your school, what would you add? what would it be like?

what's the most important space in the school for you?

have you ever felt influenced by gender stereotypes in school?

SPACES + GENDER

are you encouraged to express and explore your identity in school? where do you have the space to do this?

do you think your school somehow influences your behaviour related to your gender identity?

getting people along

Preparing workshop material & advertising

Circulated marketing material to advertise the workshop included information forms required by the ethics committee, a research introduction document and a poster for the workshop. Please refer to appendix 03, for all ethics documentation pertaining to this research. The intention of the disseminated package was to make the research and the workshop approachable – the biggest challenge being the simplification of the content down to as few words as possible. Requirements set by the ethics committee made this challenging. The strategy for the poster was to be clear, simple and approachable. Four phrases were used to capture the main topics of potential discussion; architecture, high schools, gender equity and feminism. Depending on the interests of the group, the workshop could be more focused on any of these subjects.

a poster to
advertise

The poster is a dark grey rectangle with a teal and orange border. It contains the following text:

are you interested in:

**ARCHITECTURE?
HIGH SCHOOLS?
GENDER EQUITY?
FEMINISM?**

Hi there, I'm a Postgraduate student of Architecture at VUW & I need your help!

How might architecture provide more equitable learning spaces?

The years spent at high school are some of the most formative to the development of confidence in identity and in preparing young people to be resilient adults. The architecture of the schools in which this development occurs has an imperative role to play in providing space for identity to form freely and in providing equal opportunity for students to succeed. This research will specifically focus on understanding how architecture informs the performance of gender and how processes and spatial outcomes could be less prescriptive to allow gender identity to form freely.

Students aged 16 years and older are invited to attend this interactive workshop which will contribute to my Masters thesis. Please join me for a chat, as I would love to hear your thoughts and ideas.

**Friday 2nd August
Lunchtime
In the library**

Send through any enquiries to ekta.nathu@vuw.ac.nz
This research has been approved by Victoria University of Wellington
Human Ethics Committee #27452

Fig. 16. (left) Workshop advertising poster
Fig. 17. (right) Workshop introduction package material

saved by the bell...

A FEMINIST APPROACH TO HIGH SCHOOL ARCHITECTURE

Research Background
Workshop Information

Ekta Nathu
Victoria University of Wellington
School of Architecture
2019

research question

How might
architecture
create more
equitable learning
environments
for high school
students?

abstract ▸

The years spent at high school are some of the most formative to the development of confidence in identity and in preparing young people to be resilient adults. The architecture of the schools in which the development occurs has an imperative role to play in providing space for identity to form freely and in providing equal opportunity for students to succeed. This research will specifically focus on understanding how architecture informs the performance of gender and how processes and spatial outcomes could be less prescriptive to allow gender identity to form freely.

New Zealand's young people are currently the most vulnerable and worst affected by symptoms of mental health. A reform of the current education model has been proposed to better address and support initiatives and curriculums toward a focus of well-being for students. This research will investigate how the process and outcome of high school architecture can better support these proposed initiatives and engage and empower young people to be happier, healthier and more resilient.

This research will engage feminist theory, processes and practices to increase spatial agency and identity agency for students. Encouraging the autonomy of students is hoped to influence a sense of purpose and belonging to the space and help students find their identity within a community. The intention is to facilitate students to be empowered, confident and resilient.

The theoretical framework positioning this research will be between feminist practices, gender and architectural space. Supporting fields of research will include critical pedagogy and ministerial policy. While each existing field is independently expansive in scope, this research will explore how these fields intersect, overlap and function when applied to the context of high school architecture.

A design-led methodology will inform three milestones towards the completion of this research, each considering 'design' as the process, outcome and representation strategy. The first milestone, Processes, will involve the design and running of workshops with current students. The second milestone, Interventions, will be the design of spatial interventions for existing school environments. The final milestone, Speculations, is envisioned as a speculative design of a high school where the accumulated knowledge will be represented to provoke curiosity and communicate the potential in this research area.

The outcomes of this research, the architectural processes, design and communications, aim to better understand how architecture can facilitate space for identity development and equal learning opportunities for all.

how can you help?

Get involved in a 40min workshop to help me better understand how your experience at high school has influenced your gender identity.

what's the point?

The opportunity to learn about academic research and be involved in a participatory architectural design process.

what's this about?

- talking about school
- talking about gender
- talking about identity

As the researcher of spaces that effect you, I want to better understand your relationship to the buildings that you learn in, study in, socialize in and spend a significant amount of your time in. I want you to help me understand how to better design schools for you.

This should be a fun, casual and interactive workshop where we'll talk collaboratively and all learn from each other. You'll get the opportunity to be involved in an academic design process and gain insight to the practice of architecture in an academic context.

who can take part?

The workshop is limited to year 13 students or students who are at least 16 years old. If you meet that requirement, you're welcome to participate! You don't have to know anything about architecture or designing, you just need to be curious and willing to share your thoughts about your experiences in the school environment.

some things i'll ask you:

- If you could change a space in the school, what would you change and how?
- If you could add more space in your school, what would you add?
- What's the most important space in the school for you?
- Have you ever felt influenced by gender stereotypes in school?
- Are you encouraged to express and explore your identity in school? Do you think you have the space to do this?
- Do you think your school somehow influences your behaviour related to your gender identity?
- What does feminism mean to you?
- How has feminism impacted your identity?
- How has feminism impacted your everyday life?

things we'll do:

I'll deliver short presentation about my research, then we can talk about it as a group. You'll also have the opportunity to leave notes for me about things that you don't want to discuss as a group.

workshop planning

Sampling Rationale

Workshop groups included; Wellington East Girls' College, Rongotai College and first-year students from Victoria University of Wellington's Architecture programme. The two schools chosen are the lowest decile schools in Wellington City; one a boy's school, the other a girl's school. Local high schools of the lowest decile were chosen in order to hear from those students at schools which receive the least private funding, and therefore are closest to the standard provided by the state. To gain the perspective of those in a co-ed environment, first year university students were invited to participate. This also allowed the opportunity for those recently coming from single-sex schools to compare and reflect with their newly integrated education spaces. Students above the age of 16 were invited to participate with the intention of capturing the perspectives of those who had experienced the longest time at school and could reflect on their experiences. If this research were to be continued for a further twelve months, it would be beneficial to undertake workshops in other schools in the region, to enable analysis and comparison of a greater range of results.

Methods of Recruitment

Schools were contacted first to gain consent from the school before contacting or inviting students directly. The heads of the Design and Visual Communication (DVC) departments were then offered the invitation (including the package of information) to share and discuss with their students. All communication in organising the workshops was conducted through the teachers to ensure a level of security for students. DVC teachers and students were the first point of contact as it was assumed these would be the most interested students including those who would potentially be interested in studying architecture. The workshop was open to all students (16 years and older) however, I wanted to insure those interested in studying architecture would have the opportunity to discuss this prospect with me, giving opportunity for conversation. The intention with this targeted group of students was to ensure an equitable exchange and reciprocity.

Ultimately, this conversational approach was to ensure an equitable exchange of information. Workshops were held during lunchtimes to increase accessibility to all interested students, and students were offered snacks and drinks during the workshop.

Question Rationale

Questions were organised into three sub-categories, again to ensure flexibility and adaptability for where the discussion would focus. The categories and associated questions aimed to gain insight into the experiences of students in their high school spaces, particularly to uncover which spaces were preferred, how different spaces made them feel and what students wanted from their spaces. Along with this, questions were asked around the general culture and influences in expressing identity at their schools. The intention with data collection was to gain insight into an array of associated topics (spaces, gender identity, school culture) from which I could then uncover the key themes, relationships and influential factors.

Question List:

SPACE + SCHOOL

- *If you could change a space in the school, what would you change and how?*
- *If you could add more space to your school, what would you add? What would it be like?*
- *What's the most important space in the school for you?*

SPACE + GENDER

- *Have you ever felt influenced by gender stereotypes in school?*
- *Are you encouraged to express and explore your identity in school? Where do you think you have the space to do this?*
- *Do you think your school somehow influences your behaviour related to your gender identity?*

SPACE + INCLUSION

- *In which spaces do you feel the most welcome to study, hang out and learn?*
- *In which spaces do you feeling the most belonging to or represented in?*
- *In which spaces do you feel the most comfortable expressing yourself?*

Methods of Data Collection

Data collection was primarily orientated around the set questions and collected through group discussion (and collectively written notes) or written answers in individual booklets. Complimenting this was the design exercise which included annotating and drawing over photographs of their school which was only conducted at Rongotai College. Participants at Wellington East Girls' College appeared more captivated by the conversation and written responses and less interested in design activities, so this drawing exercise was not undertaken.

Workshop Protocol

The workshop opened with introductions between myself and the participants with the intent of disclosing my position and aims for the workshop and to gain an understanding of the interests of the participants. This then allowed me to tailor the workshop somewhat and put emphasis of those concepts that the participants cared about to ensure they stayed engaged and were able to discuss or learn something related to their area of interest. Following this, I gave a short introduction to my research before commencing the prepared exercises.

Ethical Issues & Limitations

The largest concern of the process was the limited number of workshops conducted. While many measures were put in place throughout the planning and process, simply holding one workshop with each group of participants does not allow for a genuine trade of ideas. More workshops would have allowed opportunity for participants to design, contribute and critique therefore allowing them to more genuinely engage. Beyond this, if the workshop process is to be considered outside of the scope of this thesis, a student-initiated approach as defined by Lozanovska and Xu (2013) whereby they identified the issues and engaged a researcher to facilitate their response would have been potentially the most empowering approach. This of course was not possible given the context and scope of this thesis where instead, I as the researcher, identified a problem area, initiated and conducted the workshops and then responded through a design process.

The other area of concern was the focus group format. The focus group questions were presented in a range of formats that allowed flexibility and the ability to respond to the dynamic in the workshop. The aim was to minimise the risk of unconscious manipulation of the conversation from me, the facilitator, to gain any answers that would have simply confirmed my speculations. Although measures were put in place to prevent this and I was prepared to be considerate of this as the workshop was being conducted, the risk remained and could have been further mitigated had the workshops been more student-initiated.

Single-sex: girls

workshops

Getting people involved

Smaller groups allowed more customised and personalised conversations to occur whilst also enabling me to critically engage in each conversation; asking the questions required to investigate with some depth. The demographic of participants included people with learning disabilities, those with mental illnesses, some with experiences of being bullied and trans people. Those who have not commonly been included in these conversations felt that the workshop gave them an opportunity to share and express their experiences and ideas.

Fig. 18. (left) Workshop at all girls' school

Fig. 19. (right, top) Workshop at Victoria University of Wellington

Fig. 20. (right, bottom) Workshop at all boys' school

First year VUW SARC Students

Co-ed

Rongotai College

Single-sex: boys

well-being

libraries

warm + dry

Connections between buildings would keep us warm & dry.

The school / ladies COLOUR + CHARACTER.

character

Places to
• EAT
• SHARE
• LOVE
Food!

Everyone loves the 'library' but it only fits few -
- can't eat here but can hangout

inclusivity

We need space for quiet, independent learning/study

We are a BROTHERHOOD & we take care of each other.

Places to watch Sport together would be cool & social (get them off individual phones)

Somewhere to go!
- hangout
- socialise
- just be.

Space to CHILL & RELAX!
Calm spaces

Hall = Heart.
- informal behaviour
- can't eat here
- can hang out

Reading nooks / Independent spaces.

The tuckshop is dark, dingy & not a nice place. It has lots of customer's though.

A common room that fit everyone would be more INCLUSIVE!

Common Spaces
Lounges to meet or hang

Natural light. Space to SPREAD OUT.

Cozy Space to feel warm, safe, secure, protected, dry, belonging.

Outdoor & alternate learning space/classrooms

lounge space to form + grow relationships

Shaded outdoor space to hangout.

hangout

Alternative classroom learning styles

calming restful

Cozy Spaces
warm

Nap Rooms / pools

Space to chill out and relax, take a break
kitchens, couches

Quiet Reading spots/nooks
focus space.

Social & hangout Spaces.

retreat space

Social space

active spaces

canteen

Student express themselves in...
-CREATING.
-Art rooms
-technology blades
-Music
-Drama.

Students love using the basketball courts!

"There's nowhere to eat lunch."
-library Vars
-hall - corridors
-classrooms

Bathroom Vandalisation
= disrespectful space = disrespectful use.

"Prison-like School"
- School bell
- Grey uniform
- Uninspiring interior

Space to hang things on the walls
POSTERS.

People like the Ping Pong tables but they're in a dingy space near the canteen.

local skate park 'out of bounds' leads to 'loitering'
There's nothing for students to do around here.

'boys' will be boys' attitude results in disrespectful spaces eg
- messy - grubby - dirty spaces.

Allocated Space to groups for REPRESENTATION

inspiring

Space for independent work/study learning.

Outdoor PLAY space.

Designated Spaces to feel belonging to → Agency in

Uncharacteristic Interiors
= boring

respected

adaptable

Space to PLAY
MOVE my body

Space to Explore
- learn things with zero stakes
- space for mistakes.

Adaptable space for different learning requirements
- inclusivity
- hearing, vision etc.

play + move

homely

respect & dignity

Thematic Analysis

1

**SPACES
SUPPORTING
WELL-BEING**

2

**ALTERNATE
LEARNING
SPACES**

3

**ACTION SPACE
THINGS TO DO**

4

**DIGNITY
RESPECT
REPRESENTATION**

key themes

Method: Thematic Analysis

The data collected, in the form of observational notes, annotated posters and filled answer booklets, were assessed using a primary methodology of thematic analysis. This involved rigorous reading and rereading of material and interpretation of the data, followed by observation and extraction of common themes which were grouped and analysed to find patterns across the data. This methodology for qualitative analysis is commonly used to identify themes across data using a systematic process. An inductive approach to the analysis has meant that themes identified have directly been extracted from the collected data and using a systematic approach means

these themes are as genuine as possible. The thematic analysis has been conducted at a latent level and goes beyond the semantic, descriptive content of the data and starts to identify and examine the underlying ideas, assumptions, conceptualisations and ideologies (Patton, 2002). The process of analysis adopted seven stages as outlined by Braun & Clarke (2006). First the data was familiarised through repeated reading to gain a general understanding of the data. This was followed by the generation of an initial coding system which was used to extract ideas, concerns or points of interest from which the key themes were identified.

1 SPACES SUPPORTING WELL-BEING

Spaces that support well-being cover a range of spaces orientated around physical, social and emotional care. Suggestions were made for spaces that support physical well-being such as warm, dry and sheltered connections between buildings and spaces to 'hang out'. Spaces that promote social activity and collectivity were suggested as another opportunity to support community well-being. Finally, respite spaces were requested in which students could individually relax, take respite and feel safe.

3 ACTION SPACE THINGS TO DO

A large component of the discussions across all three groups was a need for something to do or somewhere to go at lunchtimes. Alternatively, this could be considered as a need for 'third space' or 'in-between space' for the 'in-between times.' Students want to take ownership of a place that they feel welcome and represented in. In an effort to not further perpetuate stereotypes, the concept of play will respond to this key theme from the discussion. Playful spaces, interactive spaces and spaces in which students have some agency could provide students with a place to belong to.

2 ALTERNATE LEARNING SPACES

The key theme that came from discussions about learning spaces was the need for diversity and flexibility. Suggestions included individual learning spaces, outdoor learning spaces, alternative classroom styles and spaces that suit different learning requirements.

4 DIGNITY RESPECT REPRESENTATION

The most striking theme to emerge from the workshop discussions was the lack of respect, dignity and representation felt by the consulted students about their school environments. When asked questions about their school environments, students described how uninspiring and neglected their spaces in school are. While classrooms and learning spaces are typically associated with a teacher who has more agency in how the space is managed, many of the spaces students occupy are the 'third spaces' of the schools which have largely gone unattended. These spaces include the bathrooms, corridors (where students go during lunch), the canteen and outdoor areas.

so, what have we learnt?

Discussion & Implications

Many of the key themes uncovered through the workshop discussions aligned with relevant issues raised through the reviewed literature. An overarching theme highlighted was the general feeling of underrepresentation and undervaluing of young people demonstrated through the neglected spaces which they occupy, and the lack of agency students have in decision making for those spaces. This correlates with much of the literature around power dynamics embedded within space and particularly around the lack of inclusion and user participation for students through design processes to challenge those hierarchies. These issues then relate to a lack of

spaces supporting emotional and physical well-being and in spaces that haven't been designed with student wellbeing, needs or wants as a genuine consideration. What the workshops highlighted is a need of greater consideration for the spaces that are mainly occupied by students and that do not have any adult representation or voice. These are the 'in-between spaces' that appear to go largely unnoticed by decision makers but are the sites of identity development. These sites will be the main focus of the design process moving forward, and the themes uncovered from the discussions will act as the criteria or brief for the design outputs.

Conclusion

Running the workshops allowed the voices of students to become the driver for the remainder of this research. The findings through the discussions have made the line of design inquiry clear as the site of 'in-between spaces' occupied during 'in-between times.' The inductive approach to thematic analysis has also allowed a set of design intentions, aims and criteria to be established from which any design output can be measured against. Overall, the workshops have ensured that my research moving forward has some rigor, as the direction and parameters have been directly informed by those whom the research directly affects, and therefore ensures my aim of having the student voice as the driver for the research is satisfied.

01

02

03

04

05

06

07

chapter 04

PIECE 2:

SITES

“When we say gender is performed, we usually mean that we’ve taken on a role or we’re acting in some way and that our acting or our role playing is crucial to the gender that we are and the gender that we present to the world.”

- Judith Butler, 2010

sites

Introduction

Piece 2 endeavours to uncover what might be embedded within existing school architecture that is disseminating messages about how students perform gender. This research employs a framework adapted from Judith Butler's concept of gender performativity (Butler, 1999) and follows similar frameworks and methodologies from Alexia Panayiotou's paper, Spacing Gender, Gendering Space, in which she states, **"Since gender is not something we are but something we do, a performative lens highlights the idea that subjects continually perform identities (of gender and sexuality) as these may be prescribed by hegemonic discourses."** (2015, p. 429). Panayiotou goes on to explain, **"Space is not gender neutral; on the contrary, it can be said that all spaces are gendered spaces. But what happens when marginal actors challenge the symbolic spatial order through their otherness?"** (2015, p. 428).

Gendered spaces have in the past been categorised as masculine or feminine based on characteristics of spatial qualities or features

(Panayiotou, 2015). These frameworks can be considered simplistic and limiting based on how they perpetuate issues around stereotyping. Instead, the concept of gender performativity aims to uncover how spaces have influential power over how occupants behave, what they do, how they do it. So too does this framework allow the consideration of spatial power dynamics and what spaces say about our relationships with other spaces and people. All of these influential qualities of a space begin to define what 'normal' behaviour might look like or the level of oppression or power assigned to a person might be in relation to another. This idea becomes of particular concern when brought back to the context of school spaces where identities are forming, and students are trying to understand their identities. Davidson & Frank discuss this concept in the context of schools, **"By uncritically engaging in dominant discourses, students regulate their own behaviour to construct a sense of identity that seems to 'make sense' because of its similarity to other social and gendered performances."** (2006, p. 153).

**If gender is something that we do,
rather than what we are,**

how are our spaces,

what we do in those spaces,

informing a performance of gender?

habit form habitats & habitats form habits.

precedent:

Ways of Seeing by John Berger

In the 1970s, John Berger the art critic and novelist, developed a television series and later a book titled, *Ways of Seeing*. The book aimed to start a process of questioning whereby the author dissects a range of images through visual essays to question how a topic might be observed, represented, communicated and how each image might hold a range of meanings or hidden messages depending on the observer and the framework from which they are viewing the image.

To the right is a spread of pages from one of the visual essays in the book. Berger uses a range of representative images from works of fine art, advertising, and photographs alongside a range of imagery less related to the subject to help uncover some of the hidden messages around the portrayal of women. Using imagery of meat and

fine food alongside advertisements with women selling lipsticks, deodorants and pantyhose, tells a story of women being represented as commodities and consumable objects that might not be so strikingly obvious without the entire ensemble. The connections and relationships the viewer might make between what each image or composition of images is telling them is also bound to differ for each viewer. The exercise is a subjective one whereby Berger is conveying his point, or the essay's argument, using visual material.

Berger's critical lens when studying imagery will influence the ways in which I observe the following images of gendered space and influence a critical lens through which I will observe the details, dynamics and relationships within the image.

Method

The aim of this piece of the research is to uncover what messages might be embedded within the architecture that influences how students perform gender. To test this, elements of the methodology used by Panayiotou will be adapted to better suit the context of school architecture and to be more visually communicative. In Panayiotou's paper a series of sets from films with strong female leads were studied to uncover the spatial power dynamics embedded within each designed set and what that might tell us about the character. Panayiotou argued that films with strong plots, in this case films with executive female leads, demonstrate the ways mainstream media portrays our understanding and definitions of gender, gendered bodies, spaces and behaviours (2015). Using a similar framework, Piece 2 will start with examination of sets from the TV drama *Mad Men*. The series depicts the office life of a marketing firm in Manhattan during the 1960s. The show (and set) was formed in the 2000s creating a telling dynamic of a contemporary portrayal of a socially segregated society. This set is portraying a time of heightened visibility and acceptance of gender discrimination, power dynamics and gendered spatial behaviours therefore allowing

this test to expose some of the most strikingly obvious examples of gendered space, a concept that can be challenging to clearly communicate. Photographs of the set, empty of people, will be analysed then annotated over the top with my interpretation of messages potentially encoded within the space; answering the question, 'what is this space telling me about how I should behave and where I belong?' Following this test, the same method will be used on a range of photographs from the school libraries at which workshops were conducted. The library has been chosen to contrast how the sets are radically gendered, predicted to be sites that will require more observation of detail and tacit understanding of how people operate in the space. This approach aims to create a range of examples of how space is gendered and exaggerate the complexity of such dynamics. The resulting images with their annotations will then be analysed using a method of Open Coding and discussed to identify a range of criteria or strategies for considering the implications of various spatial qualities on the power dynamics within space. This will be presented in the form of a pull-out checklist to consult as the research moves forward into design concept phases.

SPATIAL GENDERED PRACTICES

**Reading images of the space,
what are they telling you?**

masculine / more power / more agency

feminine / less power / less agency

Fig. 27. Executive (male) workspace from Mad Men set

Fig. 28. (left & right) School of Architecture Library analysis

Fig. 29. (left & right) Wellington East Girls' College library analysis

so, what have we learnt?

Discussion & Implications

Informed by the photo analysis conducted, the following checklist has been conducted as a list of prompts for designers to consider. Rather than a checklist of rules or strict solutions for creating equitable space, this list suggests potential dynamics to consider, typically more susceptible to embedded inequalities particularly within school workspaces. This list acts as another ‘take-away’ of findings from the research, hoping to generate actionable change and contributing to Piece 3 of the methodology.

DESIGNERS CHECKLIST FOR EQUITABLE WORKSPACES

Thoroughfare:

- ☐ Have you provided a range of public to private thoroughfares and accessways?
- ☐ How exposed / private are they?
- ☐ How accessible are they?
- ☐ Stairs?
- ☐ Ramps?
- ☐ Handrails?
- ☐ Lighting and visibility?

Workspaces:

- ☐ Have you provided a range of public / private workspaces?
- ☐ Is there space for large-table work and for individual work?
- ☐ Are there spaces where people can do private work and hide their screens?
- ☐ Is there space for a range of activities?

Accessibility:

- ☐ Are there tools to help people reach things?
- ☐ Shelves?
- ☐ Windows?
- ☐ Is there a range of loud and quiet spaces?

Agency

- ☐ Is furniture adaptable to allow people to create their own ideal workplaces?
- ☐ Is there space for people hang or display work?

so, what have we learnt?

Conclusions & Reflections

PROCESS

The largest limitation in considering gender performativity in this way, is that much of the analysis is down to predictions and assumptions made by the author. This is problematic for two main reasons; firstly, it is not possible to predict all of the cues people may read in a space, and secondly, the analysis conducted by me is hugely biased by my experiences and lens. It is not possible for one person to predict or capture the enormous variety of ways people might read a space and how they feel or may be prompted to behave, due to each person's complex experiences. For

these reasons it could be deemed that this test, while successful in developing my understanding of spatial power hierarchies, was not successful in gaining knowledge generalised enough to be applicable in other contexts for other people. Instead, a more comprehensive exercise would have been to take this exercise to the various students at the workshops and have them do an analysis of the space. Collected data could then be coded to derive some more wider reaching themes and conclusions.

OUTPUT

The resulting checklist attempts to list considerations rather than rules when designing space. This approach is much more successful than presenting a list of rules or guidelines based off a biased exercise, and instead hopes to pose questions to designers and challenges them to conduct their own research into their specific contexts and potential existing, embedded power dynamics.

01

02

03

04

05

06

07

chapter 05

PIECE 3:

INTERVENTIONS

“Our position, where we live and where we work, where we come from and where we are going, is important in understanding ourselves as human subjects. How people define their own spaces and experience them is important in constructing identities.”

- Jane Rendell, 2000

chapter structure

Introduction

Piece three is about communicating the findings of the design process and iterations from piece four. Precedents that have directly influenced the approach for Piece three are included in this chapter. The work directly contributing to Piece three will be presented with each relevant part of Piece four.

Simultaneously as designs are iterated, the applications of the findings, in a real-world context, will be considered. Taking the form of cheaply printable guides, posters or 'zines,' these will aim to make accessible and applicable the

information from the conducted research. Guides include portraying step-by step instructions for current students to construct interventions in their schools, or step by step instructions for architects wanting to engage in participatory design processes. The intention of Piece three is to consider democratised processes, ways of including non-architects in place-making and to increase agency throughout the process. It is about relieving the reliance on expert knowledge and working to design ways of including people to help make the processes and outcomes of space more equitable.

Piece 3: Interventions (contributions)

Piece 1: Processes

Piece 2: Sites

Piece 4: Speculations

- *Participatory Design Guide Poster*
- *Designers checklist for equitable workspace*
- *Introduction to Piece 3 - you are here*
- *Bathroom Posters*
- *How-to Gender neutralise your bathroom Zine*
- *How-to Make a Cosy Space Zine*
- *How-to Make a Cosy Space Zine*
- *Intervention Physical Model*
- *An Updated NZIA Process Poster*
- *Spreading the word - public conversations*

precedent

Inflatocookbook by Ant Farm

The 1960's saw a wave of utopian architecture practice aiming to catalyse societal change through their work. A key precedent for the communication approach to Piece three of this research is Ant Farm, the avant-garde art and architecture collective. Established in 1968 in San Francisco, the group critiqued American culture of mass media and consumerism by promoting a type of architecture that moved away from relying on expert knowledge. Their series of *Inflatocookbook* zines communicated dense technical information, in a hand-made and approachable format, for members of the general

public to easily read, follow and use to construct their own inflatable structures. These structures provided alternative, temporal, participatory structures that were not suitable for typical architectural representations in plan and section. The work was highly political and commented on social, cultural and environmental issues (Awan, Schneider, & Till, 2011). Visual communication through this thesis aims to destabilize hierarchies between the architect, drawings and those able to read the drawings by using approachable and inviting methods to encourage participation in the act of designing, drawing and critiquing.

communication
ANT FARM
1960s

**content
unavailable**

precedent

Designers Speak (up) Catherine Griffiths

Designers Speak (Up) is an open and democratic platform for all designers in Aotearoa, New Zealand to have a voice and be heard in a common space. The platform was started in 2018 and launched through the publishing of three key posters designed by Catherine Griffiths. The posters were an alarm and a call to action on the leading institute of the industry's problem with gender equity. Griffiths, on the Designers Speak (Up) platform highlights some of the key issues:

“Each year the Designers Institute of New Zealand awards two Black Pins, its supreme award. For the past two decades, 43 Black Pins have been awarded, of which 40 have gone to men and 3 to women. For this year’s Best Design Awards (to be announced in September), of the 9 convenors of juries for judging the nine main categories and various sub-categories, 8 are men and 1 is a woman. Of the jurors and convenors combined, 46 are men and 15 are women. The jury for the Value of Design Award is made up of men only, no women.”

The decision for Griffiths to launch the blog came out of near-unanimously supportive social media response to the three posters, demonstrating the power of graphic design and imagery to encourage meaningful change. The Designers Speak (Up) platform has been hugely influential in the visual communication of this thesis, specifically through the design critiques and opportunities to present. Strategies of high-contrasting, bold, bright colours along with punchy text and minimal ornament have been used to extract and communicate key messages and ideas. Posters have been used throughout visual presentations as markers, identifying the position of the research and key ‘take-away’s’. Griffiths’ posters have catalysed conversation, community and action. With each opportunity to design the way this research has been presented, I have aimed to do the same.

graphics

CATHERINE GRIFFITHS

now

Graphic poster design to explore social, cultural and political issues in the field of Design in New Zealand. Visual language to create community and employ activist practice.

presentation posters

Fig. 35. (left & right) Photographs of posters used in thesis presentations

01

02

03

04

05

06

07

chapter 06

PIECE 4:

SPECULATIONS

“Instead of designing for, feminist pedagogies favour designing with. Instead of insisting on teacher-student hierarchies, feminist pedagogy favours mutuality and co-learning. Feminist pedagogy is not about a singular truth, but multiple and situated knowledges and truths. It values the soft, the tacit and the intangible. These are different values to those of traditional (male invented) pedagogy.”

- **Tatjana Schneider, 2013**

chapter structure

precedents, concepts, programme, proposal

The following chapter integrates Piece 3 with Piece 4 of the methodology. This section starts by communicating the design concept exploration organised by programme; bathrooms, common space, social corridors and play space. Exploration of each programme consists of strategic planning and diagramming to understand the design principles by which to design, the design strategies to achieve these principles and finally the design outcome which should correlate with one or more of the criteria established through the workshop thematic analysis from Piece 1. Along with this, key precedents will be discussed, site analysis will be completed and finally, iterative, sketch and concept design will be undertaken.

After each programme has been explored, a holistic, speculative developed design concept will be presented – aiming to incorporate each of the initial programmes explored, and to apply and synthesise all of the key findings of the research. It is important to note that the focus has been on designing spatial interventions and ways of activating existing space rather than the design of a new school, as this best fits the feminist approach. This approach aims to make the design research and findings applicable to existing schools and students, as it could potentially have greatest impact in this space.

How might architecture create more equitable learning environments?

Through bringing a level of care and empathy to how we design the in-between spaces of high schools.

This chapter will focus on redirecting exploration of the research question, with integration of acquired knowledge, back to an iterative, architectural response. With a focus on in-between programmatic spaces as the sites of exploration, each design will be tested against the set criteria from the workshops and understanding of reviewed literature to maximise spatial opportunities and create a generosity of space. Each programme concept will be iterated without a site to fully explore the programmatic potentials for each concept without restricting specific parameters of site.

programme

precedents, concepts, programme, proposal

The following diagrams depict the process of deciding on the programme to focus on moving into concept design. The first diagram draws ideas for potenetial programme from my observations and from workshop discussions. The Crossover programme diagram (right) compares each programme type that achieves both categories from the diagram below to the four criteria established from the workshops.

<i>My “expert” input</i>	<i>User input</i>
Potential programme to intergrate as <i>observed</i> through visits:	Potential programme to integrate as <i>discussed</i> at workshops:
Library	Library
School hall	
Canteen	Canteen
Lockers	
Corridors	Corridors
Main entrance	
Bike sheds	
Water fountains	
	Nap areas
Kitchens	Kitchens
Dining	Dining space
Playgrounds	Playgrounds
	Calming spaces
	Outdoor classrooms
Reading / resting nooks	Reading / resting nooks
	Sport watching areas
	Club rooms and spaces
	Skate park
Bathrooms	Bathrooms

** list in no particular order*

Crossover programme:

Chosen programme:

precedent

Dirty Drawings by Jennifer Bloomer

Jennifer Bloomer's series of '*Dirty Drawings*' of the 1990s draws parallels between the creation of a building assumed to be a clean act of control and precision, to the mess of femininity and childbirth. Bloomer's work through her writing and series of drawings questions the gender of creativity. In discussion of this series she states,

"The dirty drawing addresses architectural representation by colliding the rendering with the working drawing (the sacred with the profane), while at the same time pointing to the fetishistic role of the image in architecture. It comments as well on the contemporary phenomenon of the architectural drawing as art commodity." (Bloomer, 1992, p. 18)

Bloomer reveals the insufficiency of logical and rational structure, as presented through architectural drawings, to represent and explain the mess that is how humans occupy and use space. Jane Rendell discusses Bloomer's drawings and techniques for critique, **"Through her dirty drawings and her incorporation of parts of the female anatomy – breasts, milk, fluids, blood, hatching, udders – into architecture, Bloomer generated a critique of the sterility of the**

architectural drawing process." (Rendell, 2018)

The following drawing is a visual representation of Bloomer's ideas and critiques of the architectural drawing and process. A photograph of my workspace has been included, demonstrating the unconventional and uncelebrated ways architectural drawing and practice happens. The photograph aims to communicate the realities of working as a student of architecture; the mess, the unconventional places you occupy and the unconventional methods you may end up employing (makeup and wine). This image is also intended as a statement and critique of the realities of working in this industry. From my discussions with peers and practitioners, it would appear that the architectural profession is one that rewards those who are privileged with the ability to dedicate every moment of their lives to their work. An attitude that is wildly outdated and inequitable and leads to these sorts of unconventional ways of working. The drawing produced takes existing plans from the architecture campus and collages them, making them unreadable to architects (as they probably are to the general public when in their published state). Layered on top of this

representation

JENNIFER BLOOMER

1990s

is an expressive drawing using makeup and other cosmetic products (foundation, concealer, mascara, eyeliner, lipsticks) applied using conventional tools, (brushes, wands, sponges). The drawing aims to communicate a number of ideas. Firstly, the power dynamics embedded within conventional architectural drawings; who draws it, who is meant to read it, who can read it. Secondly, the mess of producing architecture compared to typical final representations which

show both the process and outcome as clean, sterile, and perfect. And finally, it aims to represent the historical position of women in the architectural discipline; their position on the surface. While the structural, spatial and architecture realm has been reserved for the masculine, the 'feminine touch' has typically been applied through textiles, colour, furnishing, decorating and ornamentation.

Fig. 38. (above) Unconventional architectural student workspaces
Fig. 39. (right) Resulting drawing using collage of plans and makeup

**“THE FEMININE CAN BE
A RADICAL ELEMENT IN
ARCHITECTURAL PRACTICE.”**

Jane Rendell, 2018

communication

A note on colour, style, representation and rendering

Drawings aim to constantly be questioning how architects communicate with non-architects and how we can do so in a more inclusive, legible and equitable way. Drawing and rendering methods will aim to break conventions for the sake of legibility. Perspectives will be favoured as the drawing style for communicating developed designs as these are easiest to read for non-

architects. Colour, hatching and texture will be used to express a playfulness and approachability while hand drawings and diagrams will be used to communicate spatial information in decoded format. It the intention of the communication techniques employed throughout this thesis to demonstrate a radical challenge our exclusive architectural language.

SITELSS CONCEPTS

SITE #1:

SITE #2:

SITE #3:

SITE #4:

BATHROOMS	154
COSY COMMON SPACE	176
SOCIAL CORRIDORS	188
PLAY SPACE	200

bathrooms

Introduction

Access to safe, clean toilets is a basic human right. Human being the key word. The following exercise aims to understand how toilets within school contexts can be better designed to promote inclusivity, safety and comfort. This design exercise will be used to highlight how spaces can be gendered, prescriptive and how design can be used to make space more equitable. It should be noted that this section of design was conducted before the workshop sessions with students and therefore has been informed more by literature than student input.

Toilets have had a long and political history of triggering social anxieties of the mainstream through the treatment of previously marginalized groups moving into mainstream society. This was seen in the 1880s with the introduction of the 'ladies room' as women entered the paid workforce. Again, in the 1950s & 1960s, through the fight to abolish segregated coloured bathrooms during the civil rights movement in the USA. Following this came the fear of being infected with HIV by sharing bathrooms with gay

men during the aids epidemic unfolded during the 1980s. More recently, this tension has been seen through the Disability Rights Movement demanding accessible restrooms and fighting for the American Disabilities Act in the 1990s (Kogan, 2018). The current campaigning for gender-neutral, all-inclusive bathrooms is the latest chapter in a long line of political unfolding.

The intention of this section of the design chapter is to create an inclusive bathroom design that attempts to acknowledge the needs of a spectrum of people. This is inclusive of those who identify as female, male, trans, intersex, non-binary and other gender non-conforming people. The anxiety or discomfort surrounding inclusive bathrooms stems from the idea that one's gender is determined by sex or anatomy. Gender is a constructed spectrum and there are many ways of expressing one's gender independent to biological sex.

This design intends to show a level of empathy for all users. Bathrooms in high schools are typically the only places for independent, private respite. A number of activities occur in these spaces outside of the expected. Students escape, rest, cry, take selfies, tag walls, adjust makeup and collect themselves. Students also self-harm, take drugs, make private phone calls and bully. As mentioned earlier in this research, students are typically strictly governed, whether it be at home by family or parents, or at school by staff and teachers. Privacy can become a rare commodity. The approach for this design has been to create private spaces with a consideration for a range of activities to occur safely along with adjacent active social and thoroughfare spaces to increase surveillance.

Ivan Coyote is a spoken word performer, author and LGBTQIA+ advocate whose moving words beautifully articulate this issue and how spatially simple it can be to make profound effects for people:

“If you can’t bring yourself to care enough about people like me, then what about women and girls with body image issues? What about anyone with body image stuff going on? What about that boy at school who is a foot shorter than his classmates, whose voice still hasn’t dropped yet? What about people with anxiety issues? What about people with disabilities or who need assistance in there? What about folks with bodies who, for whatever reason, don’t fit into the mainstream idea of what a body should look like? How many of us still feel shy or afraid to disrobe in front of our peers, and how many of us allow that fear to keep us from something as important as physical exercise? Would all those people not benefit from these single stall facilities?”

We can’t change the world overnight for our children, but we can give them a safe and private place to escape that world, if only for just a minute. This we can do. So, let’s just do it.”
(Coyote, 2015)

Mary Lou Rasmussen is a researcher of sex education curriculum and studies the relationship between gender, space, pedagogy and school architecture. In their article, *Prescriptions for sex and gender in school architecture*, Rasmussen calls on a theoretical framework established by Elizabeth Grosz for the architectural spaces of toilets and how they function as an example of prescriptive gendered spaces. They write, “**toilets don’t just tell us where to go; they also tell us who we are, where we belong, and where we don’t belong. Toilets are considered using a post-structuralist theoretical perspective that sees space, architecture, sex and gender as things that are relational and thus constantly renegotiated.**” (Rasmussen, 2007, p. 17). This design concept argues that bathrooms can be used as a pedagogical tool and a site for opportunity to bring people into closer proximity through shared facilities, expose everyone to different people’s practices and identities and therefore normalise and destigmatise those more marginalised people and behaviours.

Let's start with the loos...

Public bathrooms should be safe, accessible, and welcoming for all. The planning of this bathroom design is organised in 4 areas ranging from public to private. The more public zones aim to keep encourage temporal, social populations and enhance surveillance. The most private Zone is completely enclosed for complete privacy. The planning of zoning uses research from group, 'Stalled!' a collective of architects and activists lobbying for safer, gender inclusive bathrooms.

- zone 1: public**
social waiting space
connection to hallway
seating & benches
- zone 2: semi-public**
grooming
benches & hooks
power points
- zone 3: semi-private**
washing space
semi-hidden
sinks and benches
- zone 4: private**
floor to ceiling walls
lighting, drainage, extraction
toilet, sink, shelves
benches, hooks for changing
accessible handrails
sanitary products

DESIGN PRINCIPLE	DESIGN STRATEGY	DESIGN OUTCOME
INCLUSIVITY	<ul style="list-style-type: none"> gender neutral bathrooms to be simple and welcoming representative signage to welcome all people supplied sanitary products because they should be integrated accessible handrails so not to be an unconsidered add-on 	EQUALITY
OPENNESS	<ul style="list-style-type: none"> open entrances / no doors waiting benches to increase social activity and population semi-private grooming areas, full height mirrors for people to check themselves 	TEMPORAL POPULATION SURVEILLANCE SAFETY
PRIVACY	<ul style="list-style-type: none"> fully enclosed stalls full height walls benches & hooks for people to changes and rearrange basins & taps to wash generous spaces for accessibility & assistance 	SAFETY COMFORT DIGNITY

“toilets don’t just tell us where to go; they also tell us who we are, where we belong, and where we don’t belong.”

- Mary Lou Rasmussen (2007)

BATHROOM SECTION 1:50

“

So let's just build some single stall, gender-neutral bathrooms with a little bench for getting changed into your gym clothes. We can't change the world overnight for our children, but we can give them a safe and private place to escape that world, if only for just a minute.

This we can do. So let's just do it.

And if you are one of those people who is sitting out there right now already coming up with a list of reasons in your head why this is not a priority, or it's too expensive, or telling yourself that giving a trans person a safe place to pee or get changed in supports a lifestyle choice that you feel offends your morality, or your masculinity, or your religious beliefs, then let me just appeal to the part of your heart that probably, hopefully, does care about the rest of the population. If you can't bring yourself to care enough about people like me, then what about women and girls with body image issues? What about anyone with body image stuff going on? What about that boy at school who is a foot shorter than his classmates, whose voice still hasn't dropped yet? What about people with anxiety issues? What about people with disabilities or who need assistance in there? What about folks with bodies who, for whatever reason, don't fit into the mainstream idea of what a body should look like? How many of us still feel shy or afraid to disrobe in front of our peers, and how many of us allow that fear to keep us from something as important as physical exercise? Would all those people not benefit from these single stall facilities?

We can't change transphobic minds overnight, but we can give everybody a place to get changed in so that we can all get to work making the world safer for all of us.

- Ivan Coyote

EVERYONE can be the boss

welcome all.

"Sex refers to the biological and physiological characteristics that define men and women. Gender refers to the socially constructed roles, behaviours, activities, and attributes that a given society considers appropriate for men and women."
- World Health Organization

we know this.
CATCH UP, ARCHITECTURE...
what if you don't fit neatly into a box?

**SPATIAL AGENCY MEANS
GIVING PEOPLE AUTONOMY
TO SHAPE THEIR SPACES
NOT HAVING THEIR SPACES
SHAPE THEM.**

This zine aims to translate the opportunity architecture brings to give space to everyone through simple, meaningful spatial interventions for anyone to appropriate.

how does this work?

The following pages include 'how to' diagrammatic guides to retrofitting your own public bathrooms to be more welcoming to all. Drawings are presented as instruction manual diagrams with few architectural conventions to make the content accessible and readable to all.

DESIGN PRINCIPLE	DESIGN STRATEGY	DESIGN OUTCOME
INCLUSIVITY	gender neutral bathrooms to be simple and welcoming representative signage to welcome all people supplied sanitary products because they should be integrated accessible handrails so not to be an unconsidered add-on	EQUALITY
OPENNESS	open entrances / no doors waiting benches to increase social activity and population semi-private grooming areas, full height mirrors for people to check themselves	TEMPORAL POPULATION SURVEILLANCE SAFETY
PRIVACY	fully enclosed stalls full height walls benches & hooks for people to changes and rearrange basins & taps to wash generous spaces for accessibility & assistance	SAFETY COMFORT DIGNITY

SHOPPING LIST:

BUDGET:

	EACH:	TOTAL:
STALL DIVIDERS FOR 2 STALLS:		
☐ CARINYA ZINC ANGLE BRACKET x 20	\$1.68	\$33.60
☐ POLYCARBONATE SHEET x2	\$57.50	\$115.00
BENCH FOR 2 BENCHES:		
☐ PINETRIM 24x24x900mm x5	\$6.55	\$32.75
☐ HINGE PLATE x6	\$2	\$12.00
☐ LATCH x2	\$2	\$4.00
EXTRAS:		
☐ COAT HOOKS	\$13.04	\$26.08
☐ SCREWS	\$10	\$10.00

\$209.78

so, what have we learnt?

Design & Discussion

The primary strategy driving the design is for spaces to be arranged along a scale of private to public. The most public spaces are at the entrance to the bathroom which curves off a main corridor without any doors or borders. Here, a waiting bench should increase the population of people in the vicinity while the curved walls still obstruct clear vision into the space. The washing and grooming area becomes semi-private, again by the curved walls. This area is intended to work as a secondary thoroughfare allowing people to pass through, wash hands or check themselves in the mirror before passing through back to the main corridor. Finally, the stalls themselves are full height and fully enclosed allowing for complete privacy when in use. They each include shelves to place loose objects, a bench and hooks to help when changing or organising a bag, handrails for accessibility, access to sanitary products,

individual bins, sinks and mirrors. Stalls are to be well lit, each including individual extractor fans, waterproof surfaces for easy cleaning, sloped floors towards a central drain and generously sized at 9m². The intention is to create a safe, comfortable and functional space in which a range of practices should be able to occur.

In the previous drawings, the colours act as a key to communicate the private to public spaces rather the final intended colours – these would be adaptable and selected once the context was known. Initial sketches and iterations formed through drawings done with makeup products on acrylic. The intention being to express and loosely explore the messiness of the bathroom site, the potential activities occurring and the architectural / spatial requirements.

Reflection & Conclusion

LEARNINGS:

This exercise has made me aware of how political bathrooms are and how much depth and consideration should be included through detailing and design. While this was more of a spatial planning exercise, the scope of potential effect from materiality, detailing, texture and fittings is enormous and could certainly be used to strengthen the design intentions.

PROCESS:

This design work was conducted before I had ethics approval for the workshops and therefore is limited on student input. I chose to explore this site without the student input due to the vast amount of literature on the subject, however student input would have made the design response localised and increased its validity.

DESIGN:

The curved walls make for some inefficient and awkward 'leftover' space. Although this was iterated many times, it was decided that these resulting leftover spaces could be used as semi-private nooks for grooming and resting. However, these nooks are small and niggly to navigate making them unhospitable to larger people or wheelchairs. These bathrooms are also generously sized and would require more space within school property. I do not see this as a limitation or design flaw and instead I argue that it is important for bathrooms to be designed generously.

SITELSS CONCEPTS

SITE #1:

SITE #2:

SITE #3:

SITE #4:

BATHROOMS	154
COSY COMMON SPACE	176
SOCIAL CORRIDORS	188
PLAY SPACE	200

common space

Design + Discussion

Schools frequently lack space for common rooms that can accommodate all students. The common room, typically reserved for senior students, is shared space designated to a group of people to share some ownership and responsibility for. For many existing schools, expansion to include more of this type of space is financially unfeasible. Therefore, this section of design will explore both the principles and strategies for creating 'cosy common space,' before designing a zine to guide students in the creation of their own common spaces.

It was expressed with great emphasis across all three workshop discussions that students need spaces to call their own within their schools – a place to go during non-class times. Students expressed a desire for spaces to be warm, comfortable and adaptable to different activities. This design process started with an initial concept design for a site-less common space designed for multiple activities and a range of social space, respite space and independent study space. The intention of this concept design was to create

space for students to gather, interact, organise and have collective agency in.

The zine that was produced aimed to take the strategies explored through the concept design and make them applicable to existing classrooms. The zine explains how students should get prepared to lobby for use of a classroom as common space during lunchtimes, and also provides potential spatial configurations of furniture and their different effects. The intention here was that the design emphasis was more on how to organise people in creating their own spaces, rather than a building or spatial design itself. The intention is that the zine (or architect) could act as a catalyst for people in making their own space through the process of working collaboratively.

GIVE US A PLACE TO VALUE // BE VALUED
 GIVE US A PLACE TO EAT // WITH DIGNITY
 GIVE US A PLACE TO MEET // INTERACT
 GIVE US A PLACE TO BE // RESPECTED
 GIVE US A PLACE TO HANGOUT // CONNECT
 GIVE US A PLACE TO MEET // INTERACT
 GIVE US A PLACE TO REST // BREATHE
 GIVE US A PLACE TO STOP // COLLECT
 GIVE US A PLACE TO VALUE // BE VALUED
 GIVE US A PLACE TO EAT // WITH DIGNITY
 GIVE US A PLACE TO MEET // INTERACT
 GIVE US A PLACE TO BE // RESPECTED
 GIVE US A PLACE TO HANGOUT // CONNECT
 GIVE US A PLACE TO MEET // INTERACT
 GIVE US A PLACE TO REST // BREATHE
 GIVE US A PLACE TO STOP // COLLECT
 GIVE US A PLACE TO VALUE // BE VALUED
 GIVE US A PLACE TO EAT // WITH DIGNITY
 GIVE US A PLACE TO MEET // INTERACT
 GIVE US A PLACE TO BE // RESPECTED
 GIVE US A PLACE TO HANGOUT // CONNECT
 GIVE US A PLACE TO MEET // INTERACT

HOW TO:

make a cozy space

A space where everyone has an **opportunity** to contribute, is a space where everyone is **included**, **represented** and where collectives thrive from their **diversity**. 'Cozy spaces' intend to be spaces where people feel a **belonging** to. Where people can be **comfortable being themselves** / **expressing identity**.

3. Allow for agency.

Allow and encourage users of the space to reconfigure and adapt it to their needs.

4. Create diversity in space.

Allow a range of formal and informal spaces for individuals and groups.

FORMAL learning environments
 INFORMAL learning environments

what's a cozy space?

Students need spaces within their school where they feel a sense of belonging to. They need to feel at home and comfortable to take a break, work quietly, socialise and experience the 'in-between' moments of a school day.

it's the in-between spaces, where students pause, interact & connect to really get to know themselves and develop their identities.

in-between spaces: hallways, common rooms, play spaces, toilets, courtyards.

SPATIAL AGENCY MEANS

GIVING PEOPLE AUTONOMY

TO SHAPE THEIR SPACES

NOT HAVING THEIR SPACES

SHAPE THEM.

This zine aims to translate the opportunity architecture brings to give space to everyone through simple, meaningful spatial interventions for anyone to appropriate.

how does this work?

The following pages include 'how to' diagrammatic guides to creating a 'cozy space' within a school. In this guide, 'architecture' goes beyond the built form and will be used as a verb rather than noun. Here, 'architecture' is the framework setup to encourage people to organise, occupy and bring life to their space.

5 Soft furnishings.

Lush matts and rugs encourage people to sit on the ground, stretch out and move their bodies.

6 Create security.

Including lockers makes this space feel like a 'home base.' Physical & percieved security.

7 Drink teas.

Having a station for hot drinks gives people something to do in the space & a place to bump into people.

Providing tea in a respite space is also a great way to make people feel calm and welcome.

8 Embrace the natural.

Indoor plants are something everyone needs to contribute toward to keep them healthy.

Fig. 49. Poster on back of unfolded cosy space zine

so, what have we learnt?

Reflection & Conclusion

LEARNINGS + PROCESS:

The process of working through architectural concept design to then extrapolate actionable transferable learnings to present through the zine, was critical to understand and practice for this research. This section of the design and resulting zine encapsulates the essence of the role that I believe the architect should be transitioning into. One set of skills is required to design the space, but another skillset in communication and dissemination is required to make that space accessible to a larger range of people. I believe that the architect needs to be willing to remove themselves from the position of supreme leader or lead designer and instead become an expert in facilitation. While the zine itself does not hold particularly sophisticated ideas (it is my first attempt), I believe that the process holds great potential in unlocking and expanding how we work.

DESIGN:

While the zine itself was the most important component of the design for this section, more iteration and work was required in the front half through the exploration of the spatial properties. This would have resulted in a better understanding of the architectural and spatial opportunities to then report on through the zine. It could be said that the zine, in places, began to wander too far away from the architectural realm.

SITELSS CONCEPTS

SITE #1:

SITE #2:

SITE #3:

SITE #4:

BATHROOMS	154
COSY COMMON SPACE	176
SOCIAL CORRIDORS	188
PLAY SPACE	200

social corridors

Design + Discussion

The corridor networks connecting classrooms, gyms, offices and all other important spaces within a school act as the thoroughfare and the lifeline for how the buildings operate. However, these in-between spaces are so frequently unattended to and often only considered by designers for their proportions regarding regulation and their materiality regarding durability. It came with some surprise to be reminded by current students across all three workshops, that these corridors are where students are left to occupy during their free time – this is their space. During lunchtimes when students get locked out from classrooms and other indoor spaces, students flock to the corridors and instead meet for lunch ‘outside room 51.’ These same corridors that are run to their bones by 100s of dense school shoes scuttling between classes are where students find a quiet place to eat their lunch together. And these unconsidered spaces are often damp, cold, smelly, sometimes unsafe (bullying) and uncomfortable.

Problems of representation and respect arise here as this spatial issue so clearly is telling students their place is on the floor, the bottom of the chain, not worthy of a clean, safe place to eat their lunch.

However, there is opportunity in this site and situation.

The following concept designs explore the potential social opportunities and ways in which corridors can to their fullest potential be claimed by students. Some of the design strategies explored include, proportions of width and height, materiality, connection to natural light and air, indoor / outdoor corridors and most successfully, corners, edges and nooks. Speculative concept designs are site-less and primarily explore unbuilt corridors aiming to develop the strategies and ideas to be built into new school and corridor designs.

DESIGN PRINCIPLE	DESIGN STRATEGY	DESIGN OUTCOME
CROSS PROGRAMMING	<ul style="list-style-type: none"> benches nooks individual study spaces spaces for group hangouts a place to eat lunch places to wait somewhere to meet 	ALTERNATE LEARNING ACTION SPACES
MATERIALITY DETAIL	<ul style="list-style-type: none"> soft materials for sitting places durable floor materials interesting forms, shapes, colours, textures to bring character interesting forms, shapes, colours, textures to bring character consideration of proxemics & spatial proportions connection to outdoors windows for natural light 	WELL BEING RESPECT DIGNITY REPRESENTATION

COUNSELLOR'S WAITING ROOM

LOCKED OUT AGAIN

POPULAR LUNCH SPOT

POPULAR LUNCH SPOT

WAITING SPACE FOR CLASS

POPULAR LUNCH SPOT

take a minute
to pause and
catch up

break out nooks.

personal study nooks.

PLANS:

let the outside in, let the inside out. blur the boundary.

semi-private nooks, blurred edges.

PLANS:

balcony landings.

indoor outdoor stairs.

so, what have we learnt?

Reflection & Conclusion

LEARNINGS

As this series of concept designs is focused on the site-less, it became a lot easier to imagine the possibilities of how corridors might operate. However, this quickly began to seem frivolous and unfeasible to existing schools. The main variable through these design explorations was proportions of the corridor, height x width. As existing corridors are typically designed for efficiency as a thoroughfare, typically, more space is needed for the activations to happen without taking up space required during busy transit times.

PROCESS + DESIGN

After new, site-less corridor designs were explored, the iteration stopped due to realisation of importance of additional space for these ideas. While this process yielded interesting ideas to incorporate for new-builds, exploration of how to activate existing corridor didn't progress. It became apparent that rather than trying to activate existing corridors, it would be best not to influence students to use these spaces as social areas and instead the focus should be on having the previously explored common spaces available. Rather than trying to make a bad situation better, the most effective impact would be made through providing an alternative.

SITELSS CONCEPTS

SITE #1:

SITE #2:

SITE #3:

SITE #4:

BATHROOMS	154
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SOCIAL CORRIDORS	188
PLAY SPACE	200

precedent

Play Mountain by Isamu Noguchi

Sculptor Isamu Noguchi's fascination with how art could sculpt and form urban landscapes began back in the 1930s. Working primarily in sculpture, Noguchi had been fascinated by the way people interact with the earth and how this relationship could make the world a better place. Primarily, his interest fixated on playgrounds or play landscapes that were abstract and non-prescriptive. Spaces and objects that required imagination and freedom to play. Proposing landscape schemes for urban NY blocks and sculptural play equipment,

Noguchi's philosophy was that children didn't need instructions for how to play and instead, his work resisted prescribed activities. Noguchi's surreal and sophisticated propositions influenced a shift away from replicated playgrounds and instead argued the potential and importance of free play for in urban centres (Larrivee, 2011).

play

ISAMU NOGUCHI

1970s

“The playground, instead of telling the child what to do, becomes a place for endless exploration, of endless opportunity for changing play”

Isamu Noguchi

content
unavailable

Isamu Noguchi:
Playscapes at Piedmont Park,
Atlanta

content
unavailable

content
unavailable

content
unavailable

precedent

Cas Holman

Cas Holman is the founder of independent toy company *Heroes will Rise* and a Professor at Rhode Island School of Design. While technically working as a toy designer, Holman is considered more of a play designer. Some of her most notable designs include the Big Blue Blocks and the Rigamajig, both kit-set toys designed for children to build their own playgrounds and worlds working imaginatively and collaboratively. Holman's work creates play opportunities that do not have rules, goals or set outcomes – avoiding repetitive tasks and potential feelings of lack of accomplishment. Instead the aim is to create opportunities for unconventional exploration through providing prompts rather than instructions for play. For example, Rigamajig, is a kitset of 265 parts of construction material specifically designed

for children's ergonomics. The pieces include planks, S hooks, wheels, ropes and a selection of fixings that allow pieces to be connected. Each fixing is black, resembling real construction materials, and they are sized to work for a child's hand without requiring any other tools. Through appropriate use of scale and weight, children playing with Rigamajig feel a sense of satisfaction and accomplishment. Holman says, "The reason I design for children is I'm designing for people. These are the people that are going to make the world suck or not suck. Good toys make good people." Along these same lines, it is hoped the following design exploration into playful spaces allows young people to feel a sense of belonging, ownership, representation and accomplishment.

precedent

**Margaret Mahy Playground by WSP Opus,
Christchurch, NZ**

play space

Design Intention

An outdoor learning environment that facilitates the social, emotional, cognitive & physical development of young people.

Design Criteria & Aims

Playgrounds are an integral part of primary schools in New Zealand for the social, behavioural, physical and cognitive development of children. They are the spaces that children long to be in during class, where they challenge and express themselves, interact collaboratively, imagine and play. Why does this vital programme of primary schools disappear in high school?

While high school students might not need slides and swings in the same way, they still need space to occupy, and something to do (as identified by the workshop conversations).

The following concept designs will explore playful outdoor learning environments designed to encourage and suggest activities are an important part of learning and development. A more considered, generous and open approach to the design of outdoor space hopes to facilitate

and afford more playful interactions. Providing a range of places for students to go during break times, encouraging them to find things to do, aims to shift energy and attention towards productivity and healthiness, positively setting them up more equally, for increased well-being and success in school.

The play spaces through the following design concepts aim to achieve each of the key themes as developed from the workshop conversations. Strategies are outlined to clarify how the design achieves these criteria and how the design outcome contributes towards creating space for identity development and therefore supports equality in the learning environment.

Workshop Criteria

- 1

SPACES
SUPPORTING
WELL-BEING
- 2

ALTERNATE
LEARNING
SPACES
- 3

ACTION SPACE
THINGS TO DO
- 4

DIGNITY
RESPECT
REPRESENTATION

Design Strategy

DESIGN PRINCIPLE	DESIGN STRATEGY	DESIGN OUTCOME
CROSS PROGRAMMING	<div>in-between space for in-between time</div> <div>play space</div> <div>place to eat your lunch</div> <div>outdoor learning space</div> <div>hangout space</div> <div>exhibition space</div> <div>communication tools</div> <div>meetup space</div> <div>club space</div>	WELL BEING
SPATIAL AGENCY	<div>temporal intervention</div> <div>dynamic space</div> <div>moveability</div> <div>flexibility</div> <div>adaptability</div> <div>spatial frameworks</div> <div>opportunities</div> <div>DIY builds</div> <div>kitsets</div>	ALTERNATE LEARNING
		ACTION SPACES
		RESPECT
		DIGNITY
		REPRESENTATION

OPPORTUNITIES IN PLAY:

EXPLORATION
CREATIVITY
PROBLEM SOLVING
INTERACTION
MUSCLE DEVELOPMENT
BODY CONFIDENCE
CHALLENGES
COORDINATION
SPATIAL AWARENESS
ENGAGEMENT
SILLINESS
BELONGING
INSPIRATION
INDIVIDUALITY
EXPRESSION
SURVEILLANCE
ACTIVENESS
PLAYFULNESS
FUN

spatial agency for identity agency

SPATIAL FORMATION

HOW CAN WE USE
ARCHITECTURE TO
STRENGTHEN A
CONNECTION BETWEEN
SPACE AND SELF

IDENTITY FORMATION

HOW

architects have...

some control

- spatial agency
- emotional-investment
- DIY builds
- kitsets
- teamwork
- problem solving
- social interaction
- community
- pride
- ownership
- customisation
- adaptability
- room for expression

WHERE

less control

- a place for respite
- social spaces
- corners
- tables
- space to explore
- space to play
- sites of construction
- space to build
- space to meet
- space to learn

WHY

ideal effects

- ownership
- representation
- opportunities
- agency
- confidence
- improved well-being

**LET'S GET YOUNG PEOPLE MOVING,
GROOVING AND CONNECTING
MIND WITH BODY.**

let's play...

STRETCH

CLIMB

TWIST

PULL

HANG

MOVE

← play along a scale →

HIDE AND SEEK ANYONE ?

CLIMB ON UP !

come join us at the
HOUSE
CLUB
?

with me? share
lunch

so, what have we learnt?

Design & Discussion

The exploration of play spaces begun by considering the 'verbs' of traditional play, to identify how students would potentially move their bodies during play, and frame further exploration through the actions themselves, rather than the activities. The aim was to ensure concepts would avoid prescriptive, activity-focused play and instead aim for open-ended, imaginative and explorative play. The imaginative play influenced the drawing style for the following design concepts. Drawings

were intended to be explorative, not prescriptive, approachable and ultimately playful. Imprecise hand drawings intended to make viewers (students) feel encouraged to imagine, explore and design their own play spaces.

Design concepts primarily explored shapes, colours, visibility, texture/materiality and potential occupation / programme rather than overall composition, form or structure.

Reflection & Conclusion

Through this exercise the limitations of attempting to draw the range of ways people could play with various structures became strikingly apparent. Trying to predict the behaviour of students was meant to be avoided. A more appropriate approach for concept drawings would be to continue exploring the ways people might interact with a structure at the detail scale. For example, asking the question; how might a detail be designed to allow a maximum number of ways for

people to use it or play with it? It is not possible to predict all of the ways people will appropriate a space, but it is possible to design spaces which invite opportunities and provide huge potential for exploration and imagination to thrive.

SITED PROPOSAL

DEVELOPED DESIGN

INTERVENTION PROPOSAL

site

Rongotai College

After exploring a range of site-less concepts to understand how to use specific design strategies and ideas, concepts were refined and synthesised into one developed design intervention for the site of Rongotai College. This was catalysed from a comment at the workshop with Rongotai students about an issue of disconnected buildings making for unpleasant trips between classes in the rain. Along with this, the intervention aims to address the lack of places assigned for student use, especially outdoor space. Rongotai College was also selected as the site to respond to because it is the lowest decile high school in Wellington, and because the other school had recently been redesigned and built. Finally, as has been the aim throughout the research, Rongotai College appeared to have significant potential for an intervention to make the greatest impact.

The suburb of Rongotai, adjacent to Kilbirnie is located to the South East of Wellington and hosts Wellington's airport. Between Kilbirnie and Rongotai, there are 2 Primary Schools, 1

Intermediate School and 3 Colleges or Secondary High Schools. These suburbs become the 'central hub' for young people of Wellington's Eastern suburbs before and after school hours. However, a lack of free activities and urban space for young people only exasperates stereotypes of bored, loitering, trouble-making youth. With a lack of welcoming public space for young people and things for them to do, social issues can arise. Kilbirnie has in the past been a site susceptible to issues of bullying, vandalism and theft. Through workshop conversations it became apparent that students now opt to spend afternoons at home in front of screens rather than risk bullying and being told off in public space.

The following site analysis uses maps and photographs to depict the area and context. The primary analysis will be of the social and contextual climate, covering public spaces for young people, activities for them to do, potential hangout spaces and opportunities.

School Buildings

St Patrick's College

All Boys year 9 - 13

context

Rongotai, Kilbirnie & Lyall Bay

Things for young people to do around here:

- Sports fields (Rugby, Cricket, Soccer)
- \$ Community Centre
- \$ Aquatic Centre
- \$ Recreation Centre
- Library
- \$ Children's Bookshop
- \$ Sports Centre
- \$ Cafes

Evans Bay Intermediate School

Co-ed years 7 - 8

St Patrick's Primary School

Co-ed years 1 - 8

St Catherine's College

All Girls year 9 - 13

Rongotai College

All Boys year 9 - 13

Lyall Bay Primary School

Co-ed years 1 - 6

So, what's the public space like?

Where should we hang out after school today?

Piece 4: Speculations

A play in the park?

SOCIAL GARDENS

Fig. 70. Garden spaces at Rongotai College that appear uninspiring, uninteresting and limited in options for use

INFILL CORRIDORS

Fig. 71. An existing infill indoor/outdoor corridor built to shelter students when moving between classes

PLAY SPACES

BASKETBALL COURTS

Fig. 72. Existing places to play around the school that appear uninspiring, unwelcoming and limited in play options

Fig. 74. Built environments that appear unconsidered and uncared for

Existing Social Gardens

programme

Design + Discussion

Through exploration of a range of site-less spatial programmes, the resulting, most successful outcomes and ideas have been synthesized into a proposed developed intervention design. Similarly, those missed opportunities and ideas that arose through the design process are now integrated. There are an array of disclaimers that should come with this proposed design but most importantly, it should be noted that this proposal is not a final, complete or polished design and it is not intended to be read as the most important part of this research. Instead, the following design and the way it has been represented, aims to illustrate the possibilities and potential opportunities that might result from following a similar, research-led, collaborative, participatory design process. The documented process is the main outcome of this research, and not the resulting imagery or design proposal.

Representation of the proposal is also speculative and celebrates the people interacting and using the intervention. A diversity of people are shown to acknowledge the much needed (but still speculative) shift towards making schools co-ed and uniform-free again, supporting self-expression for young people.

THIS INTERVENTION IS PRACTICAL

This intervention aims to speculate a practical possibility for Rongotai College in the near future. It has been designed sympathetically to the existing context by avoiding major redevelopment or disruption to the existing buildings or site. It intends to build upon the existing through seeking out spatial opportunities.

THIS INTERVENTION IS EFFICIENT

The financial cost of construction has sought to be minimised through consideration of materiality and detailing along with attention to durability, flexibility and adaptability for future repurposing of material. The intervention aims to be efficient, not only in cost for spatial return, but through a generous approach to design hoping for maximum social and well-being outcomes for students.

THIS INTERVENTION IS A FRAMEWORK

The proposed intervention should be considered more of a framework or backdrop, with meticulous attention to detail, materiality, configuration and tactility required to maximise the opportunities for students to interact, appropriate and adapt their space. It is hoped that this process of appropriation is playful and fun and results in feelings of pride and belonging. Design features that maximise agency and opportunity have been privileged, over attempting to predict the way students will play and interact with the space.

THIS INTERVENTION HINGES ON PARTICIPATION

This intervention comes to life through its occupation – the key component is participation. The intervention is not complete once constructed, rather, it is just the beginning. Students adding to, customising, building upon, playing with and interacting with the structure becomes the interventions greatest design feature, thus aiming to privilege people over the building, and flipping the hierarchy built into how we consider architecture. The value and success of the intervention hinges on the experience of those using it over the quality or aesthetics of the constructed outcome. The students are vital to the brief making, concept generation, construction and occupation, making this intervention truly their creation and representative of them as a collective.

THIS INTERVENTION IS NOT TRANSFERABLE

The intervention itself has been designed specifically for the site of Rongotai College, responding not only to the physical context but primarily driven by the social context. While the intervention itself should not be considered transferable to other schools, the process certainly is, and it can be imagined that many of the ideas would be applicable for other schools and students.

REPRESENTATION

The intervention, along with the representation, does not claim to be polished or complete. It aims to provoke opportunity and imagination of what the space could be through its occupation and adaptation in time. It aims to be presented through playful, approachable, legible and engaging imagery, primarily presented through perspective drawings as those that are easiest to read.

programme diagrams

Fig. 76. Programme rated against design strategies. Diagram to show distribution and spread.

Fig. 77. Programme x design criteria to show potential for achieving each criteria across the board

01:
Relationship Building

Site Plan Key:

- **Rongotai College Buildings**
- **Surrounding building footprints**

01.01:
Relationship Building

Relationship building took place in the initial meeting with staff, followed by the workshop with students in their library.

01.02:
Thorough Site & Cultural Research

Walking tour of all of the lunch-time hangout spots with students and staff.

01.03:
Problem Analysis

Identifying problems of disconnected buildings and lack of sheltered outdoor areas / places to hang-out during lunch time.

01.04:
Collaborative Brief Building

Collaborative brief building / discussion of opportunities, challenges and problems on site.

RONGOTAI COLLEGE SITE PLAN

Fig. 78. (above) Plan of intervention proposal

Fig. 79. (below) Planometric, perspective and elevation of the intervention proposal

Perspective

Elevation

Fixed: Steel bracket bolted into concrete ground and through timber post

Fixed: 45x45 Steel box beam

Fixed: steel plate louvers

Existing classroom entrance roof structure

wire threads to post

scaffold to column

scaffold connection

post bracket

post bracket exploded

column footing

CORRIDOR ISOS

beams to post to rafter exploded

beams to post to rafter

FOLD OUT CORRIDOR

STEP 1

fully enclosed

structure exposed

roof folding out

roof folding out

STEP 2

roof extended

legs fold out

legs fold out

STEP 3

pulley system

roof exploded

fully extended

Fig. 85. Perspective of fold out corridor under construction

BATHROOMS

Fig. 87. (left) Plan of bathrooms
Fig. 88. (right) Section through bathrooms

 

INTERACTIVE DETAILS

Fig. 89. (left) Sectional oblique isometric detail of louver on interactive corridor module

Fig. 90. (middle) Section detail of interactive pulley on corridor module

Fig. 91. (right) Plan detail of interactive double swing door corridor module

Fig. 92. Perspective through interactive corridor at entrance to bathroom

Fig. 94. Perspective from playable scaffold into communal outdoor kitchen for shared lunch and food preparation

on the menu today...

**SHARED LUNCH
THIS FRIDAY**

bring something
for the grill!

Can someone teach
me to dance?

are you interested in:
**ARCHITECTURE?
HIGH SCHOOLS?
GENDER EQUITY?
FEMINISM?**

10 years, 100+ members, 100+ projects, 100+ ideas!

Read about 10 years and 100+ ideas and see how we've grown. We're looking for new members to join our team. We're looking for new members to join our team. We're looking for new members to join our team.

Friday 2nd August
Lunchtime
In the library

INTERACTIVE SCAFFOLD

Fig. 95. Isometric detail of interactive, light and easy to manipulate scaffold connection for students to use to reconfigure playable scaffold area

**DIY MOVEABLE
SCAFFOLD CONNECTION**

50mm

SCAFFOLD PLAY

a playable model

not a model of a design, not an object to be looked at.

To accompany the images, a physical model of the corridor structure was made at scale 1:15. The model was more a way to test the design philosophies and ideas rather than another mode for communicating the design in 3D. The model was built to a scale large enough to allow students to engage with it through clipping and unclipping elements and creating new elements to add. The framework of the corridor structure was modelled and included along with examples of pieces of cladding that could be fixed onto the structure. These cladding pieces are made from photocopies of answer booklets collected from workshops and covers of the books which I have read for this research. The idea is that the pieces needed to complete this model (and design) are the inputs and participation of a collective.

The plinth for the model is a workshop-table. Engraved into the table top is information about participatory design and ideas about how to engage with the model. Hung off the table are copies of the zines created throughout the year, answer booklets and other workshop material creating a holistic 'workshop station.'

The intention for the model was to take it to the students at Rongotai College, along with the images of the intervention proposal, and to invite students to engage with, test the ideas and critique the proposal.

The people who design

the built environment

should be as diverse a group

as those who use it.

*Parlour Symposium -Transformations: Action on Equity
Melbourne, November 2019*

MODEL CLADDING

Fig. 98. Photograph of trimmed book covers and workshop answer booklets used as cladding for the model

PHYSICAL MODEL PLAN 1:5

CORRIDOR STRUCTURE
MODEL

TABLE FRAME

**PHYSICAL MODEL
ELEVATION 1:5**

160

AA

135

SECTION AA

My admittedly *naive* recommendations

This proved to be an important exercise and is hoped to work as a tool for architects, act as a key finding of the research and again, support actionable and accessible change.

NZIA DESIGN PROCESS

THE REVISITED

what if we **reconceptualised** the
NZIA's 'seven clear stages'
of an architecture project
to be more
equitable & inclusive

My recommended amendments:

NZIA Stages:

“

01 Predesign

After an initial meeting (or meetings), your architect will start to gather key information such as the certificate of title, drainage plans and zoning and town planning information. Sometimes you, as the client, may have some of this information or can help collect it, but this should be clearly discussed to avoid any confusion. The architect may also need to have your site surveyed, on your behalf, to accurately define contours and boundaries. Issues with regard to existing planting, water courses and soil type may also need to be addressed.

01.01:

Relationship Building

Meet, greet and get to know your client. Visit their site, get to know them, their values and ambitions for the project.

01.02:

Thorough Site & Cultural Research

Spend time researching the site and land for the project. Be sure to understand the cultural significance, history and stories of the place.

01.03:

Problem Analysis

Be sure to unravel the opportunities and problems of the site and suggested brief. Try to take a holistic design approach to the issues and solutions that may not be purely architectural. This might be best done through workshopping and interviews with user and clients.

01.04:

Collaborative Brief Building

Work with the clients and help them develop a brief that best responds to the project problems. Doing this collaboratively means you can input your specialist understanding with their user understanding.

02 Concept Design

02 Concept Design

When the project's parameters are established, the architect will begin developing concepts. These will be influenced by project scope, budget and your individual requirements. During concept development an architect will investigate a number of ideas. It is not unusual to receive a number of alternative ideas for your project, as your architect will be thinking about broad issues, looking for advantages of site and setting and ways to design more efficiently. These alternatives may challenge your thinking but be open-minded and communicate clearly about what you do and don't like. It is always helpful to revisit your brief to assess whether any concept meets your stated objectives.

understanding.

02.01:

Other influences:

All of the information extracted from the research and conversations with users and clients.

02.02:

Concept Generation:

Involve users and clients in developing concepts. Try participatory design workshopping and be sure to ask appropriate questions and exercises. Exercises such as 'design your idea...' are not often effective. Instead try 'what are three things about the existing building that you like or would change?'

03 Developed Design

When a concept is agreed upon, your architect will test the ideas, refine the details and shape the final design. Developed design is a key phase – it's your last opportunity to refine the overall nature of the project before planning commences. If you have additional requirements now is the time to table them. Your budget will come into play during developed design. Think about priorities in terms of time, quality and cost and allocate authority for final decision-making. You and your architect may want to engage a quantity surveyor to estimate costs. While it is difficult to predict the final cost of a building, your architect and the external specialists they collaborate with are trained to identify all potential costs and will form an estimate based on that knowledge. Be honest about your budget and work with your architect to find solutions if necessary. Architects can also play a role in securing resource consent, if needed, for your building. However, it may be necessary to engage with specialists or consultants to secure the requisite consents for you.

03.01:

Concept Presentation:

Be sure to keep clients and users up to date with concepts. Once you have a few concepts ready, be sure to present them using communication strategies that are easy to read and understand. These include perspectives and plans and renders. Be sure not to be too precious with this how these are presented, you want to make clients and users feel welcome to change, adapt and update the concepts.

04 Detailed Design

Once resource consent is approved, your project will progress to the detailed design phase. This means your architect will advance your design to the level of detail that allows a construction contractor to assess the full scope of the project. This will include construction details, materials, components, systems and finishes. Be sure to revisit the Agreement for Architects Services to make sure all aspects of the contract are included in the detailed design.

An architect is trained to understand the building consent process – they know the jargon and technical issues which you may not fully grasp. Often an architect will communicate with the Building Consent Authority and foster understanding of your project from an early stage. Your architect will have an in-depth understanding of the current state of the construction industry and can be an invaluable guide in choosing a quality builder and other contractors to execute your design. Your architect can help with the tendering process, if that is the procurement method, and can take your particular needs into consideration when choosing a contractor.

04.01:

Detail communication:

It's great if you can get clients and users involved in the detail design phase too. This is an opportunity to educate people about why good architecture matters and the value in hiring an architect. Try communicating details in unconventional drawing styles so they're legible to non-construction industry people. This could be done as a series of how-to guides explaining how key details work and fit together.

05 Contract Admin

05 Contract Admin

An architect is trained in the management of contractual and financial transactions during the construction of your building. Projects do change and there are sometimes unforeseen elements that may require contractual consideration – your architect is well placed to help with such developments. Let your architect know if you have any particular preferences about the contractual nature of your project or issues with financing. There are comprehensive guidelines on how NZIA architects should charge their own fees and administer payments for others. It is important for you to read and understand these recommendations. Generally, you will pay fees monthly or at set stages of the design process. Architects will set their fees according to the level of involvement they have in your project, as defined by the Agreement for Architects Services.

06 Project Observation

An architect can play an important role in overseeing the construction phase of your project with onsite visits and monitoring the construction contracts that are in place. It is your choice how deep your architect's onsite involvement is. When determining their role onsite, take their relationships with other contractors into consideration. You may decide it is necessary for your architect to work onsite regularly, or it might be sufficient for them to visit and monitor the project periodically.

06.01:

Construction:

Where possible, get yourself, your team and your clients and users involved in the construction process and out on site. Although this might be a health and safety nightmare, do your best to navigate it - getting users involved helps create a connection and pride to the outcomes.

07 Completion

When the main contractor advises your architect the project is practically complete (some minor details may remain) your architect can assess the construction and provide a detailed list of remaining work. Your architect will collect all trade warranties from the main contractor and will secure a Code Compliance Certificate for you. At this point in the project, your architect will also help administer final payments to contractors and issue the main contractor with a Defects Liability Certificate.

08.01:

Celebrate!

Roof shout's are great and so important! Celebrate the relationship you've created and the wonderful spatial outcome. Show the clients your pride in the project and ensure they too see this as a significant achievement to be proud of.

so, what have we learnt?

Reflection & Conclusion

PROCESS

The workshop discussions were critical to understanding the context, and forming the programme and brief. However, more workshops, student input and testing during the concept phase would have further strengthened the direction of the design proposal. The limited student participation through this process was due to time restraints for both the students and myself, along with the time required to gain ethics approval for each updated workshop plan. The proposal now, in its presentable format, needs to be taken to the students for further engagement and iteration.

DESIGN

While the intervention responds to a specific, architectural, sited problem, it could have been more refined at the joins (where the existing meets the new). This is specifically evident around where the corridor roofs meet existing roofs.

More refinement to the design of the sails and roof structures could also present an opportunity for further student engagement and agency. Sails over the middle section are currently designed to shade from sun and light rain. More refinement around weather proofing could allow students to customise the intervention to be more or less weather protective.

01

02

03

04

05

06

07

chapter 07

CONCLUSIONS

Each individual part of this research has been reflected on throughout the thesis. This closing chapter will now provide an overall reflection and discussion.

discussion

So, how might architecture create more equitable learning environments for high school students?

This thesis has firstly, explored power dynamics and hierarchies that might be embedded within high school environments and secondly, critically iterated the design of architectural processes in an attempt to understand how we might disrupt these in spatial outcomes. A feminist approach was utilised as the question was one about equality.

The research focussed more on process than final design as, in order to challenge inequality in the built environment, we must first seek to understand the processes and influencing factors that create this inequality. A key component of this question is around diversity and inclusion, not to say that this could be the answer, but to ask how our existing processes and profession might create action in welcoming, obtaining and utilising it. The turn of phrase, “diversity is being invited to the dance, inclusion is being asked to dance,” is relevant to this research, but might be expanded on to describe the associated dynamics and hierarchies. This research sought to find the words and tools someone might use to invite a person to dance, and much more ambitiously, attempted to consider a place where people didn’t even need

the invitation. Equitable learning environments should be the place where everyone has helped to plan the dance and therefore everyone feels welcome to dance. To dance in the way that they want to, and in a way that is the fullest expression of themselves.

This research focused on young people and high schools, as these are frequently overlooked and lack attention. Young people, specifically people in high school, are often excluded from conversations that affect them. While the focus for this specific research has been on activating existing high school environments, the processes and ideas developed hope to have wider effects on how we practice architecture and how we can start to challenge the hierarchies and power dynamics within our profession and the built environment overall.

The following reflections of each part of this research will describe with more detail the strengths, weaknesses and opportunities of the research in answering the question.

reflection

Piece 1 Processes

The largest limitation (and the greatest strength) of this research overall was the level of engagement with students. While being able to attain ethics approval as early as I did meant I could get student input early on in the research, it also meant I had a lot of information to analyse and process which took time. Following this, more design-led and consultation-based workshops would have greatly strengthened the research but as the year went on, students and teachers became busier with their studies and this became unattainable.

While the workshop conversations unlocked a wealth of information, this format could have been adjusted to accommodate a larger range of ways for students to express their ideas. Oral and written feedback was included and accounted for but more emphasis on the visual exercises could have unlocked further and alternative information.

Piece 2 Sites

The biggest limitation with Piece two also came down to limited student input. This would have allowed a more diverse and comprehensive set of conclusions that were better representative of more people. This could have happened through the initial workshops, however due to time restraints at the workshops and a focus on making sure the activities best suited the participants, this was not possible.

Piece 3 Interventions

While this Piece could be considered potentially the most important and most successful, more effort could have gone into the dissemination of the produced guides and other output. This would have allowed for consultation and user-testing, both strengthening them and further expanding the impact of this research.

Piece 4 Speculations

The biggest limitation of Piece four, again was the limited availability of student input and collaboration on the design. This was an uncontrollable factor given the timing. As the design process began, term four was approaching, and senior students were occupied with externals and exams.

conclusions

The final notes

The hunch presented at the beginning of the thesis is not too far from the answers I wish to conclude with. Feminist spatial theory, processes and practice have all been instrumental in forming my feminist approach to this research and from my understanding, are key in approaching this question.

The key 'take-away' which I have gained through undertaking this research is; equitable processes lead to equitable outcomes. More specifically, equitable processes and ways of practicing architecture lead to diversity in ideas, voices and inputs that result in spaces that better suit a greater diversity of people and learners. For high school students, I believe that it is important to leave tolerance in learning environments to enable them to be involved in appropriating their spaces, encouraging participation in placemaking, and allowing them ownership and control. With agency in space comes agency in learning, and challenging hierarchies and power dynamics in educational spaces encourages agency in identity. Agency in identity for students to feel a sense of purpose and belonging in their schools,

to confidently take control of themselves and their learning, and for every student to have equal opportunity to succeed as the unique person they are.

The second 'take-away' that I have gained is that an intersectional, interdisciplinary approach must be utilised when approaching issues of equality. In creating equitable learning environments, architects must work with policy, pedagogy, school management and community development to generate impactful change. I strongly believe that it cannot be done through architecture alone, and it is our responsibility (as much as other disciplines) to encourage collaboration. We must as a profession, be active listeners, learners and sharers, lobbying to have our inputs heard at policy levels (government and architecture). In this way, we can ensure our knowledge has wide-spread implications, and that our work is accessible and influential, particularly for the schools and communities who lack access to expert knowledge. In our own practice, we must forefront equality before we can expect the resulting built environment to do the same.

further research

What next?

Issues of mental health among young people persist as do issues of diversity and inclusion in the architectural profession and built environment. This research has addressed a contextualised issue for a specific school and set of students. This research as it stands has a clear trajectory from my perspective as author. Imagery of the proposed intervention, along with the model and another workshop plan should be taken to Rongotai College for students to engage with, then critique and provide feedback on. This could then inform further iteration of the design and give validity to the idea of it being built. Finally, research findings

and testing results should be presented and shared as a case study for the potential effects of this type of work to government where information could potentially inform policy writers.

I believe that we must keep researching and practicing alternative ways of doing architecture in order to transform our profession, display its relevance in facing larger issues and its importance in creating healthier, happier, more equitable schools and communities.

spreading the word

Sharing this research

A significant component of this research has been about sharing the learnings with others. During the past twelve months, I have had the opportunity to present the research method and findings and discuss relevant ideas at four separate public events; the Ngā Aho organised Kora Session event in Wellington as part of the NZIA Festival of Architecture, the Transformations: Action on Equity Symposium organised by Parlour in Melbourne, the Architecture + Women Speed Mentoring night in Wellington and, the NZIA Student Design Competition. This thesis was also awarded a Rosemary Seymour Scholarship by the Women's Studies Association (NZ) for its contribution to feminist research. It is my intention to continue to pursue this line of research through the next stages of my career through academic research, practicing in architecture or working in the public sector. There is still much to learn and do in this field, and I intend to pursue it with the greatest of my abilities.

Fig. 103. (above) Presenting thesis research at Kora Session organised by Ngā Aho as part of the Festival of Architecture September 2019

Fig. 104. (left) Closing wrap panel discussion at the Transformations: Action on Equity Symposium hosted by Parlour in Melbourne Nov 2019

Fig. 105. (right) Hosting the Architecture + Women Speed Mentoring event in Wellington Sep 2019

Fig. 106. (bottom) Presenting thesis research at the NZIA Student Design Competition in Wellington Nov 2019

thank you.

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List of Figures

	Pg.
Fig. 5. Our Schooling Futures report headlines	43
[Collage]. Retrived from: stuff.co.nz; nzherald.co.nz; thespinoff.co.nz; nz.educationhq.com; newsroom.co.nz; communityschools.nz	
Fig. 7. Covers of referenced books	61
[Book cover images]. Retrived from: (Awan, Schneider, & Till, 2011), (Brown, 2011), (Rendell, Penner & Borden, 2000), (Shonfield, 2001), (Petrescu, Blundell & Till, 2005), (Grosz, 1995), (Skelton, Francis & Smulyan, 2006), (Colomina, 1992), (Gottfried, 1996)	
Fig. 9. Golden Lane Estate Play Space by muf	83
muf [Golden Lane Estate Play Space]. (2019). Retrieved from http://muf.co.uk/portfolio/golden-lane-estate-play-space/	
Fig. 24. Spread from Ways of Seeing by John Berger	115
Berger, J. (1972). Ways of Seeing [book spread].	
Fig. 33. Spreads from the Inflatocookbook by Ant Farm	135
Ant Farm. (1971). Inflatocookbook [book scans]. Retrieved from https://alumni.media.mit.edu/~bcroy/inflato-splitpages-small.pdf	
Fig. 34. Protest posters - (Griffiths, 2019)	137
Griffiths, K. (2019). Present Tense : Wāhine Toi Aotearoa [posters]. Retrieved from https://designersspeakup.nz/present-tense-gallery/	
Fig. 35. Photograph of posters used in thesis presentations	138, 139
St George, D. (2019). NZIA Student Design Awards [photograph]. <i>Permission obtained.</i>	
Fig. 37. Jennifer Bloomer's dirty drawings - (Bloomer, 1992)	147
Bloomer, J. (1992). Dirty Drawings [drawings].	
Fig. 54. Playscapes by Isamu Noguchi - (Noguchi, 1970)	201
Noguchi, I. (1970). Piedmont Park Playscapes [photographs & drawings]. Retrieved from https://www.hermanmiller.com/stories/why-magazine/the-story-behind-isamu-noguchis-playscapes-in-atlanta/	

Fig. 55. Rigamajig by Cas Holman - (Holman, 2014)	203
Holman, C. (2014). Rigamajig [photograph]. Retrieved from rigamajig.com	
Fig. 56. Imagination Playground by Cas Holman - (Holman, 2010)	203
Holman, C. (2010). Imagination Playground [photograph]. Retrieved from casholman.com	
Fig. 99. Photograph of the model at the Student Design Awards presentation	290
St George, D. (2019). NZIA Student Design Awards [photograph]. <i>Permission obtained.</i>	
Fig. 100. Photograph of the model at the Student Design Awards presentation	292
St George, D. (2019). NZIA Student Design Awards [photograph]. <i>Permission obtained.</i>	
Fig. 102. Presenting thesis research	302
St George, D. (2019). NZIA Student Design Awards [photograph]. <i>Permission obtained.</i>	
Fig. 103. Presenting thesis research at Kora Session organised by Nga Aho as part of the Festival of Architecture	308
Adams-Winch, R. (2019). Ekta Nathu presenting at Nga Aho Kora Session [photograph]. <i>Permission obtained.</i>	
Fig. 104. Closing wrap panel discussion at the Transformations: Action on Equity Symposium hosted by Parlour	309
Bennetts, P. (2019). Closing wrap panel at Transformations [photograph]. <i>Permission obtained.</i>	
Fig. 105. Hosting the Architecture + Women Speed Mentoring event in Wellington September 2019	309
Adams-Winch, R. (2019). Ekta Nathu presenting A+W Speed Mentoring [photograph]. <i>Permission obtained.</i>	
Fig. 106. Presenting thesis research at the NZIA Student Design Competition in Wellington November 2019	309
St George, D. (2019). NZIA Student Design Awards [photograph]. <i>Permission obtained.</i>	
Fig. 107. Photograph of the presentation setup for my thesis research at the NZIA Design Awards Wellington	310
St George, D. (2019). NZIA Student Design Awards [photograph]. <i>Permission obtained.</i>	

Appendix 01

Designing Schools in New Zealand guiding design principle definitions: (Ministry of Education, 2015)

Inclusion:

Spaces that are sufficiently varied and purposeful are most likely to include and support all learners and their diverse needs. Effective spaces cater for a wide variety of needs including collaboration and independent learning, discussion and quiet reflection, direct instruction and independent practice, practical and abstract activities etc. Learners should also be able to see themselves, their progress and their achievement celebrated in the spaces around them.

Agency:

Effective spaces allow teachers to offer learners choices, often around the what, how, where, why and with whom of learning. There is a strong correlation between providing students with agency and outcomes like intrinsic motivation for learning, overall achievement, creativity and higher-order thinking. Spaces which support the ability of students and teachers to customise the layout and control building systems within the space will enhance that agency.

Evidence-based practice:

This means providing spaces that support effective teacher-led and student-led learning, peer and collaborative learning, active, problem-based learning, culturally-responsive pedagogies, and other emerging evidence-based practices.

Collaboration:

Spaces that facilitate and encourage collaborative teaching are likely to lead to improved student outcomes. In addition to improved student achievement outcomes, research suggests other benefits, including increased interdisciplinary and opportunities to pool insights about individual student's learning.

Appendix 02

New Zealand Institute of Architects seven clear stages to an architectural project: (NZIA, 2019)

1. Predesign

After an initial meeting (or meetings), your architect will start to gather key information such as the certificate of title, drainage plans and zoning and town planning information. Sometimes you, as the client, may have some of this information or can help collect it, but this should be clearly discussed to avoid any confusion. The architect may also need to have your site surveyed, on your behalf, to accurately define contours and boundaries. Issues with regard to existing planting, water courses and soil type may also need to be addressed.

2. Concept design

When the project's parameters are established, the architect will begin developing concepts. These will be influenced by project scope, budget and your individual requirements. During concept development an architect will investigate a number of ideas. It is not unusual to receive a number of alternative ideas for your project, as your architect will be thinking about broad issues, looking for advantages of site and setting and ways to design more efficiently. These alternatives may challenge your thinking but be open-minded and communicate clearly about what you do and don't like. It is always helpful to revisit your brief to assess whether any concept meets your stated objectives.

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When a concept is agreed upon, your architect will test the ideas, refine the details and shape the final design. Developed design is a key phase – it's your last opportunity to refine the overall nature of the project before planning commences. If you have additional requirements now is the time to table them. Your budget will come into play during developed design. Think about priorities in terms of time, quality and cost and allocate authority for final decision-making. You and your architect may want to engage a quantity surveyor to estimate costs. While it is difficult to predict the final cost of a building, your architect

Appendix 02 (continued)

and the external specialists they collaborate with are trained to identify all potential costs and will form an estimate based on that knowledge. Be honest about your budget and work with your architect to find solutions if necessary. Architects can also play a role in securing resource consent, if needed, for your building. However, it may be necessary to engage with specialists or consultants to secure the requisite consents for you.

4. Detailed design

Once resource consent is approved, your project will progress to the detailed design phase. This means your architect will advance your design to the level of detail that allows a construction contractor to assess the full scope of the project. This will include construction details, materials, components, systems and finishes. Be sure to revisit the Agreement for Architects Services to make sure all aspects of the contract are included in the detailed design. An architect is trained to understand the building consent process – they know the jargon and technical issues which you may not fully grasp. Often an architect will communicate with the Building Consent Authority and foster understanding of your project from an early stage. Your architect will have an in-depth understanding of the current state of the construction industry and can be an invaluable guide in choosing a quality builder and other contractors to execute your design. Your architect can help with the tendering process, if that is the procurement method, and can take your particular needs into consideration when choosing a contractor.

5. Contract administration

An architect is trained in the management of contractual and financial transactions during the construction of your building. Projects do change and there are sometimes unforeseen elements that may require contractual consideration – your architect is well placed to help with such developments. Let your architect know if you have any particular preferences about the contractual nature of your project or issues with financing. There are comprehensive guidelines on how NZIA architects should charge their own fees and administer payments for others. It is important for you to read and understand these recommendations. Generally, you will pay fees monthly or at set stages of the design process. Architects will set their fees according to the level of involvement they have in your project, as defined by the Agreement for Architects Services.

6. Project observation

An architect can play an important role in overseeing the construction phase of your project with onsite visits and monitoring the construction contracts that are in place. It is your choice how deep your architect's onsite involvement is. When determining their role onsite, take their relationships with other contractors into consideration. You may decide it is necessary for your architect to work onsite regularly, or it might be sufficient for them to visit and monitor the project periodically.

7. Completion

When the main contractor advises your architect the project is practically complete (some minor details may remain) your architect can assess the construction and provide a detailed list of remaining work. Your architect will collect all trade warranties from the main contractor and will secure a Code Compliance Certificate for you. At this point in the project, your architect will also help administer final payments to contractors and issue the main contractor with a Defects Liability Certificate.

Appendix 03 Ethics Committee Application:

Saved by the Bell: A Feminist Approach to High School Architecture

INFORMATION SHEET FOR ORGANISATION

Students from your school are invited to take part in this research. Please read this information before deciding whether or not to take part. If you decide to participate, thank you. If you decide not to participate, thank you for considering this request.

Who am I?

My name is Ekta Nathu and I am a Masters student in the Architecture Programme at Victoria University of Wellington. This research project and proposed participatory workshop, is work towards my thesis.

What is the aim of the project?

The years spent as high school students are some of the most formative to the development of confidence in identity and in preparing young people to be resilient adults. The architecture of the schools in which the development occurs has an imperative role to play in providing space for identity to form freely and in providing equal opportunity for students to succeed. This research will specifically focus on understanding how architecture informs the performance of gender and how processes and spatial outcomes could be less prescriptive to allow gender identity to form freely.

The aim of the research overall is to better understand how architecture, both the process and the outcome, might be able to include a more diverse range of people and as a result, allow more space for gender identity development. The process will include a participatory workshop component to better understand the needs of students in high schools from their perspective. The aim of including a participatory component to the process is to better position the outcome or results of the research to be relevant to this demographic.

The question this research aims to answer is:

How might architecture create more equitable learning environments for high school students?

This research has been approved by the Victoria University of Wellington Human Ethics Committee #27452.

How can you help?

Your students have been invited to participate because the research pivots off genuinely understanding the needs and wants of the people it effects, high school students. If you agree to take part, your students will be invited to participate in a collaborative workshop where I will introduce my research and guide a discussion about the relevant topics of gender identity development within high school.

I intend for this one-off workshop to run for approximately 40 minutes during a lunch time session. The workshop will be open to all year 13 students or any student over the age of 16. It is anticipated that

students of Design and Visual Communication would be the most interested in participating given the research is technically in the field of architecture.

The workshop session will be voice recorded and only available for myself and my supervisor to listen to. This is purely for the purpose of data extraction and will not be published or publicly available anywhere. Photos may be taken during the session but any photos that will be used in my research will have the faces of students blurred to ensure anonymity. Students have the right to refuse having their photo taken.

Students can withdraw from the workshop at any time however, they cannot withdraw any contributions they may have made up to that point.

What will happen to the information you give?

Those students who agree to participate will remain anonymous by name and any images taken will have faces blurred, again to ensure anonymity. This means that the researchers named below will be aware of the student's identity but this no identities will be revealed in any reports, presentations, or public documentation. However, you should be aware that in small projects and groups, identities may be obvious to others in the community (other students or staff).

Only my supervisor and I will read any notes, listen to any recordings or review any material produced. This material will be kept securely and destroyed after the minimum time data needs to be held for, 5 years.

What will the project produce?

The information from my research will be used in my thesis and the presentations made throughout my research process.

If students accept this invitation, what are their rights as a research participants?

Students do not have to accept the invitation to participate in the workshop if they don't want to. If students do decide to participate, they have the right to:

- Choose not to answer any question;
- Withdraw from the workshop while it is taking part however it will not be possible to withdraw the information you have provided up to that point;
- Ask any questions about the study at any time;
- Be able to read any reports of this research by emailing the researcher to request a copy.

If you have any questions or problems, who can you contact?

If you have any questions, either now or in the future, please feel free to contact me:

Name: Ekta Nathu

University email address: nathuekta@myvuw.ac.nz

Name: Dr Adele Leah

University email address: adele.leah@vuw.ac.nz

Human Ethics Committee information

If you have any concerns about the ethical conduct of the research you may contact the Victoria University HEC Convenor: Dr Judith Loveridge. Email hec@vuw.ac.nz or telephone +64-4-463 6028.

Appendix 03 Ethics Committee Application:

Saved by the Bell: A Feminist Approach to High School Architecture

INFORMATION SHEET FOR PARTICIPANTS

You are invited to take part in this research. Please read this information before deciding whether or not to take part. If you decide to participate, thank you. If you decide not to participate, thank you for considering this request.

Who am I?

My name is Ekta Nathu and I am a Masters student in the Architecture Programme at Victoria University of Wellington. This research project and proposed participatory design workshop, is work towards my thesis.

What is the aim of the project?

The years spent as high school students are some of the most formative to the development of confidence in identity and in preparing young people to be resilient adults. The architecture of the schools in which the development occurs has an imperative role to play in providing space for identity to form freely and in providing equal opportunity for students to succeed. This research will specifically focus on understanding how architecture informs the performance of gender and how processes and spatial outcomes could be less prescriptive to allow gender identity to form freely.

The aim of the research overall is to better understand how architecture, both the process and the outcome, might be able to include a more diverse range of people and as a result, allow more space for gender identity development. The process will include a participatory workshop component to better understand the needs of students in high schools from their perspective. The aim of including a participatory component to the process is to better position the outcome or results of the research to be relevant to this demographic.

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The workshop session will be voice recorded and only available for myself and my supervisor to listen to. This is purely for the purpose of data extraction and will not be published or publicly available anywhere. Photos may be taken during the session but any photos that will be used in my research will have the faces of students blurred to ensure anonymity. You have the right to refuse having your photo taken.

You can withdraw from the workshop at any time however, you cannot withdraw any contributions you may have made up to that point.

What will happen to the information you give?

If you agree to participate, you will remain anonymous by name and any images taken will have faces blurred, again to ensure anonymity. This means that the researchers named below will be aware of your identity but no identities will be revealed in any reports, presentations, or public documentation. However, you should be aware that in small projects and groups, identities may be obvious to others in your community (other students or staff).

Only my supervisor and I will read any notes, listen to any recordings or review any material produced. This material will be kept securely and destroyed after the minimum time data needs to be held for, 5 years.

What will the project produce?

The information from my research will be used in my thesis and the presentations made throughout the process.

If you accept this invitation, what are your rights as a research participant?

You do not have to accept this invitation if you don't want to. If you do decide to participate, you have the right to:

- Choose not to answer any question;
- Withdraw from the workshop while it is taking part however it will not be possible to withdraw the information you have provided up to that point;
- Ask any questions about the study at any time;
- Be able to read any reports of this research by emailing the researcher to request a copy.

If you have any questions or problems, who can you contact?

If you have any questions, either now or in the future, please feel free to contact me:

Name: Ekta Nathu

University email address: nathuekta@myvuw.ac.nz

Name: Dr Adele Leah

University email address: adele.leah@vuw.ac.nz

Human Ethics Committee information

If you have any concerns about the ethical conduct of the research you may contact the Victoria University HEC Convenor: Dr Judith Loveridge. Email hec@vuw.ac.nz or telephone +64-4-463 6028.

Appendix 03 Ethics Committee Application:

Saved by the Bell: A Feminist Approach to High School Architecture

CONSENT TO PARTICIPATE (ORGANISATION)

This consent form will be held for a minimum of five years.

Researcher: *Ekta Nathu, Faculty of Architecture, Victoria University of Wellington.*

- I have read the Information Sheet and the project has been explained to me. My questions have been answered to my satisfaction. I understand that I can ask further questions at any time.
- I agree that my organisation will take part.

I understand that:

- I may withdraw this organisation from this study at any point up until one week before the workshop, and the information provided by members of the organisation will be destroyed.
- Any information the participants provide will be included in a final thesis
- The identities of the participants will remain confidential to the researcher. Photographs of the workshop will be taken, and these photographs will be included in the thesis. Student faces will be blurred in any photographs published in the thesis. Students can choose not to be included in any photos at all.
- I understand that the results will be used for a Masters thesis.
- The name of my organisation may be used in the thesis but no information that is able to identify individual students will be included.
- I would like to receive a copy of the final report and have added my email address Yes ☐ No ☐ below.

Signature on behalf of organisation: _____

Name of signer: _____

Date: _____

Contact details: _____

Saved by the Bell: A Feminist Approach to High School Architecture

CONSENT TO PARTICIPATE IN WORKSHOP

This consent form will be held for a minimum of five years.

Researcher: *Ekta Nathu, Faculty of Architecture, Victoria University of Wellington.*

- I have read the Information Sheet and the project has been explained to me. My questions have been answered to my satisfaction. I understand that I can ask further questions at any time.
- I agree to take part in the workshop.

I understand that:

- I understand that consent from the school has been provided and the school may be named in the thesis
- I understand that photos from the workshop may be included in the thesis and that all faces in photos will be blurred and unidentifiable. I can ask to not be photographed at all.
- I understand that the findings may be used for a Masters thesis. This will take the form of quotes from discussion although my name or any other identifiable information will not be included.
- I can withdraw from the workshop while it is in progress however it will not be possible to withdraw the information I have provided up to that point as it will be part of a discussion with other participants
- All published photos will have faces blurred. Do you mind if photos are taken Yes ☐ No ☐ during the workshop and used in the thesis?
- I would like to receive a copy of the final report and have added my email address Yes ☐ No ☐ below.

Signature of participant: _____

Name of participant: _____

Date: _____

Contact details: _____