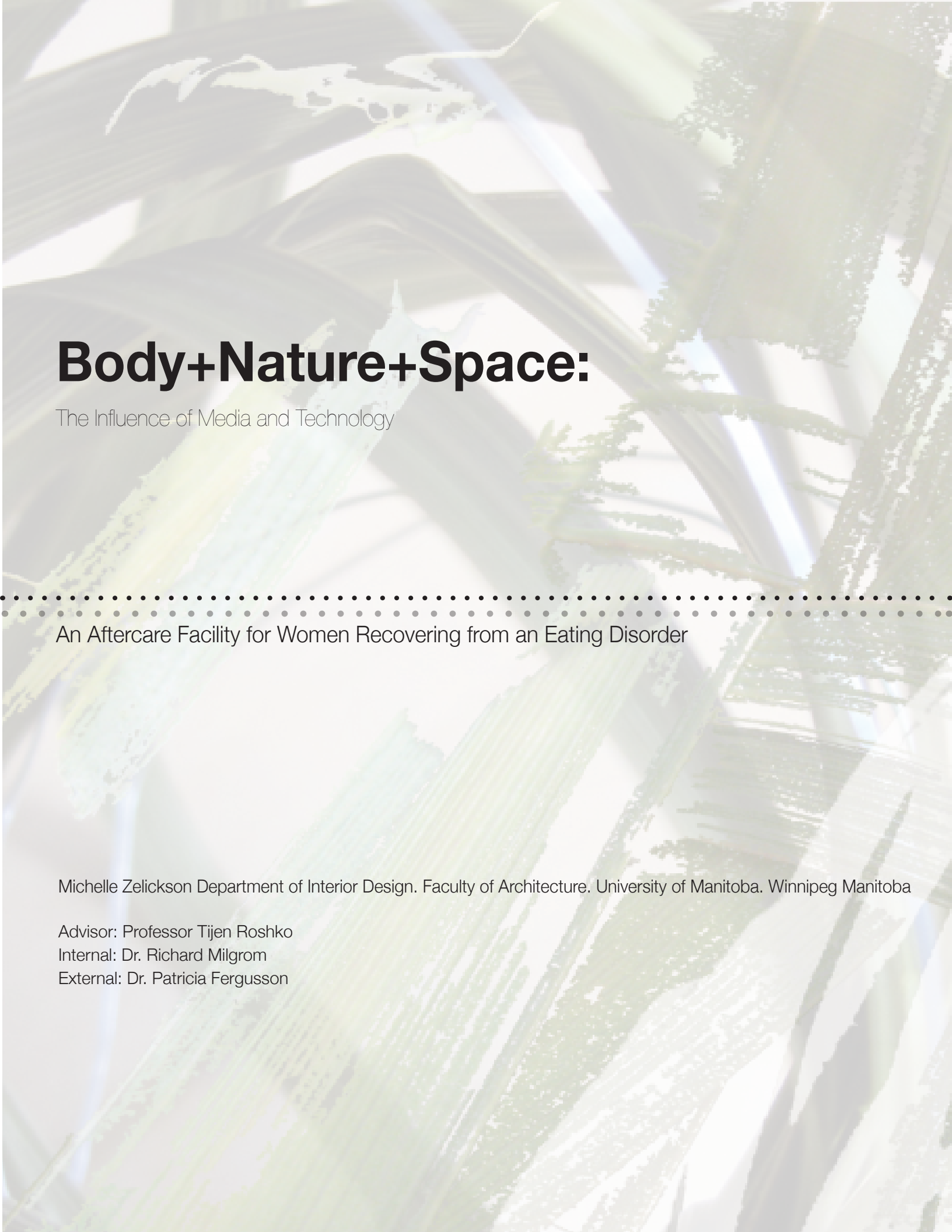




Body+Nature+Space:

The Influence of Media and Technology

An Aftercare Facility for Women Recovering from an Eating Disorder

Michelle Zelickson Department of Interior Design. Faculty of Architecture. University of Manitoba. Winnipeg Manitoba

Advisor: Professor Tijen Roshko

Internal: Dr. Richard Milgrom

External: Dr. Patricia Fergusson

Body+Nature+Space

The Influence of Media and Technology



An Aftercare Facility for Women Recovering from an Eating Disorder

By Michelle Zelickson

A Practicum submitted to The Faculty of Graduate Studies of the University of Manitoba
In Partial Fulfillment of the requirement of the degree of

Master of Interior Design

Department of Interior Design
Faculty of Architecture
University of Manitoba

Copyright 2011 by Michelle Zelickson

Acknowledgements

I would like to acknowledge those who helped to make this project a success and who supported me throughout this process. To Patricia Fergusson, thank you so much for your expertise on this topic and the knowledge that you shared with me during this process. I hope this experience was as exciting to you as it was to me; it was an honor to be able to present this project to you. To Richard Milgrom, thank you for constant support and guidance not only through this project, but through the many years I have spent in this faculty. Thank you to my advisor Tijen Roshko for your constant motivation, inspiration, guidance, and shoulder to lean on. You have allowed me to explore my true capabilities by pushing the boundaries and taking risks as a designer. I am truly grateful for all the time you have given me during our meetings and my very frequent interruptions. You are an inspiration to me in so many ways.

Many thanks to my TD1 for sharing ideas with me, inspiring me and always listening to me. Finally, to my family, thank you so much for your constant support, patience and understanding throughout this process without you I would not have been able to get to this point. You have all contributed to this project in more way then you can imagine.

Abstract

The emergence of technology in its many forms has intercepted the connection that the natural body once had with spatial experiences. These tangible interactions between the body and space have been replaced with technology causing the body to become de-valued and disconnected from itself and the surrounding environment. This disconnect between the body and space is felt by many people; however, the effect is compounded in women suffering from eating disorders because of a pre-existing disconnect with the body.

Eating disorders are becoming much more prevalent in society. According to Health Canada, 1-2% of women between the ages of 15 and 25 have anorexia, 3-5 % have bulimia, with 10-20% eventually dying of complications despite interventions (Health Canada). While many of these women will enter the recovery phase from the disorder, relapse will occur with approximately 1/3 of the women (Zerbe, 17). Many centres focus on the treatment of eating disorders, but few focus on the aftercare that is crucial to prevent relapse.

This design project will attempt to create a wellness centre focused on awareness, education and prevention of eating disorders through a strengthened connection with nature. The exploration of biophilic concepts, which are interactions with nature, will foster the connection between the body and space re-developing and sustaining a body awareness that has become obsolete to the technical body in this modern world.

Contents

Part 1 Introduction

1.1	Context	3
1.2	Rationale	6
1.3	Project objectives and methods	8
1.4	Chapter Description	10

Part 2 Eating disorders

2.1	Definitions	13
2.2	The Causes	16
2.3	Symptoms	18
2.4	Process to Recovery	19
2.5	Design Considerations	22

Part 3 Theoretical Framework

3.1	Introduction	25
3.2	Framework Diagram	26
3.3	The Body and Space	27
	3.3.1 The Temporary Body	28
	3.3.2 The Fragmented Body	29
	3.2.3 The Holistic Body+Mediation	30
3.4	The Body and Technology	
	3.4.1 Introduction	33
	3.4.2 The Mass Media	34
	3.4.3 The Atrophy of Skill	35
	3.4.4 The Post Human	36
	3.4.5 Mediation	37
3.5	The Body Nature and Space	
	3.5.1 Introduction	39
	3.5.2 Biophilia	40
	3.5.3 Biophilic Dimensions	41
	3.5.4 Biophilic Attributes	42
	3.5.5 Sensory Richness	45
	3.5.6 Restorative Design	50
3.6	Framework Summary	51

4.0 Precedent Review

4.0	Introduction	55
4.1	Casa Palmera Treatment Centre	56
4.2	Thermal Baths: Peter Zumthor 1996 Vals Switzerland	57
4.3	Sidwell Friends Middle School Washington DC	58
4.4	Quay Branley Museum: Jean Nouvel. Paris France	59
4.5	Wellness Centre in the Exedra Nice Hotel: Simone Micheli. Nice, France	60

5.0	Investigation process	
5.1	Introduction	63
5.2	Process	79
5.3	Abstractions	83
6.0	Programme	
6.0	Programme	91
6.1	User Group	93
6.2	Client	95
6.3	Treatments	97
6.4	Site Analysis	102
6.5	Code Analysis	118
6.6	Spatial Requirements	120
6.7	Spatial Adjacency	121
6.8	Zoning	122
7.0	Design Proposal	124
8.0	Conclusion	165
9.0	Bibliography	171
10.0	Appendix	178

List Of Figures+ Tables

All Images and tables unless otherwise stated are the original work of the Author

Figure 1: Self development model, adapted from Ciliska et al.

Figure 2: Total health triangle, adapted from McManners.

Figure 3: Bdulrahman Bin Khalid "Don't stop the music". Public domain material from flickr.com

Figure 4: "Grass Blades". Public domain material from Google

Figure 5: Vdorse. "Curvilinies". Public domain material from flickr.com

Figure 6: Cateyes "Cherry Tree". Public domain material from flickr.com

Figure 7: Kato Salento. "Intricci. Public domain material from flickr.com

Figure 8: Acaruthers "The Bath's main pool". Public domain material from flickr.com

Figure 9: Matthew Chua. "Slit Light". Public domain material from flickr.com

Figure 10: himynameisnicole "Vals Switzerland". Public Domain material from flickr.com

Figure 11: IsaiahK "Sidwell Friends Middle School" PUBlic domanin material from flickr.com

Figure 12: IsaiahK "Sidwell Friends Middle School" PUBlic domanin material from flickr.com

Figure 13: IsaiahK "Sidwell Friends Middle School" PUBlic domanin material from flickr.com

Figure 14: Neil. "PC146625". Public domain material from flickr.com

Figure 15: Edbur. "Musée du Quai Branly Paris". Public domain material from flickr.com

Figure 16: L8N. "Quai Branley Museum of indigenous artwork". Public domain material from flickr.com

Figure 17: MamaStrawberry. "Wellness Centre in the Exedra Nice Hotel by Simone Micheli". Public domain material from flickr.com

Figure 18: MamaStrawberry. "Wellness Centre in the Exedra Nice Hotel by Simone Micheli". Public domain material from flickr.com

Figure 19: MamaStrawberry. "Wellness Centre in the Exedra Nice Hotel by Simone Micheli". Public domain material from flickr.com

Context 1.1

Over the past few decades, a globalized media has inundated western society with images of an idealized, westernized body (Orbach “Bodies”, 15). The search for, and obsession with, an ideal body of physical, ageless perfection has instilled a deep rooted fear so strong that people have begun to defy the very materiality of the human body (Bordo, xvii). To defy the natural body means to reconstruct, transform, harm, or permanently alter the body to fit the idealized image of beauty for all women.

Global media use their various modes of communication to spread this ideal body image, which Weiss defines as the standard against which we measure our present body (13). These standards force women to compare their own bodies to digitally produced bodies, using them as references for achieving the ideal look. It is believed that by attaining this ideal and unattainable image, women will feel content with themselves (Wolf, 59).

Eating disorders are one profound form of body manipulation that have a relationship to the media’s portrayal of women (Heinberg, Thompson, 339). In the following chapters, this project will demonstrate the importance of, and need for, a centre that aids in the prevention and recovery of eating disorders.

To maintain a consistent recovery from an eating disorder is very difficult, and the occurrence of relapse is very high (Pike, 449). Unfortunately, few treatment centers in Winnipeg focus solely on the maintenance of recovery beyond those currently facilitated in a hospital setting. This leaves women with less severe cases to worsen, resulting in full relapses (Skerrit, A4). To respond to this dire situation, this project intends to develop an aftercare facility for women who have reached recovery and are in need of assistance transitioning and maintaining their recovery in order to prevent relapse. This will, it is hoped, alleviate the amount of relapse patients visiting the hospital.

In order to provide an aftercare facility for this disorder, many contributing factors need to be understood and examined in terms of their relationship to the body and the devaluing of its presence. Specifically, as Turner argues that the devaluing of the body in modern society can be understood in relation to modern society’s rapidly expanding and developing technology (qtd. in Wegenstein 4), this project will address the serious repercussions that modern technology has had on the human body and how it has perpetuated women’s dissatisfaction of their bodies.

Technology is a very broad term that can be explored in many ways; this project will examine it in two specific ways:

1. The media's ability to generate and spread images that become a representation of the ideal;
2. The atrophy of skill has resulted in a disconnect between the body and space.

The latter is particularly significant because, by intercepting our tangible interactions with space and our physical environments, modern technology has allowed the body to forget basic movements, modes of exchange, and sensory experiences. In point, the body has become unaware of its basic capabilities (Cspreji, 3; Leder, 4). Given its limited interactions within the physical environment, the body has become a product and no longer the means of production (Orbach "Bodies", 8). Susie Orbach describes this transformation of the body, stating that,

our bodies no longer make things. In the West, robotics mechanized farm equipment, pre-prepared goods from food to buildings, motorized transport high tech warfare and so on have replaced much ordinary physical activity and labor. We don't tend to repair things either, for mass production means it is cheaper to replace them (7).

The forgotten movements described by Orbach allows the body to place a greater importance on the technology that mimics these once natural motions and activities. The void that is caused by this technical replacement leaves the absent body searching for an understanding of itself (Leder, 22). One consequence of this search is that women have begun to turn to methods such as topical applications of beauty, invasive cosmetic surgeries, and harmful eating practices to understand and accept their bodies. These methods and trends are attempts to provide the body with a renewed purpose and value; however, they do not make a real connection between the body and space that the human body longs for and desires. Orbach explains that these different manifestations and methods placed on the body can be defined as a "crises de corps manqué." That is, these different attempts and ways of trying to heal the body have failed, but are evidence of the desire and longing for a body that can feel, touch, and be touched (91). The body's desire for touch can be explored through various spatial environments and interactions, key experiences that the body currently lacks with space.

The disconnect between the body and space is experienced by all people, but it is compounded in those women who suffer from eating disorders as their experience is particularly acute, given their existing disconnection with

their bodies and their lack of bodily awareness; Ciliska et. al. define this phenomenon as the ability to perceive inner feelings and sensations (191). The ability to perceive these sensations from the natural body is often damaged in people with an eating disorder (Wallin et al. 19). This makes the development of enhanced body awareness even more imperative in any attempt to prevent a relapse from these disorders (20). To re-develop the connection between the body and space, Merleau-Ponty explains that the human body can be properly understood to be the key apparatus that gains information about the environment and qualities of space ("Phenomenology", 181). The body shapes and informs a person's overall experiences within the environment. As the main apparatus to understand its environment, the body is best understood as an undividable entity within space. In terms of the body's active participation within space, the fundamental connection between the two is indisputable. Gabriel Marcel describes this concept, noting, "I am my body but I am the space where I am" (QTD. Pallasmaa "Eyes of the Skin" 64). His point of emphasis is that the experiential world is organized and articulated around the body, which serves to highlight the importance of the body's connection with and understanding of space (64).

The development of the proposed wellness centre intends to re-connect the body with spatial experiences that were once unique to the body. The facility's many explorations and incorporation of all the senses will recreate the missing dialogue and interaction between the body and space. This connection to architecture and space, according to Pallasmaa, will help strengthen the sense of self as he believes that significant architecture makes us experience ourselves as complete embodied spiritual beings ("Eyes of the Skin", 11). By exercising these capabilities, the body is forced to make direct contact with space, objects, and materials. This renewed body awareness is informed by the ability to perceive sensations from the natural body and integrate them into life that is often damaged in patients with an eating disorder (Wallin et al. 19). According to Daubenmier, this lack of body awareness is linked to the dissatisfaction that women feel toward the body (208), in contrast to having an increased body awareness that Wallin et al. contend is of great importance for women's ability to recover from, or to prevent a relapse from, an eating disorder.

Rationale 1.2

Eating disorders are becoming much more prevalent in society. According to Health Canada statistics, 1 to 2% of women have anorexia and 3 to 5 % have bulimia, between the ages of 15 to 25 with a 10 to 20% mortality rate (Canadian Mental Health Association). It should be recognized that eating disorders do occur in men; however, they are much more common in women who account for more than 90% of all cases (DSM-IV-TR, 587).

Present treatments strategies for the recovery of an eating disorder have uncertain outcomes and, given the high potential for death and chronicity, Ciliska et al. believe that a new understanding of the process and meaning of recovery is vital for an improved self-care and clinical interception (188). Zerbe states in a recent study that about 30% of patients were either dead, or were still chronically afflicted from an eating disorder despite previous interventions (17). It is for these reasons that this project intends to focus on an aftercare centre for these women and not a treatment centre.

Currently in Winnipeg, treatment for eating disorders occurs mainly in a hospital setting. According to Winnipeg Regional Health Authority, between four and six hospital beds are for eating-disorder patients, making the waiting time approximately four weeks (Skerritt, A4).

In the fall of 2009, the Women's Health Clinic (WHC) recognized the need for an additional eating disorder treatment centre and launched a community-based prevention and recovery program that filled immediately with 75 women. The WHC currently has a quickly growing wait list for admittance into its program. The WHC focuses on a more holistic method of treatment than a hospital, placing an emphasis on prevention, education, and action (Women's Health Clinic). However, current space does not facilitate the exploration of these ideas. The current programming at the WHC offers group therapies, individual therapy sessions, and education seminars; however, many new and experimental methods of treatments are being explored as tools to help heal and prevent relapses from eating disorders. These methods such as touch therapy, physiotherapy, and massage therapy all explore the education of the body and its functions through body coordination (Daubenmier, 208). It is through such methods that many women are learning new ways to respect the messages from their bodies and are given new means of feeling alive other than by using techniques such as self-starvation and purging that aim at harming the body (Zerbe, 172).

The new wellness centre proposes to expand the WHC by offering a new home that facilitates new and unique treatment options for. The development of the new facility will explore the use of holistic healing, which will aid in helping women recover from eating disorders.

Project Methods+Objectives 1.3

Project objectives and methods: 1.3

This project explores technology's significant influence and detrimental impacts on the natural human body and examines ways in which biophilic design can inspire interior space as a means to strengthen the connection human beings have to nature.

Interior design has the capacity to design space at a human and intimate level within the larger context of design. To work at this intimate level it is imperative that interior designers understand the body's natural capabilities if they are to plan and design for the body's use within space. Architectural theorists such as Vitruvius have reiterated that the body and architecture are inseparably linked (QTD Fernandez 79). Projects of this nature can, therefore, provide invaluable information to the field, expressing the role interior designers can have in developing the connection between the body and space. This will re-sensitize our bodies to what Montagu claims digitalization and technological advancements have forced us to forget (QTD, Pallasmaa, 37).

The wellness centre will provide a place to focus on the body when a woman is feeling the pressures and struggles of daily life. The centre's activities will use nature to integrate and re-connect the body and space, and thereby re-establish a sense of value for the human body.

How is the body affected by modern forms of technology?

How can Biophilic design inform and inspire the interior design of this wellness centre to allow women who have recovered from an eating disorder the chance to maintain their healthy lifestyle, while also helping them to re-connect their bodies to space through an enhanced body awareness?

How can technology be used within this project in a supportive and positive way towards the body, while also helping to redevelop the lost connection between the body and nature that allows us to experience space?

The following document develops a model that explores concepts that can be applied to various design typologies within the field of interior design. It examines the benefits that sensory experiential design can offer to the natural human body, to our perception of the self, to our well-being, and to our spatial understanding. The centre will use nature as the mediator to reconnect the body and space while using technology in a positive way to help in the re-development of the body. The project explores the love/hate relationship the body experiences with technology and proposes to find a balance between these contradictory elements. These design objectives have been devised to provide a solid direction for the project.

Chapter Descriptions 1.4

Chapter 2 provides an in-depth outline of the main diagnosable eating disorders as well as their symptoms and current treatments. Having an understanding of these symptoms and treatments provides an insight into eating disorders and helps to shape the design that targets the main issues and emotional responses to the disorder. Chapter 3 presents the theoretical framework for the design, outlining the fundamental theories and concepts that help mediate the connection between the body and space in a technological world. The development of this connection is intended to help these women discover their self-awareness and foster an acceptance of their natural bodies. The framework will help organize the major design considerations influenced by these concepts and in turn determine its key spatial and aesthetic decisions. Chapter 4 investigates the ideas that impact the overall topic as well as the precedent studies of influential spaces around the world. These previous studies offer guidelines and design concepts that are relevant to the present project. Chapter 5 synthesizes the ideas explored in the research into an extensive programme. The programme includes a thorough site analysis, building code analysis, client and user profiles, a spatial adjacency chart and design objectives. Following the programme is an outline of the design proposal in Chapter 6 where the theoretical considerations and practical investigations are used to establish the wellness centre. The final Chapter 7 present's the project's conclusions.

Eating Disorders 2.1

Most women spend approximately 100 minutes a day scrutinizing instead of loving their bodies. That is 100 minutes fewer than they could spend admiring their hair, their eyes or the inexplicable work of their internal organs or muscles of the human body (Martin, 6). The standard of perfection women try to attain is based on a difficult to achieve image spread by the mass media (Heinberg, Thompson, 340). These images are spread through forms of communication that Heinberg and Thompson define as the mass media, such as televisions, radios, movies and magazines, all of which are culturally produced and edited (339).

These culturally produced images influence the many prevailing societal standards of attractiveness, both affecting women's possible body image disturbances and eating dysfunctions (340). While society is capable of being critical of most images, there seems to be a challenge when it comes to processing media messages as these constructed images are not based in reality (Martin, 126). While the media may play a role in how women feel towards their bodies they are not the sole contributors (Heinberg, Thompson, 339).

2.1

The term eating disorder is defined in the diagnostic and statistical manual of mental disorders (DSM-IV-TR, 583) to encompass a wide variety of disturbances in eating behaviors such as Anorexia Nervosa and Bulimia Nervosa.

Anorexia Nervosa: “The essential features of Anorexia Nervosa are that the individual refuses to maintain a minimally normal body weight, is intensely afraid of gaining weight, and exhibits a significant disturbance in the perception of the shape or size of his or her body” (DSM-IV-TR, 583).

Bulimia Nervosa: “ Some of the essential features of Bulimia Nervosa are binge eating and inappropriate compensatory methods to prevent weight gain. In addition, the self-evaluation of individuals with Bulimia Nervosa is excessively influenced by body shape and weight. To qualify for the diagnosis, the binge eating and the inappropriate compensatory behaviours must occur, on average, at least twice a week for 3 months” (DSM-IV-TR, 589).

2.1

The following subtypes can be used to identify the methods of purging that are used to compensate for the binge eating:

Purging Type: This subtype refers to a person who has regularly engaged in self-induced vomiting or the misuse of diuretics, enemas or laxatives during their purge (591).

Non-purging type: This subtype describes a person who has used other inappropriate behaviours such as fasting or excessive exercise, but has not regularly engaged in self-induced vomiting or the use of laxatives (591).

Although not currently a diagnosed disorder, binge eating is under consideration for further editions of the DSM due to its more common appearance in patients. It is characterized as consuming large amounts of food in a very short period of time until the individual feels uncomfortably full. Binge eating is much like bulimia; however, the individual does not use any form of purging, vomiting, laxatives or fasting (Martin, 23). These three common forms of eating disorders will be the focus at the wellness centre.

It is important to note that often these diseases can be hard to diagnose, as it is quite common for patients to exhibit symptoms that overlap. In response the DSM-IV-TR has introduced a category called, EDNOS (eating disorder not otherwise specified). This category is for disorders of eating that do not meet the criteria for any specific Eating Disorder. For example a female may meet all the criteria for Anorexia however the individual has a regular menses. Or all the criteria for Bulimia Nervosa are met except that the binge eating and inappropriate compensatory mechanisms occur less than twice a week or for duration of less than 3 months.

Causes 2.2

Heinberg and Thompson suggest that the mass media is the most potent and pervasive influence in setting unattainable socio-cultural standards for women (340). These standards have an impact on body image disturbances and certain eating dysfunctions seen in many young women (340; Zerbe, 102). While there may be a relationship between eating dysfunction and the media as previously mentioned it is not the only contributor there are many other contributing factors in the presence of this disorder. Food is used within this disorder as a coping mechanism and form of control (Canadian Mental Health Association).

As discussed in *Featuring Females* by Ellen Cole and Jessica Henderson Daniel, two main elements of the media can increase the prevalence of eating dysfunctions and body issues in young women.

The first is the social comparison theory, which states that human beings have an innate tendency to consciously or unconsciously compare themselves with others in an effort to evaluate themselves (44). Comparing our bodies to ideal images that have been produced by the media creates a discrepancy between the natural body and the media's view of constructed bodies.

Images of the media surround women in everyday life. These images can be recognized and bypassed, or they can be seen and internalized. The internalization of these images is the second element that can increase eating dysfunctions in women. The internalization of the thin ideal refers to a person buying into the standard ideals of attractiveness and then conforming to attain these ideals (Cole, Henderson Daniel 45; Agras, 74).

There are many societal and personal factors that contribute to eating dysfunctions besides the media (Heinberg, Thompson 340).

Some of the many factors include influences and situations relating to family, partners and friends. Teasing, early pubertal maturation, sexual abuse, psychiatric disturbances, academic pressures, poor body awareness and body dysmorphic disorder. In response to these circumstances, eating disorders are used by some as a tool in an effort to cope with their situation, to communicate with others about their needs, to defend themselves against external intrusions, and to attain a measure of control over their lives (Zerbe, 173). Women suffering from an eating disorder need to learn that there are other ways to self-regulate, to sooth and affect their body by affirming rather than by harming it (173).

It should be recognized that while eating disorders are very common in society today there is no standard diagnoses or cure for the disease. As each individual suffering from an eating disorder may well show different symptoms, identifying the cause remains enigmatic and proposing treatments problematic (Devlin, Walsh, 1387).

Causes:

Media Influence

Technology

family situations

Friend Influence

Early Pubertal Maturation

Poor Body Awareness

Psychiatric disturbances

Lack of Control

Desire for perfection



Symptoms 2.3

Physicians are able to identify a number of general symptoms of eating disorders, including amenorrea (the absence of a menstrual cycle), abdominal discomfort, bloating, constipation, cold intolerance, lethargy, excess energy and emancipation (Freund et al., 579, DSM-IV-TR, 586). Physicians usually ask questions that will aid in their diagnosis such as: what did you eat yesterday? Are you satisfied with your eating habits? or do you think that you are thin (579)?

Physicians can also look for certain physical signs during an examination that can lead to a diagnosis. These signs may include symptoms of hypotensive, bradycardia, yellow skin and languo, which is a fine hair covering the body (581) As well as peripheral edema, dryness of skin and hypothermia (DSM-IV-TR, 586). The symptoms are generally similar in cases of anorexia and bulimia, but in some cases bulimics will show teeth erosion from constant purging and some may have scars or calluses on the dorsum of the hand from contact with teeth with vomiting (586).

It is very common in both disorders for patients to suffer from comorbid diseases, which are a select number of diseases that commonly coincide with an eating disorder (Kinoy, 53). Some of the common comorbid diseases include depression, obsessive compulsive disorder, mood disorders, anxiety disorders, history of sexual abuse, substance abuse and preoccupation with weight (53).

- Psychological
- Body Dismorphic Disorder
- Weight Loss
- Depression
- Fatigue
- Anxiety Disorders
- OCD
- Obsession with food
- Attempt for control
- Physical
- Amenorrhea
- Bloating/Constipation
- Lanugo
- Teeth Erosion
- Malnourished
- Gastrointestinal Problems



Process to Recovery 2.4

The initial diagnosis can be very difficult to confirm as the individual generally does not present a complaint of an eating disorder (Freund et al. 579). The individual also has a distorted experience of their body weight and shape compared to what other may see (DSM-IV-TR, 584). This denial leaves the response phase in the hands of the physicians. The physicians have to be aware of symptoms to observe in patients and be thorough in understanding the individuals' lifestyles in order to diagnose (Freund et al. 579).

Immediate treatment interventions for anorexia, bulimia and binge eating aim at nutritional normalization and recovery of normal eating patterns (580). Normalization can be achieved through typical forms of treatments such as cognitive behavioral therapies, family or individual based therapies, medications, meal plans, food journals and nutrition counseling. The variety of treatments is based on a multidisciplinary approach including the primary care physician, nutritionist, and a mental health professional (580). Even with these ranges of treatments, the possibility of relapse still needs to be recognized.

Relapse is described as the point where an individual's weight changes and there is an increase in the core symptoms after having reached a significantly improved behavior, weight status, attitude and menstrual cycle through therapy (Pike, 462). When proper behaviors have once again been established, the patient is in remission and the recovery stage can begin. Good recovery according to Strober, Freeman and Morrell, is based on the absence of all criterion symptoms of anorexia or bulimia for no less than 8 consecutive weeks (qtd. in Pike, 466). A study revealed that 30-50% of patients successfully treated in the hospital will relapse within 1 year of discharge (Pike, 466). Therefore the development of a recovery centre for women will be a great benefit to the individuals who struggle to maintain their recovery process.

2.4

A diagram constructed by Ciliska et al., aims to describe the process of anorexia nervosa from initial discovery to recovery. The diagram gives insight into the stages of an eating disorder as a means to understand the entire process women experience. The self-development model was designed for anorexia; however, since anorexia nervosa and bulimia share many symptoms it may be beneficial to consider and adapt it for other forms of eating disorders as well.

The self-development model is a cyclical model that shows movement along each line, expressing the idea that relapse can occur at any time during the road to recovery. Most women begin in the “perilous self-soothing side” where they live life for everyone else without ever truly knowing their own identity or their place within society (Ciliska et al., 191-192). They eventually loose themselves to the disease and succumb to unhealthy behaviors in search of control and self-acceptance (191). They have little self-awareness of their emotions or inner bodily sensations. They lack self-differentiation, which is the ability to maintain the self while in a relationship, and they lack control or self-regulation over the state of their body (192).

According to the self-development model, developing these three areas of the self (self-awareness, self-determination and self-regulation) can direct the patient to gain a concern for the self. Here the patient encounters the self and gets in touch with previously unknown aspects of their own bodies, developing skills and gaining knowledge about eating disorders and basing their life on pleasing themselves and not others (192). Here a higher level of self-awareness, self-differentiation and self-regulation is explored to aid a woman to the informed self-care stage.

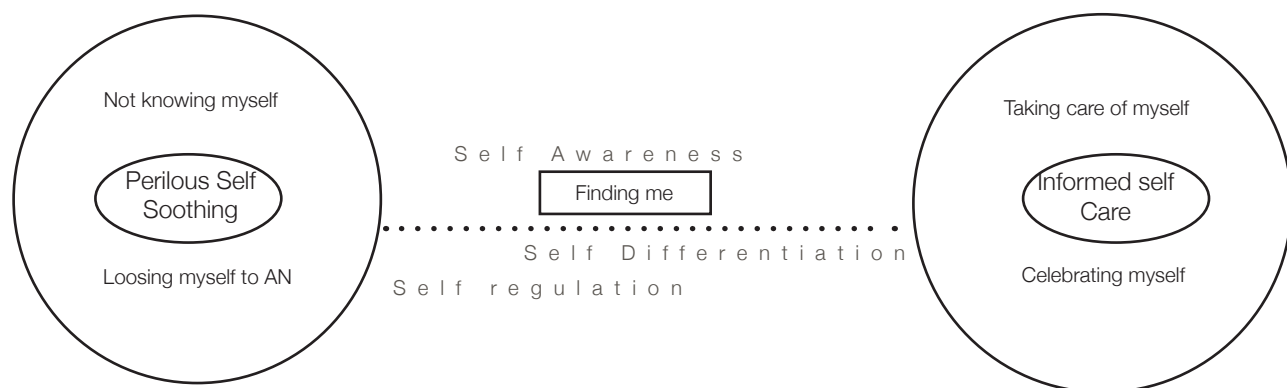


Figure 1

Self Development Model Adapted from Ciliska et al. To describe the process of anorexia from initial response to recovery

2.4

The self-care stage allows woman to become aware of the strengths and limitations of their own body and how to manage these emotions in a healthy way. The self-care stage is never fully over; the new self and healthy life must be maintained and nurtured in order to reduce the risk of relapse, which can be a challenge for many women without the proper support system (Ciliska et al., 198).

Studying the process of an eating disorder to recovery and the many emotions that face women while trying to overcome the debilitating disease is very important in the design considerations for this wellness centre. The wellness centre will focus on filling the gap that commonly occurs between initial recovery and relapse, by providing users with the support that is needed to transition back into a normal lifestyle without an eating disorder. A smooth transition will enable women to develop relationships and gain support from the community, their families, and themselves, each of which is imperative to their healing (198). Once recovery is achieved users can find ways to reclaim their time and energy, using it in a positive way towards their body. With this energy, women can attempt to view the body in a more realistic and natural way without feeling that it is the cause of many fears and unremitting problems.

“We must become stronger by acknowledging their fears, craving, intuitions. We must translate their aches into the language of emotion, identify loneliness and anger and boredom and disappointment before they becomes insatiable hungers”. –Martin 280.

Design Considerations 2.5

Analyzing some of the many states of being and emotions experienced by women with an eating disorder will help to develop a more focused understanding of how interior design can translate these feelings into spatial experiences to provide a healing space.

Low self-esteem, Concerns with eating in public , Belief in the thinness myth Dichotomous (inflexible) thinking, Feeling of ineffectiveness , Perfectionism, Need to be in control, Obsession with good , Limited social spontaneity, Difficulty expressing feelings (DSM-IV-TR, 585). Balance, Visual Boundaries, Variance, Interaction, Sensory Experience, Control ,Maintenance, Unpredictably, Engaging, Open Space, Intimate Space, Flexibility, Choice, Spontaneity

Low self-esteem, Concerns with eating in public , Belief in the thinness myth Dichotomous (inflexible) thinking, Feeling of ineffectiveness , Perfectionism, Need to be in control, Obsession with good , Limited social spontaneity, Difficulty expressing feelings (DSM-IV-TR, 585). Balance, Visual Boundaries, Variance, Interaction, Sensory Experience, Control ,Maintenance, Unpredictably, Engaging, Open Space, Intimate Space, Flexibility, Choice, Spontaneity

Low self-esteem, Concerns with eating in public , Belief in the thinness myth Dichotomous (inflexible) thinking, Feeling of ineffectiveness , Perfectionism, Need to be in control, Obsession with good , Limited social spontaneity, Difficulty expressing feelings (DSM-IV-TR, 585). Balance, Visual Boundaries, Variance, Interaction, Sensory Experience, Control ,Maintenance, Unpredictably, Engaging, Open Space, Intimate Space, Flexibility, Choice, Spontaneity

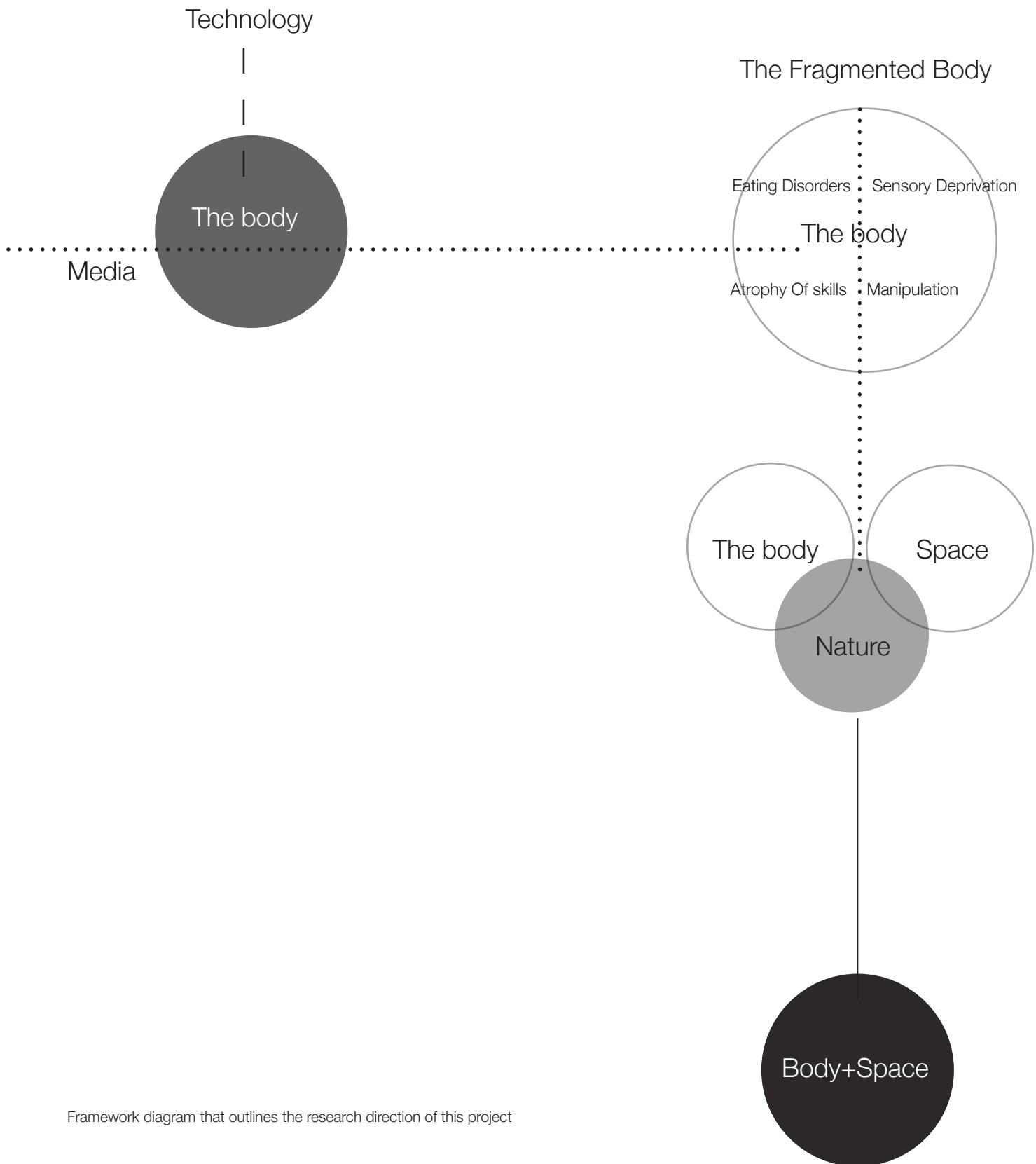
Part 3

Theoretical Framework

Introduction 3.1

The following literature review examines a number of fundamental categories that will sustain this design. The research first seeks to understand the body and space and then the body and technology to outline a framework that can develop a space that facilitates a relationship between the body nature and technology. Understanding these connections will help establish how the proposal presents an alternative and more holistic method of caring for and maintaining the recovered body as well as a way to acknowledge and understand the balance needed between all elements. This more holistic method embraces the many advances of technology while nurturing the body in its natural roots, concluding with a harmonious understanding of the impacts of both technology and nature on the body. The harmony created between all of these connections is described by Clodagh, who states “design is a healing art that provides opportunity to enhance peoples’ lives using elements of nature as a gift” (Kellert, 341). This project intends to use nature as a gift to help women with eating disorders reclaim their lives.

Framework Diagram 3.2



Framework diagram that outlines the research direction of this project



The Body + Space 3.3

The Temporary Body

The Fragmented Body

The Holistic Body+ Mediation

The Temporary Body 3.3.1

The human body is at the forefront of our daily life and greatly contributes to our sense of self and connection to space (Cspreji, 2). With the influence of technology in Western society today, the body is viewed, as described by Merleau-Ponty, as being a sketch, one that is already formed and always being formed ("Phenomonology", 198). Viewing the body as a sketch can potentially give the perception of it being a temporary object, as sketches can be changed, erased and manipulated to an individual's desires. It is ideas such as this one that perhaps lead people to believe they have the ability to manipulate the body until they reach satisfaction. Csordas describes the kind of body that society has been accustomed to in scholarly discourse and popular thought as typically being a fixed material entity subject to the empirical rules of biological science (1). The body of contemporary society can no longer be considered as a brute fact of nature as it has been altered and manipulated from its original state (1). The idea of the temporary body is supported by Csordas' description of how society feels towards the natural body and its mutability becoming what feels like a collage or abstracted body. The body being abstracted from nature is experienced as the concept of the post-modern body. Susan Bordo explains the post-modern body as having fantasies of rearranging, transforming and correcting the very materiality that creates it (21). These fantasies are becoming a reality and are what is currently happening to the human body. Bodies are being manipulated and transformed into something that is no longer whole but are scattered into pieces that no longer function together in the same way. At one point the body had moments of a unified perception before any interference, but it has currently evolved into what Wengenstein calls a fragmented state (4).

The Fragmented Body 3.3.2

The fragmented body can be viewed as the opportunity to explore the individual dimensions that make up the body and as a means of mending the body to a functioning as a whole. To do so, it is important first to understand its individual parts and then how it is believed that the body can act as a whole.

Design can be considered as the reconciliation between the self and the environment, which is mediated through the senses (Pallasmaa "Eyes of the Skin" 72). Rene Spitz conceives of this full body sensory understanding as a coenesthetic communication, which he describes as a total sensing system (qtd. in Cspregi 36). According to Cspregi, it is crucial to register these sensory experiences through the entire organization of the body and not as fragmented experiences (36). Although a holistic view towards the body is much preferred, in contrast to the fragmented state, Wegenstein describes these two apparently contradictory movements, fragmentation and holism, as indispensable modes of understanding the body. Both are part of the mediation process (7).

The Holistic Body+Mediation 3.3.3

The mediation process that moves from fragmented state to one of holism contributes to a body's cohesive spatial experience. Holism is defined by Jack LaPatra as,

“The principle in which the living organism is seen as a whole that is more than the mere sum of its interacting parts. The interdependence of all the parts critically determines the nature of the existence of the entire organism. Growing numbers of people are recognizing the deep interdependence of the body, mind, emotion and spirit and looking towards the good health of all those simultaneously rather than separately” (qtd. in Kopelman, Moskop 220).

A holistic view of the body plays a large role in achieving an overall sense of health particularly when it is defined by the World Health Organization as a state of complete physical, mental and social well-being (Qtd. in McManner, 8). Good health is not simply defined as the physical or biological health but also as the spiritual and emotional mental states of a person's life (McManner, 9). McManner believes that by achieving these elements of health a person will reach a state of total health and well-being (12).

To represent this idea of total health, she uses a diagrammatic health triangle to demonstrate the interconnectedness of a person's biochemical, physical and emotional health in relation to their general health and well-being (McManners 13). Each corner of this triangle is to be presented within the design of the wellness centre, providing users with a range of the opportunities to explore areas of their health in an attempt to achieve total well-being. The triangle offers each user as an individual the chance to assess their own state and to recognize where they need to make changes (13). This idea of holistic health contends that each individual should be encouraged to take responsibility for their own well-being and total health, and others can only to assist and support the individuals in decision making (Kopelman, Moskop, 213).

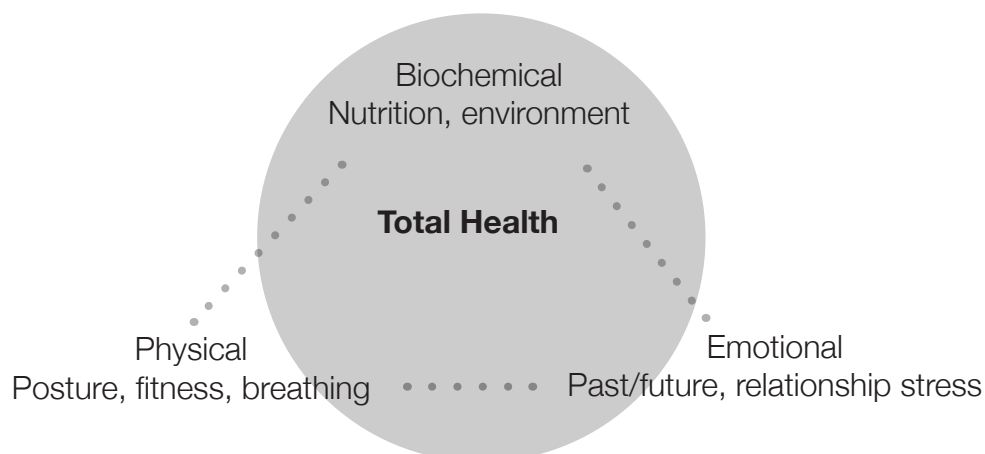


Figure 2: Triangle of Total Health. Adapted by Author from McManners.

3.3.3

As advocates for a natural and non-invasive means of promoting well-being, a number of holists emphasize the natural healing process of the body by encouraging low-tech techniques such as exercise, meditation and relaxation (221). The exploration of these natural healing processes can inform design decisions and programming with the intent of restoring the natural balance of the body to those healing from an eating disorder.

Concept	Writer/Theorist	Idea	Description	Design Considerations
the human body	Merleau-Ponty	The Temporary Body	Describes the body as a provisional sketch, that is constantly changing and needing revisions. Proving that the body is no longer valued in its natural state.	Allowing people to perceive the body in a more constant state. Spaces that focus on the treating the current body and not focusing on the future or the body.
	Merleau-Ponty	Human Body as a tool to Perceive space	The body is our tool to be able to explore and understand space. We can use it to move through spaces and learn about spaces and ourselves. using our bodies to solve space and experience.	Touching door handles, awareness to smells, and materials engaging and requiring body participation.
	Wegenstein	The Fragmented body	Studying the body in this way allows individuals to experience each sense and body function on their own. This gives the opportunity to better understand how to bring them together in a holistic manor.	Providing experiences that focus on individual senses before integrating them into the whole. Designing spaces that facilitate individual experiences as well as group experience.
	McManners Spitz	The Holistic Body	The holistic view of the body means that all parts of the body function at the same time and in a coherent manor.	Designing with a sensory richness that allows the body to experience all aspects of design in relation to their own body's. Using color, light, form, texture to design unique spaces that facilitate interaction and engagement.



The Body + Technology 3.4

Introduction

The Mass Media

Atrophy of Skill

Post-Human

Mediation: Homo Technologicus

Introduction 3.4.1

The prevalence of body modifications and enhancements in contemporary society is clear evidence that advancements in technology are greatly impacting on the state of the body's natural existence and its possible intimate relationship with nature or its lack thereof (Cole, Henderson, 512). With these advancements it is also important to note the great progress that technology has given society. Examining both the positive and negative effects of technology will help to develop an understanding of how to counteract their negative effects within the design of the wellness centre by incorporating technology in a positive way. This understanding will also show how the use of technology can develop a stronger connection to the body through its interactions with nature. These ideas begin to mediate both the elements of technology and the natural body, which this project intends to do.

Although technology is a very broad term, as previously mentioned for this specific project the term technology will encompass two major categories: the mass media and the atrophy of skill.

The Mass Media 3.4.2

As defined by Heinberg and Thompson, the mass media are explained as the modes of communication that generate messages designed for very large, heterogeneous and anonymous audiences for maximum profit (Harris, 1994; Levine & Smolak, 1998; 340). In terms of body image, these messages suggest that the concerns for health, shape and fashion can be solved by using products such as diet pills, body modifications and cosmetic surgeries (Negrin, 9). Our culture is making it seem essential to enhance the youth and beauty of women regardless of their age (Weitz, 175). The avoidance of any form of beauty enhancements is viewed as a form of self-neglect and disregard of the body (Orbach "bodies", 102).

Through its various modes of communication, the mass media is able to portray the body as a highly digitalized construct, creating a discrepancy between the natural female body and those that are portrayed (Cole, Henderson, 50). Pallasmaa explains that these discrepancies with the natural body and those being portrayed can also be seen as a repercussion of an ocularcentric, vision-focused society (16). The body's focus on vision has disabled the other senses, limiting the body's experience with the surrounding environment, which in turn creates a society that lacks physical, haptic contact. This lack of contact hinders the body's ability to develop a general spatial understanding not only with the environment, but also with the self. The limited physical contact with space contributes to the replacement of the body's actions and motions with machines.



Figure 2: Technology and the natural

The Atrophy of Skill 3.4.3

Technology has been placed in the forefront of daily life and with excessive use has created a dependency on its presence. The reliance on the machine has contributed to the loss of new skills and the loss of existing skills that were once necessary prior to the body's heavy dependence on technology. Borgmann defines the loss experienced here as the degeneration or the atrophying of our skills. By inhibiting our bodies from performing these actions and activities, we have begun to suppress our senses and our ability to connect with the environment (83).

Pallasmaa describes the opening of a building's door as the handshake and introduction to a space; however, the introduction of automated doors has begun to remove our physical contact with the body, creating in turn an absence from space. Robert Yudell calls this absence "frozen speed", which is essentially replacing our own body movements with technology and reducing all physical contact with the environment (qtd. in Cspregi 5). This reduction and replacement of body movement is creating an immobilized body that is exempt from such tasks as opening a door (5). The lack of body engagement promotes the belief that the body should be replaced by another entity better suited for the pressing challenges imposed by an environment, one that is even more strongly conditioned by new technologies (Maldonado, 18). It seems as if our bodies have been pushed out of contact with the environment and become obsolete to how a city functions, unless of course the body is upgraded.

Post-Human 3.4.4

These expectations on the body are changing the value of the human body and its natural existence, turning it into a Cyborg; part biological and part artificial human being. These new human forms refer to something developed with extensive technological enhancements that are radically distinct from the body's natural being (Orbach "Bodies" 129). Although we may not currently refer to ourselves as cyborgs, the popularity of body modifications and enhancements are greatly increasing the presence of this idea and making it more of a reality.

These technological enhancements cannot be eliminated; however, developing a basic awareness of the natural body can be learned so as to avoid the natural body being entirely replaced by new technologies. This mediation involves the body, technology and nature all coming together to support each other.

Mediation 3.4.5

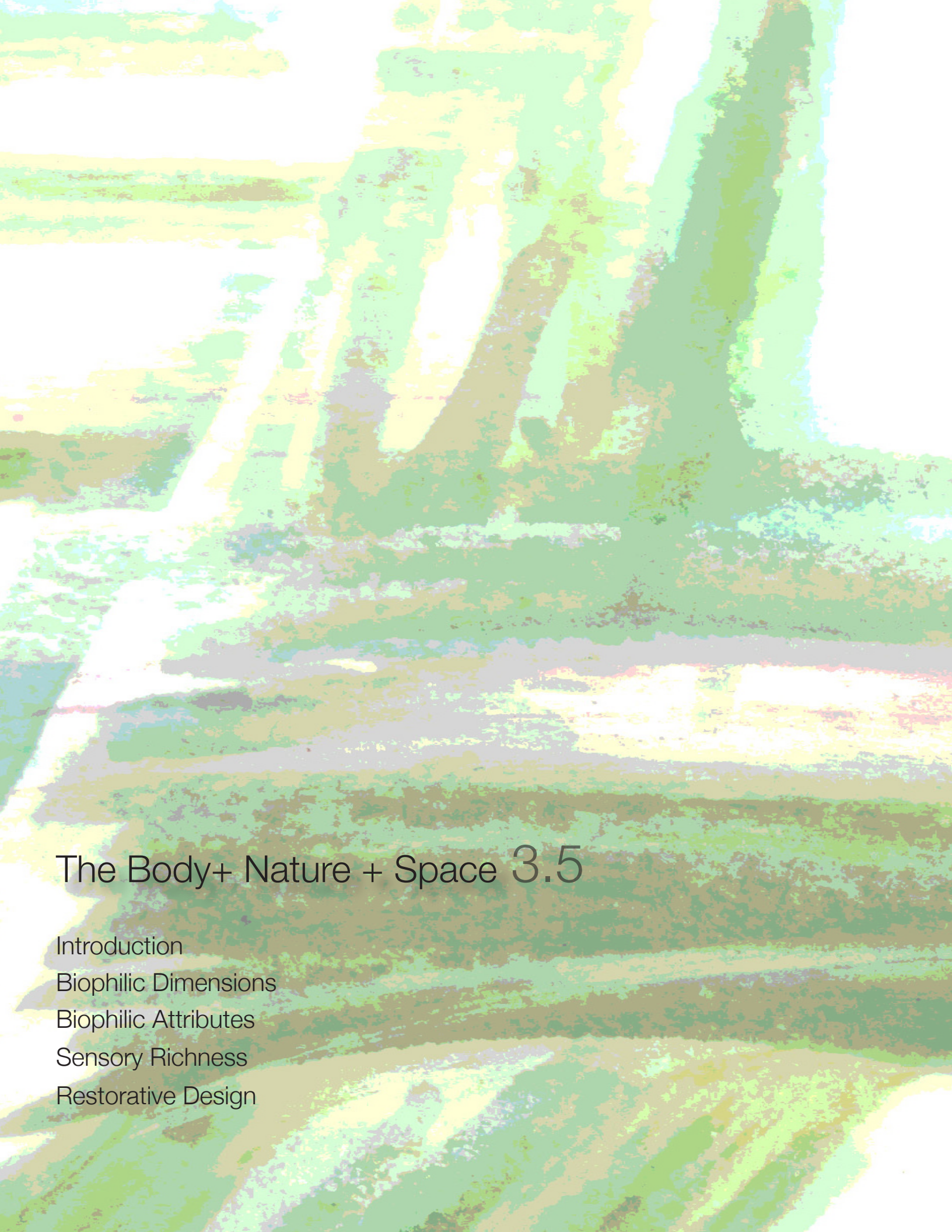
The undeniable and ever-evolving relationship between technology and nature is evolving and intertwining into what Giuseppe Longo calls Homo technologicus (23). Homo technologicus is the integration of technology and nature through discrete moments of convergence (qtd. in Maldonado, 19). Here is where these seemingly contradictory elements of technology and the body are molded into a unified system to enhance the bodies experience with space.

In terms of interior design the connection between nature and technology can be explored through the use of large expanses of glass, retractable ceilings, and green walls. Each of these technologies enhances and strengthens the body’s connection to nature and biophilic experiences. The challenge for this centre will be to combine these seemingly contradictory ideas of nature and technology, while allowing technology to be used in a supportive position within space and to maintain the presence of nature within interior space.

While technology is currently experienced in relation to the devaluing of the natural body and in terms of technology being set between the body and space, the framework of the centre aims to maintain all elements of nature through its moments of stability and change. Understanding the connection between these moments will help the devalued body discover its place in space through a strengthened body awareness.

Concept	Writer/Theorist	Idea	Description	Design Considerations
The body and Technology	Yudell Pallasma	Atrophy of skills Ocularcentric	Technology has taken away our ability to use our bodies and have physical contact with our surroundings. No longer exploring certain bodily functions Vision focused only use our eyes.	To design a centre that physically engages users and forces them to use skills that have become obsolete to us. Designing flexible spaces that encourage various activities to take place. Engaging discussion and thought through design Encouraging the interaction of users with space.
	(Featuring Females) Heinberg/Thompson	Mass Media	Media constructs rather narrow and stereotypical portraits of women connecting the high incidence rate of eating disorders and body dissatisfaction in women.	Truth in design. Designing spaces using materials that are natural and do not hide aspects of time. Spaces that do not focus solely on appearance but are judged based on their function. No display of images that can be compared to the self
	Borgmann Orbach Longo	The Post-human Homo-technologicus	Our bodies have become greatly impacted by technology and are becoming a blend of both nature and technology.	Design spaces that use nature to engage the natural body. Allow technology to gently be incorporated into nature, using it only to bring the body closer to nature.

Summary chart of the body and technology research



The Body+ Nature + Space 3.5

Introduction

Biophilic Dimensions

Biophilic Attributes

Sensory Richness

Restorative Design

Introduction 3.5.1

Technology's impact on society has created a breach between the human body and space. This breach fosters the belief that the body can exceed its natural heritage, by developing practices that encourage over exploitation as well as environmental and body degradation (Kellert, Vii). The neglect of the human-nature connection in modern architecture and construction has created a divide that is described by architectural historian Vincent Scully. He states that the relationship between structures and the natural world has been neglected due to the fact that society today is blind to anything that is not focused on itself and the urban world. In this sense, nature is the element that is most neglected (qtd. in Kellert, xi).

The lost affiliation between humans and nature is instrumental to the productivity and physical, emotional, intellectual and spiritual well-being of the body and each is part of its biological inclinations (Kellert, 3). The recognition for the need of the connection between humans and nature provides an opportunity for integrating the concepts of biophilia within interior design.

The following framework of biophilia will be examined to develop a space that integrates and connects our bodies to nature in a positive and beneficial way for both the body and the spatial environment that has been lost in modern architecture.

Biophilia 3.5.2

Biophilia is based on the idea that “humans possess a biological inclination to affiliate with natural systems and processes that are instrumental in their health and productivity” (Kellert, 3). This contact with nature is important in the functioning health and well-being of human beings (3). Experiments indicate that natural settings can have substantial psychological and physiological restorative effects from stress and other negative based emotions (Ulrich; Ulrich et al.; Hartig et al; Parsons et all; Parsons and Hartig 200; van den berg et all; Kellert, 91).

Biophilic Dimensions 3.5.3

According to Kellert, two main dimensions of biophilia help explain the general concept and how to apply these dimensions to interior design (6). These dimensions are:

1. The organic/naturalist dimension uses shapes and forms found in the built environment that directly, indirectly or symbolically reflect the inherent human desire for nature.

Direct: day lighting, plants, animals, and ecosystems
Indirect: Nature that requires human contact (potted plants, fountains).
Symbolic: No actual contact with nature, but representation through images, pictures, videos or metaphors (6).

The organic/naturalist dimension can be a very useful tool in the design decisions made for the wellness centre to find ways to connect the users to nature in different ways, whether directly, indirectly and symbolically.

2. The place-based or vernacular dimension refers to buildings and landscapes that connect people to the culture and ecology of the environment. Vernacular design creates a better spirit of place that can be essential to the individual and collective identities (6). Although not necessarily nature-based, place-based design is very important in developing a connection to space. Wendell and Barry explain that without a complex knowledge of one's place and the faithfulness to the place, it is inevitable that it will be used without care and will eventually be destroyed (qtd. in Kellert, 6). The connection established to a place through vernacular design can be related to the current state of the natural body. It is hoped that developing a deeper connection to the body through spatial exploration and nature will result in less concern or desire for altering or damaging the natural body.

Biophilic design provides a great framework that brings "designers into nature and nature into buildings", revealing how much more alive our buildings and new technologies can be (91).

To investigate how biophilia can be expressed in building design it is important to question what it is about nature that creates a sense of pleasure, well-being and engagement with place (227). Understanding nature will help the design draw a pleasing aesthetic that engages our sensory system with experiences derived from qualities of nature.

Biophilic Attributes 3.5.4

Nature presents a sensory richness and variety in patterns, textures, light and colors that lend themselves very well to a sensory exploration with the body. A rich sensory environment surrounds us with visual delight, sounds, haptic sensations and variations of temperature as we move through space (229). All of these sensory sensations can be found in nature, but the influence of biophilic design can show how architecture and design can evoke these qualities in the design elements. Many of these elements include the use of light, air, materials, color, spatial definition, movement patterns, openings and enclosures, volume definition, and interior and exterior connections.

According to Kellert, seven basic attributes form the structure to achieve a biophilic approach. These elements can be translated into spatial experiences within interior design and are as follows:

1. Sensory richness: color, odors, sounds, tastes, haptic, visual sensations fluctuate with time.
2. Motion: continuously changing positive motion that captures our attention and ongoing fascination making people comfortable and content.
3. Serendipity: ephemeral and unexpected experiences play with the way light casts on objects or the beauty of an object up close.
4. Variations on a theme: rhythm, balance, sense of pattern and harmonic relationships.
5. Resilience: Creating spaces that are more resilient to natural occurrences.
6. Sense of freeness: the lack of boundaries, natural environments that offer choice and opportunities.
7. Prospect and refuge: Prospect- visual access Refuge- enclosure. Appealing space will offer both elements expressing movement and stimulating speculation of what lies beyond. (324-325)

3.5.4



Figure 4



Figure 5



Figure 6



Figure 7

Brightness. Variability. Natural Rhythms. Patterns. Movement. Complexity. Curvilinear. Views. Playfulness. Enticement. Balance. Sensorial. Diversity. Refuge. Water. Reflection. Proportion. Contrast. Vegetation. Horizon. Prospect. Harmony. Openness. Planes. Enclosure. Canopy. Windows. Outdoors. Textures. Natural Forms. Exploration. Line.

3.5.4

Sensory Richness	Motion	Serendipity	Variations on themes	Resilience	Sense of Freeness	Prospect and Refuge
Color, odors, sounds, tastes, haptic, visual sensations fluctuate with time. Color Water Air Sunlight Plants Animals Natural Materials Views and Vistas	Motion that is always changing Water Light Patterns Natural Processes Sensory Variability	Ephemeral and unexpected experiences. The way the light casts on objects. Natural light Filtered and diffused Light and shadow Reflected light Light pools Warm light Light as shape and form	Rhythm, balance, sense of pattern and harmonic relationships. Age, change, patina of time Growth Change in floor patterns and material to distinguish areas.	Spaces that are more resilient to natural occurrences Designed to work with nature. The ability to adapt the facility to meet the changes in programming over time	Lack of boundaries, natural environments that offer choice and opportunities. Exploration of different qualities of space. Open spaces that draw the eye in an upward direction. Gradual change in ceiling heights and angles.	Elements expressing movement and stimulating speculation of what lies beyond Curiosity and excitement Security and protection Attraction and beauty Fear and awe

Summary Chat of Biophilic attributes in relation to space

These elements and design attributes are all equally important and play a great role in defining how to re-connect people, space and nature. These attributes lend a variety of spatial characteristics and design elements that can be adapted and applied to interior design. Water, for example, has integral qualities that act as a unifying element of nature and space (43). Water can be transformed into many forms and used with many other design elements in interior space that designers can use as inspiration such as:

Water as sound

Water with sunlight

Water on natural materials

Moving water

Water as cooling system

Storm water collection

Biophilic elements have measurable benefits that are relative to human performance, productivity, emotional well-being, stress reduction, learning and healing, making this connection crucial (326). The need to re-establish the connection between people, nature and the built environment will create an inseparable link that teaches us to value the natural, without any transformations.

Sensory Richness 3.5.5

Experiences of the senses are the grounds on which a wider geographical understanding can be constructed (Rodaway, 3). The exploration of these senses can help in determining the way spaces feel and contribute to the general understanding of space.

Although the body truly experiences through the “polyphony of the senses”, where the eye collaborates with the body and the other senses are strengthened and articulated by the interaction of each individual sense (Bachelard, 6), in today’s society the focus is on the eye, which allows this individual sense to dominate (Pallasma “Eyes of the Skin” 16). The dominance placed on the eye begins to suppress the other senses from functioning and alienates the human by detaching it from the surrounding world and itself (Pallasma “Eyes of the Skin” 19). The dominance of one sense can limit the experiences that the body will have with the surrounding environments to the point that the other senses become atrophied and lost.

To apprehend the purpose of each of the body’s sensory systems, it is important to analyze how each sense functions. By understanding each sense individually, it is easier to apprehend how to use them in a multi-sensual nature. Papanek explains the idea of discovering and using all of our sensory capabilities together to be able to explore space, noting

“Seeing helps us to enjoy architecture but only seeing can hinder us. We need to come to our senses again.”
(qtd. in Saito 224)

3.5.5

Haptic (touch)

Touch is described as perhaps the most truthful sense because of its direct and intimate nature; therefore we place trust in our sense of touch to explain and understand our experiences. Touch involves the whole body and is literally the pressure on the skin or the contact of the body with the environment around us that is perceived through motion (Rodaway, 44). The body touches to feel surfaces, geometry, materials, location, texture, weight and energy, all of which are elements specific to interior design.

Design Consideration

The way materials are used within a space can create a desired atmosphere and can influence the ways for experience to develop. Space can become relaxing and peaceful given the characteristics of the materials the body comes in contact with. Here materials can be explored for their ability to interact with users as well as for their ability to change naturally and to show dimensions of time by allowing nature to evolve without society's attempt to defy it (Saito, 150). The evolution process displayed in the materials will be unlike the ageless materials that technology has created today (Pallasmaa, 32). Material selection will convey the idea that there is beauty in age.

Image of the exploration of touch

Auditory

Sound is a physical reaction concerned with motion of activity through vibrations and the resonance of substances (Rodaway, 90). It is an experience that completely surrounds the body and penetrates it from all directions (97, Pallasmaa, 49). Sound can create, shrink and extend spaces as well as focus spaces generating an overall atmosphere that either invites or deters people. Without sound the dynamic elements of a space can be lost or, if intended, increased through the elimination of sound.

Design Considerations

Sound within this wellness centre will be maintained and designed to invite users and to create a peaceful space while still stimulating this sense. To achieve this desired atmosphere the space will attempt to restrict and engage auditory interactions in different ways, using sound to delineate desired actions and behaviours within certain spaces.

Image of a spider web depicting silence

3.5.5

Olfactory

Smells play a large factor in determining the atmospheric quality of a space and the experiences that a person gains. Our sense of smell gives us primary access to an atmosphere and induces a reaction. Smells can trigger memories of a space or of certain experiences with a place or person, forcing people to judge based on these past experiences (Cspreji, 43). Smell plays a large role when it comes to eating and food preparation, which are key programming elements within for the wellness centre.

Design Consideration

The design strategy here uses smells to make people feel comfortable and relaxed. Concepts of aromatherapy will be explored, which will create a consistent smell within space that maintains a familiarity associated with the space.



Image of herbs that depict a sense of smell

Taste

Taste is often associated and integrated with the olfactory function of the body. Smell and taste often coordinate when the body takes in food to determine flavor sensations; however, when determining spatial experiences they remain as separate functions. Users will experience the sensory delight that taste can offer the body by learning and understanding basic elements of nutrition and cooking skills.

Design Considerations

Taste has the unique ability to create its own multi-sensory experience within the larger context, such as when tasting something that is crunchy, mushy, smelly yet visually appealing (Saito, 119). The engagement with taste will offer unique experiences to the user in both a functional and playful way. Providing the users with nutrition counseling will teach them the positive and healthy benefits of food as well as the exciting sensations food can offer the body. The space will also provide a café that engages both taste as well as the social qualities involved in eating that can be a challenge for users with an eating disorder.



Image of sugar cubes that depict a sense of taste

3.5.5

Visual

The tendency to reduce all sensuous experience to visual terms is quite evident in our contemporary culture. What is often forgotten is that the visual sense is often supplemented by the other senses in order to define an experience (Rodaway, 117). Using vision can help to determine and make decisions regarding color, light, shadow, shape and size. Vision can guide the body through space, creating experiences that become a tool to determine atmospheric qualities of a space, which can also trigger certain emotions.

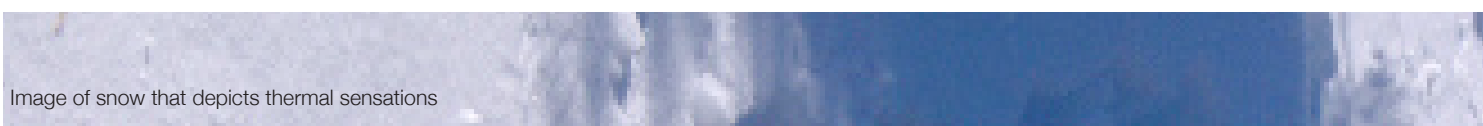
Design Considerations

Visual interactions will naturally occur within the space; however, they will not engage users in any negative way, for example, by portraying female images that can be compared or internalized. It will be preferred to use images of nature and to create sight lines that connect the users to the outside community and surrounding environment.



Thermal Design

Thermal design can be incorporated throughout space in a many ways exploring the various sensations the body can experience through different temperatures. These sensations can also be explored and integrated through the concepts of shade and shadow or warm and cool when walking down a hallway (Heschong, 20). Shade and shadow can be integrated with the use of natural light and windows, to create desired patterns with light.



3.5.5

Integrating these sensory elements into design can provide the opportunity to re-introduce the body to its sensory capabilities and connections to space by using nature within interior design. Nature allows the body to explore a sensory richness that defines atmospheric qualities and spatial experiences. Ashley Montagu states that the western world is beginning to notice the neglected senses and the deprivation that we are experiencing within the technical world. This awareness is forcing architects and designers to re-sensulize architecture through materials, light, hapticity, weight and other elements besides the eye (qtd. in Pallasmaa 37). This growing awareness and new presence for sensory design can help provide people with a greater understanding of the body and the amazing qualities it possesses.

A real concern for the sensory realm is urgently needed to utilize the body's full capabilities so it may become less vulnerable to manipulation and exploitation (Pallasmaa "thinking hand" 21). Achieving this goal within the centre's design will let the body feel pleasure when it discovers its resonance in space (Pallasmaa "Eyes of the Skin 67).

Restorative Design 3.5.6

Restorative design is an aspect of biophilic design; it is the reconciliation and harmonization with nature through restorative and environmental design practices (Kellert, 5). This design approach attempts to minimize the harmful impacts that technology has had on the natural environment while fostering a positive contact between people and nature by restoring these impacts and not simply trying to prevent them from occurring (5). Current environmental building practices attempt to make a building more sustainable for the future, while neglecting to realize the present situation. Restorative design practices will be implemented in the development of the wellness centre by finding ways to incorporate nature into the site that attempt to revive and restore it (Berkebile, 9). Replacements such as converting paved surfaces into forests and wildlife corridors or using porous paving materials that allow water and land to drain naturally into the ground can be used to diminish the need for storm sewer systems (9).

Attempts at restorative design are being made by designers to use once again nature as a mentor in their designs. These attempts will make buildings more lifelike and capable of meeting their own needs for resources such as water and energy. (29). Interior design has the ability to aid in the restorative practices by incorporating nature into design in a more functional way and allowing the body to re-connect with nature. This project will study nature and its fascinating processes to develop strategies that bring nature back into space, fostering the integral connections between the body, nature and space.

Framework Summary 3.6

The analysis of this framework has made it clear that the disconnect between the body and space is causing many disorders in women but that attempt to be repaired through a stronger connection with the body, nature and space. While the human nature connection can be explored through design, it is still critical to understand technology and to embrace its advances to develop a balance. This balance is crucial as the likelihood of technology disappearing is unlikely.

The purpose of the design project is to help women develop a more enhanced self-awareness and understanding of the natural body through multi-sensory experiences with nature. The exploration of the body's inherent connection to nature can form the basis for a biophilic approach to an interior space that fosters the connection between the body and space.

This wellness centre will be a new support system that will hopefully prevent the relapse of harmful behaviors towards the body such as eating disorders and begin to alleviate the pressures that are put on the natural body.

Part 4

Precedent Review

Precedent Review 4.0

The exploration of different design mediums has revealed some examples that portray strong concepts of body and space, sensory experiential design and biophilic inspired spaces. These examples will become an inspirational and fundamental in creating the guidelines proposed by the design of this wellness centre.

Key Features: Programs.Lifestyle. Holistic healing. Choice

Precedent Review: Casa Palmera Treatment Centre

Casa Palmera is a facility that treats individuals struggling with an eating disorder, chemical dependency and or chronic pain. Casa Palmera is committed to providing superior treatment to individuals and their family through their unique holistic program of healing. They place attention on education and awareness of a healthy lifestyle through the integration of fitness, eating, stress management and spiritual reflection, which all take place in a beautiful, tranquil environment. Sprawling over 5 acres, Casa Palmera is a beautiful award-winning facility, with a therapeutic ropes course, organic vegetable and herb garden, koi pond, and many beautiful gardens. A noticeable theme in the outline of their programming is the option for the user to have control over their decisions and on their desired healing program.

The unique programming ideas that are offered at Casa Palmera were analyzed and explored for their ability to be adapted into the program at this wellness centre in Winnipeg Manitoba.

Herb Garden Water Feature Fitness centre Nutrition counselling Reflection spaces

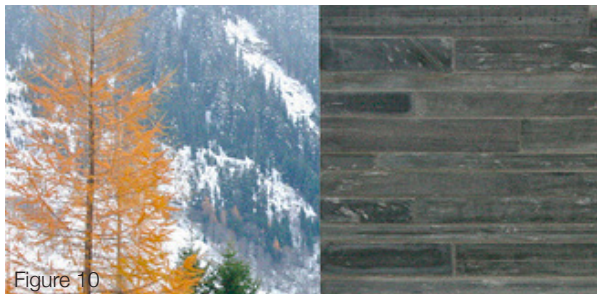
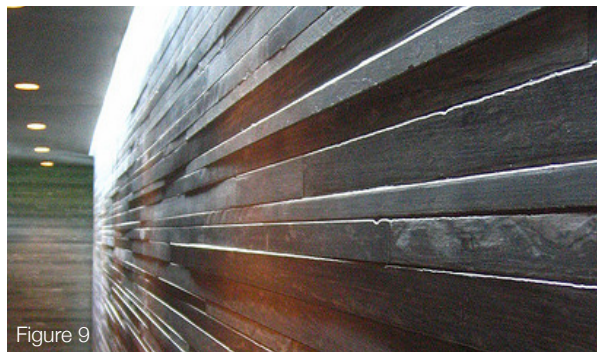
4.2

Key Features: Light. Water. Integration. Choice

Precedent Review: Thermal Baths: Peter Zumthor 1996 Vals Switzerland; a remote alpine village

The historical bathing techniques that are explored here were an excellent precedent to this wellness centre to investigate how to awaken the senses using simple and natural elements. This precedent also provides great inspiration for the integration of technology and nature in a harmonious and simple way. The space uses nature in the forefront of the design supplemented with technology to help sustain and maintain the design.

Natural elements such as water, light, color, and heat are used to add definition to individual areas within this ritual bath, stimulating various sensory experiences for the user within one space. By contrasting the heaviness of the concrete structure the designer creates intimate interior spaces within each sector that differ in temperature, smell and color. This makes each adventure through the baths unique and different allowing the user to invent their own itinerary (Zumthor). This exploration shows how choice can be integrated into the design of space.



Light Color as Highlight Natural Material Views Water Pattern Balance

4.3



Figure 11



Figure 12



Figure 13

Key Features: Integration of nature and technology

Precedent Review: Sidwell Friends Middle School

Sidwell Friends Middle School located in Washington DC. is a great example of a biophilic inspired building that integrates nature into both the functional and aesthetic elements of the building. The building focuses on responding to all natural elements through its “skin” and producing something functional from this response, which is a strong element of biophilic design. This design functions well in evoking a sense of nature in users both directly and indirectly, which again is a main concept of biophilic design. The integration of technology is well placed within this biophilic design. Technology is used to make nature appear in a very natural state such as the creation of a pond where it seems natural and not constructed. This school is a great example and was an inspiration to this wellness centre both functionally and aesthetically for the great inspiration that they have taken from nature and the applied elements of biophilic design.

Biophilic Attributes Functionality Grey Water Solar Panels Building Skin

4.4



Figure 14



Figure 15



Figure 16

Key Features: Nature. Contrast. Barrier

Precedent Review: Quay Branley Museum: Jean Nouvel

This precedent uses technology to maintain the users connection with nature and vegetation by placing an emphasis on nature and allowing technology to support it.

Within this design geometric shapes meet flowing curves, glass meets natural wood and concrete meets vegetation. These combinations explore materials that typically contrast each other, but are experienced in a harmonious way within this design.

These design choices seem to be what sustains the concept of nature and technology within this design. To create an overall result that is harmonious and unique. Nature covers the site of the building and spills inside in various ways providing a sound barrier between the museum and the busy urban area that surrounds it. This not only begins to blur what is interior and exterior but it creates a design that brings users closer to nature on many different levels.



Vertical Gardens Contrasting materials Wood vs. Acrylic Straight vs. Curved



Figure 17



Figure 18



Figure 19

Key Features: Light. Abstraction of nature. Sensory Stimulation.

Precedent Review: Wellness Centre in the Exedra Nice Hotel: Simone Micheli

The wellness centre was designed for psycho-physical regeneration and recreational relaxation of the body. The theory behind the space is based on the idea of basic well-being through relaxation similar to that of a spa.

The design is the expression between the possible and wanted union of architecture, sensations and wellness creating a wonderful dream that aims at the unreal. This creates what Simone calls a sinesthetic visual, conceptual and volumetric celebration of the relationship between man, built up space and wellness. To achieve a strong relationship he uses materials, light, color, sound, fragrance and water, creating an interactive space.

He contrasts the use of his plastic materials with wood and other natural materials that creates various experiences. The experience had in this wellness centre offers guests the chance to relax and live a sensorial experience in a dream like reality. This precedent has a strong relationship to sensory design through space and material interaction.

Curvilinear forms Sensory design Sound of Water Light Wells Relationships

Design Investigation 5.1

This chapter explains the explorations involved in this project that helped inform the design of this wellness facility, which attempts to bridge the gap between the body, technology and space using the concepts of biophilia that were outlined in Chapter 3.

Technology is not a fad soon to disappear from society; it is something that is only growing a larger presence. Given this fact, it becomes important to mediate technology and nature to protect the natural state of the body. It was hoped that the outcome of this investigation would provide an understanding of how technology could be used in a positive way towards the body within an interior design project, that is, to find a way to use technology in design to support and strengthen the body's connection to nature and not to overwhelm it.

The concept for this investigation was to create an object for the body that blended the body, nature and technology in a harmonious way that would act as a reminder of these integral, but unrecognized connections. Applying this concept, the hand was used as a principal part of the body that this object would adorn. The hand is one of the many tools used to connect to space and was used to connect to the art of making, both of which have been lost. As a tool the hand was employed to build and create this object, As such, the hand was the spot where the object would sit.



The hand

The tool for making. Feeling. Connecting. Touching. Experiencing.

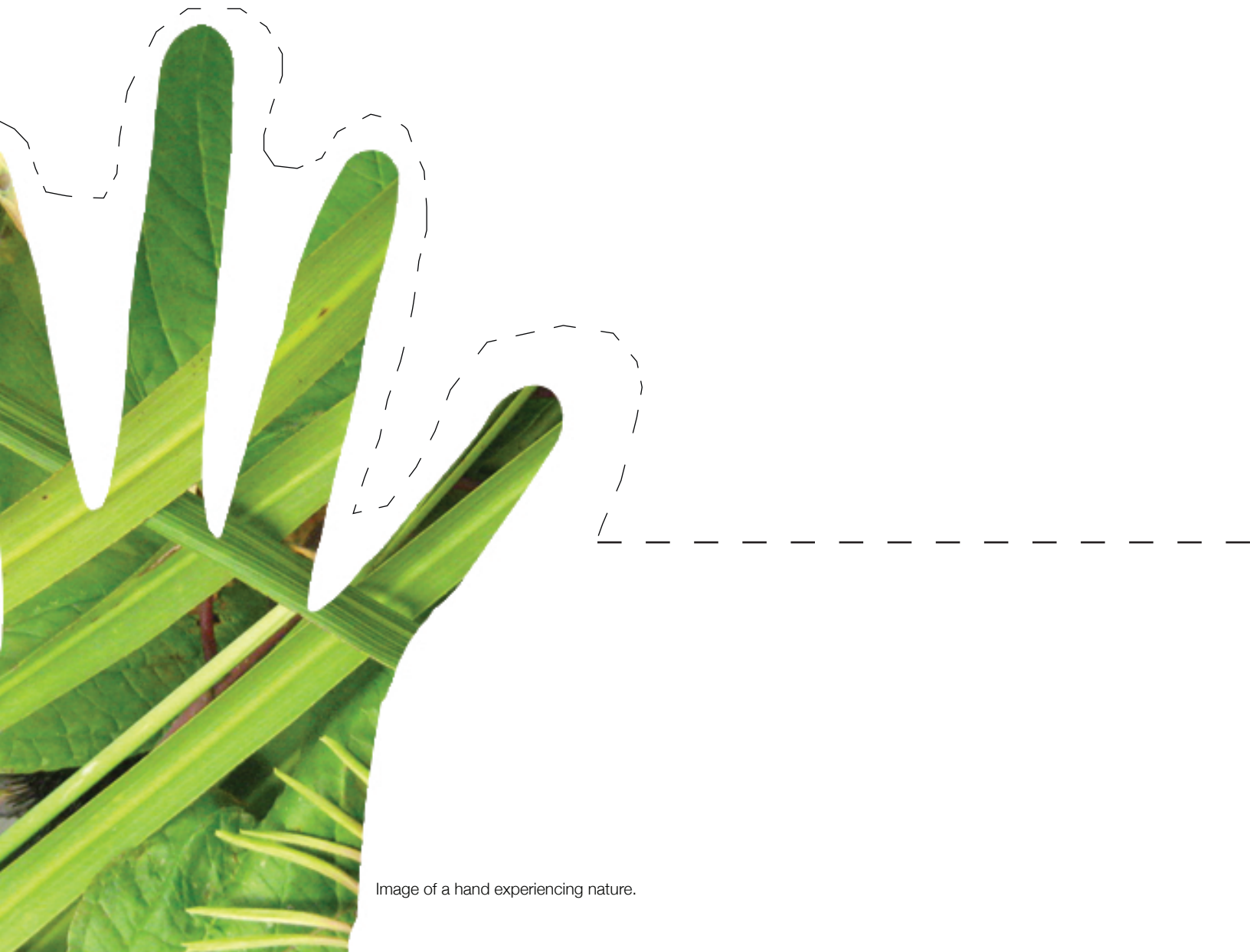


Image of a hand experiencing nature.

5.1



Methodologies of nature found around the site.

Objects used in this investigation were found in nature and selected for their unique qualities of color, smell, flexibility, transparency and weight. Each object was photographed and carefully examined based on the methodologies of nature developed by Janine Benyus who explored ways of learning from nature to apply to design.

Nature runs on sunlight

Nature uses only the energy it needs

Nature fits form to function

Nature recycles everything

Nature rewards cooperation

Nature banks on diversity

Nature demands local expertise

Nature curbs excesses from within

Nature taps the power of limit. (Benyus, 7).

Layering
Cycling
Dividing
Shredding
Pulling
Patterning
Sectioning
Dividing

rying
Drying

Changing

Overlapping

g Weaving

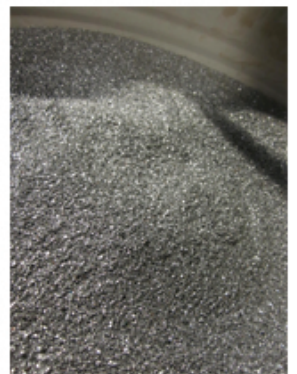
ctioning

oning

Adapting

Adapting

These methodologies were further abstracted into general concepts that described these processes of nature and how they can relate to design. These methods were also used to examine technology and how technological items were broken down, which revealed many of the same principles found within nature.



Methodologies of technology that were compared to the methodologies present in nature





Using these terms as a frame of reference, objects were created based on these principles. Various objects were created, explored and combined to finalize an object that exemplified the facility's concept in the most appropriate way. The object that had the most conceptual clarity to nature, technology and the body was the following. While this object had a connection to each individual principle, it lacked elements that made the object act as a whole and function in a harmonious way. Technology was simply attached to nature but with little integration to the object. A second version of this object was then created based on the same idea; however, in this case it literally wove the wire (technology) with the leaves in order to strengthen the connection between the hand and nature. This manipulation of the object strengthened the object's ability to touch and rest on the hand. This object used technology to bring nature closer to the body while still maintaining the integral properties of nature. The object still allowed nature to evolve and change, but using technology it created a stronger framework for nature to become closer to the body.

These various design investigations and objects resulted in a way to include technology into the design of this wellness centre by using it to enhance the body's connection to nature but not replace it. Technology will therefore be used for its strength, relative permanence and ability to blur what is outdoors and what is indoors. This will allow the users to be surrounded by natural elements and variations of nature without interrupting nature's ability to change and transform.

Following these design investigations the images were abstracted to further study the patterns, connections and relationships present within these objects.

5.1

The following images were taken during the experimentation and creation process that helped to develop the final object that would adorn the hand.



Natural objects were combined with elements such as wire and copper to blend incorporate both technology and nature with the body. The wire was used as a way of tying and securing the grasses and leaves to make wearable objects.





The Abstracted methodologies of nature were used as ways of combining these elements and helping to create forms. The grasses were woven and wrapped around other pieces of grass and secured with wire to maintain the desired shape.



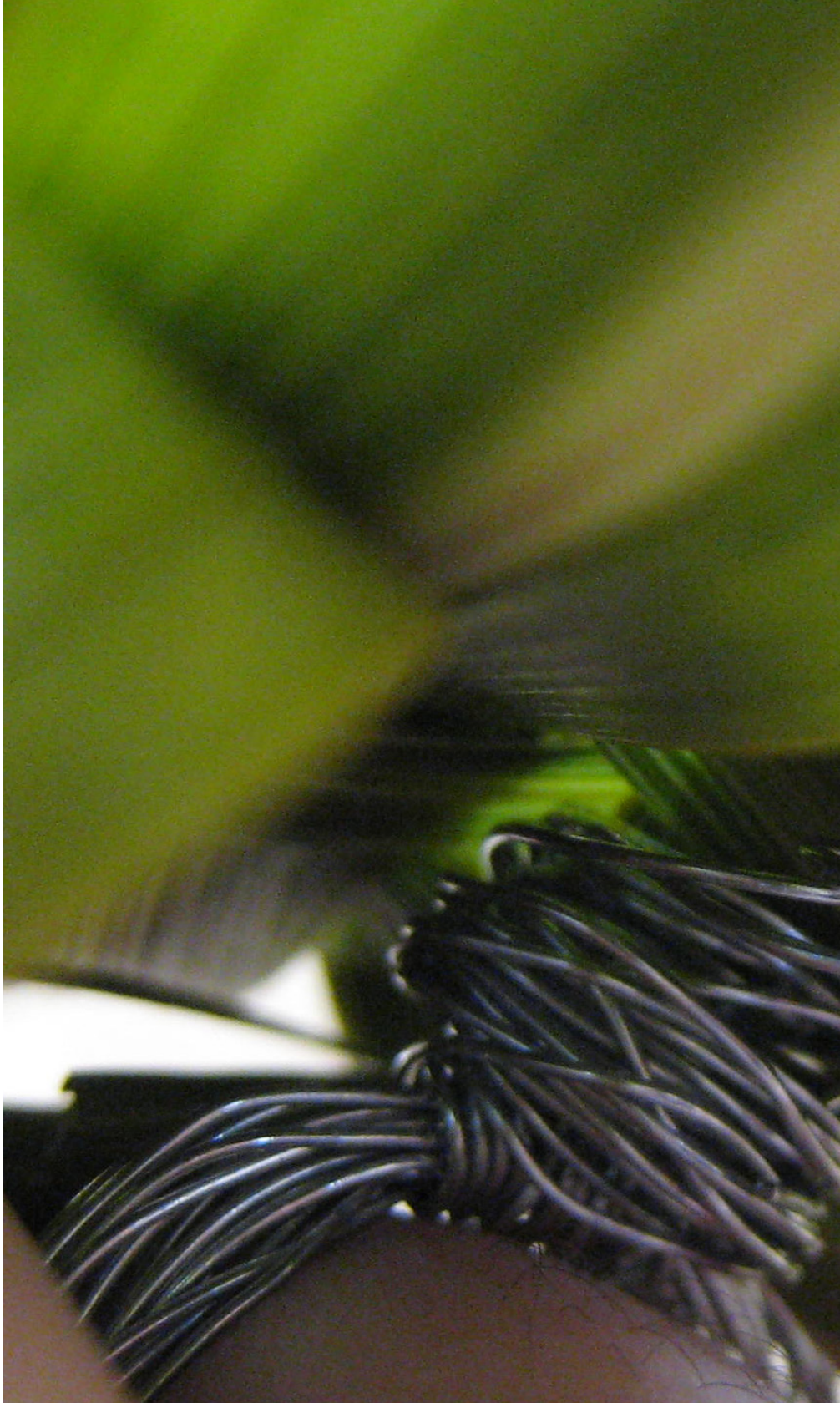




One object creation during the design investigation process



One object creation during the design investigation process





Object 1



5.2

The object to the left exemplified the strongest conceptual exploration. Weaving nature and wrapping it within itself to create an interconnected form that displayed a sense of ordered complexity. This object used nature to connect it to the body however it did not integrate nature and technology. Technology was simply was held the object on the hand. The object did not display a true inter connectedness between all three elements and needed further exploration.





Object 2

The second iteration of this object followed the same concept and basic form however here technology was actually woven through the object in the same way the leaves were woven through. The wire then came through the object to form the rings that attached it to the hand. This displayed a stronger connection between all three elements showing how technology can be integrated into space by being the element that allows the body to be closer to nature. Technology provides techniques and knowledge that can help nature become a part of everyday life

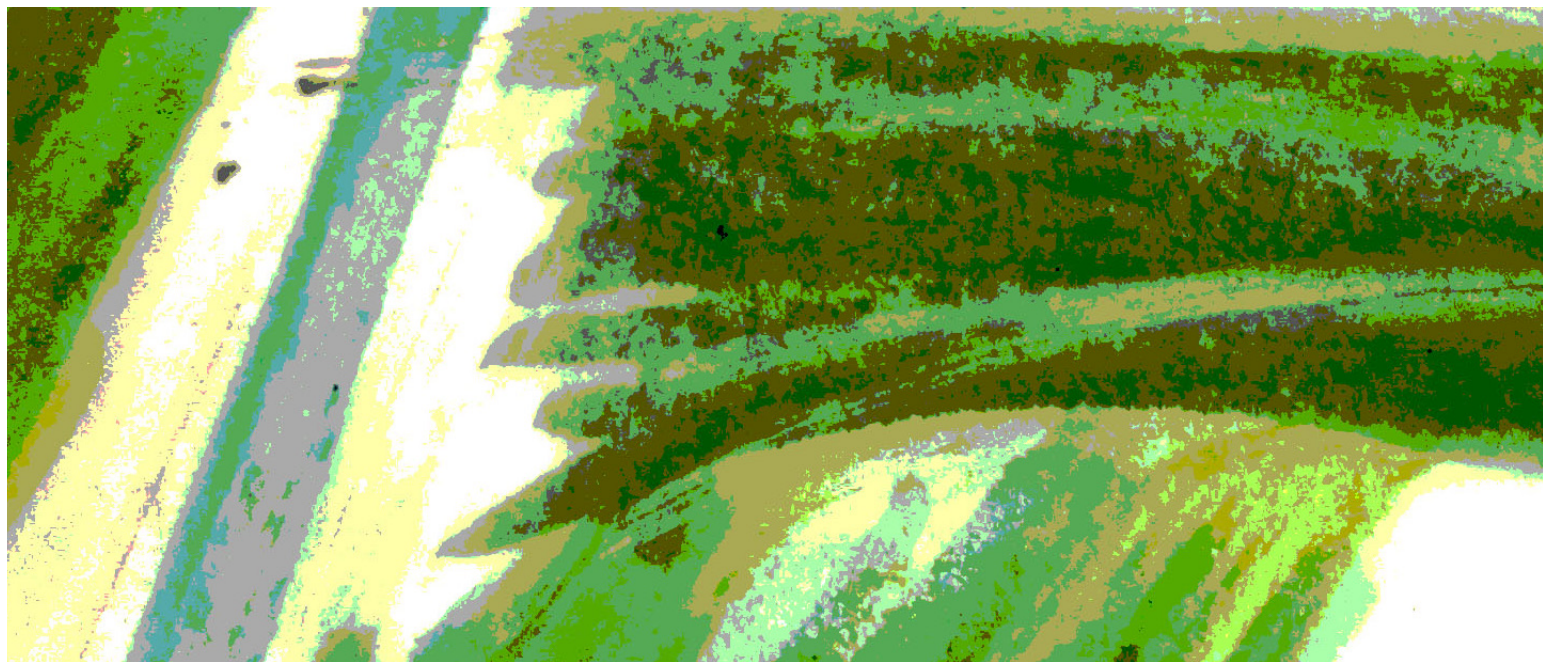


Abstractions 5.3

The Images taken of the individual objects were further abstracted and examined for their lines, forms, repetition and patterns that could potentially be used in the design of this space.









These abstractions of both nature and technology were overlapped onto one image to examine the common patterns and rhythms. This image displayed a unique combination that was applied to the basic floor plan of the space. The combination of both technology nature and the body became the underlying spatial patterning for the layout of the building. This unique design exploration deeply rooted the building in the idea of creating a harmonious balance between nature, technology and the body.

Programme 6.0

The program outlined within this chapter is a detailed description of both the client and user group that will occupy the wellness centre. Also included in the programme is a thorough site investigation of both the building and the surrounding environment. The summation of this information will help to inform the design of this wellness facility and the many decisions made regarding its function.

As previously discussed, this wellness centre has been developed as a prevention, education, support and recovery centre for the many women recovering from an eating disorder and the community that helps to support their well-being. This facility is to serve as the link between the individual in recovery and the hospitals, schools, families, and community involved in these efforts. The wellness facility fosters these integral relationships by incorporating programs that facilitate the engagement and interaction of all individuals involved in the recovery process. The interaction between all parties will raise awareness about this debilitating disorder that claims the lives of many young women.

The structure of this program is an all female outpatient program on a non-urgent or non-crisis basis. It is designed for women 18 and over who have had a past diagnosis of an eating disorder but who are in a diagnosed state of recovery. Women will need a referral from a doctor to be able to join this transition facility. Once they have joined they can begin their journey re-establishing new dietary and personal practices into their lives. Programs are to be offered Monday through Sunday year long. A program brochure is to be distributed monthly to notify users of regular sessions and upcoming programs.

6.0

Sessions will vary based on multi-disciplinary discussions, forums and therapy sessions. The users will have the choice of what sessions they would prefer to attend depending on their own experience, but with a view towards building a holistic view to healing. Certain programs will be private but others will be open to the community, encouraging users to develop new social relations. Daytime events may include visits from schools around the city who are interested in having their young students take part in discussions and sessions regarding the body and how to combat socio-cultural pressures.

The lower level of this facility is a four-unit residence for individuals and, or families who live out of town but are receiving treatment in Winnipeg. This facility is a great way for them to begin their transition into normal and stable living patterns. Each unit is equipped with a kitchen, bedroom, bathroom and small living area to meet the needs of individuals and their families. While staying at the facility the user may participate in sessions, activities and functions designed to help in her recovery or maintenance of her recovery. These units will be reserved on a physician's recommendation only and are not available to women who live in the city.

User 6.1

Women have experienced social and cultural pressures to maintain certain appearances through the way that they dress or their physical appearance (Bordo 22). These pressures have forced women to maintain certain appearances according to mainstream media, resulting in the objectified female body (Daubenmier 208).

Walsh & Devlin consider eating disorders one of the most disabling psychiatric disorders affecting women, with a three-fold rise in occurrence in the past 40 years in women between 20-30 years of age (qtd. in Field et al. 289).

For women who suffer from an eating disorder, the development of their own self-awareness and individual body understanding is often neglected due to their illness (Ciliska et al, 199). Self-awareness, as described by Ciliska, Weaver and Wuest, is the acknowledgement of feelings, inner sensations and perceptions of the body, all of which are diminished in women suffering from an eating disorder (194).

The development of this centre intends to counteract these feelings and help women re-develop their self-awareness by connecting the natural body with a presence of nature. The focus on the self and the exploration of the body will help each individual woman maintain her recovery by viewing the body as a miracle of coordination, curves, resiliency, and as a partner in this journey (Martin, 270).

6.1

The primary users of this facility will be women 18 and over who have recovered from an eating disorder and are needing a support system to maintain their balanced state.

The secondary users of the facility are the staff that will help to maintain and facilitate the well-being of the individuals visiting the centre.

The tertiary users within this centre will be the support staff that care for the facility and maintain the site. They are mainly concerned with the daily functioning of the building and the surrounding area.

Users	Values	Emotional Needs	Physical Needs	Activities	Time
Recovering individual	Experiential body experiences, that maintain body acceptance. Learning healthy practices to maintain well-being of the self.	Private reflection time social interaction Body and mind stimulation Safety Comfort Acceptance	Opportunities to learn about the body through sensory engagement with space. Connection to nature Personal reflection space Social gathering space Washrooms Security and comfort	Exercise, yoga, art therapy, sensory experience, individual and group therapy, massage therapy, cooking classes, nutrition classes, cafe, meditation, social interaction.	Morning, Afternoon and Evening
Facilities Director	maintaining the well-being of the staff and clients of the space and the general day to day functioning	Support from staff and users of the space. Connection to all users of the space	Private office space Private washrooms Boardroom for meetings	meetings with staff and users, meetings with facilities staff, meetings with board regarding funding.	Morning and Afternoon
Multidisciplinary Health Team Psychologists	Helping users maintain their state of recovery through their physical and psychological well-being.	Assessing patients upon referral and maintenance throughout their visits.	Private office space Private washrooms Team meeting spaces, personal storage. Flexible meeting areas	Leading Individual therapy, social interaction, Family meetings. Holding weekly team meetings to assess users and facility f	Morning and afternoon
Counsellors	Helping users maintain their state of recovery through their physical and psychological well-being.	Assessing users progress and maintenance throughout visits and development of skills.	Private office, flexible group meetings spaces, personal storage, casual space for personal matters.	leading group therapy sessions with users, leading discussions and seminars on well-being.	Morning, afternoon and evening shifts.
Registered Dietician	Providing users with unique food ideas that help them develop and maintaining their relationship with food	Developing unique relationships with users to gain trust in helping them heal.	Private office space, group meeting space, flexible meeting areas, demonstration space, kitchen	Leading sessions on nutrition and health, cooking demonstrations, preparing menu in the cafe.	Morning and Afternoon.
Massage Therapist	Helping users to recognize bodily sensations through therapy.	Developing trust in users to maintain a comfort level throughout their healing.	Private and flexible massage rooms, private office with storage.	Individual massage therapy, small group therapy sessions.	Morning, afternoon and evening shifts.

Figure 25
Chart depicting the users and their emotional and physical needs.

Client 6.2

Certain efforts have been made within society to begin to broaden the definition of ideal beauty for women. Larger well known corporations such as Dove, Unilever and other organizations around the country are coming together to promote beauty in all shapes, colours and sizes and to deconstruct and reconstruct societies perceptions of beauty (Etcoff et al.). Communities are beginning to promote courses to help young women combat the media and its representations of the ideal as well as to educate them in the harmful effects related to these representations. The Women's Health Clinic (WHC) in Winnipeg has currently adopted some of these courses and has began to implement them into their current eating disorder prevention and recovery program.

With steps already being taken to promote a new well-being for women at the WHC, as mentioned it is this organization that has been identified to operate the new facility. The space will be designed to expand on their current facility in both size and function.

6.2

Currently the WHC's program is located at their existing location on Graham Ave. in Winnipeg, Manitoba and has a capacity for about 75 patients. Many of these individuals are struggling with an eating disorder or have struggled in the past and may possibly have relapses.

The WHC is the only community-based program of its kind in Winnipeg; consequently, there are an overwhelming number of women interested in its services. The new facility will not only increase the number of patients the clinic sees, but will offer them a more unique and holistic approach to healing and recovery, which is described in the centre's statement but not explored in the current programming and facility.

The many therapy sessions that exist at the WHC focus on a body understanding, self-esteem and emotional control; however, these sessions do not offer or teach the users how to apply the information in real life situations. This new treatment centre will enable users to gain knowledge and apply it all within the centre. For example, learning about appropriate eating practices while learning how to cook them, or learning the benefits that yoga can have on the recovering body while practicing it. All of these tools will help users appreciate their bodies so they can begin to transition back into normal living patterns.

This wellness centre is a transition facility for women who need the support to transition back into normal living behaviors. Not only does the centre offer programs dedicated to body awareness, it also offers the opportunity to practice tasks that are daunting to a person recovering from an eating disorder. The program is intended to have users face these fears in a comfortable facility to prepare their emotional state for when they are faced with these fears in real life circumstances.

Many of the treatments at the WHC will be maintained within the new facility; however, the opportunity to provide the users with more opportunities will be a great benefit to both the users and the WHC. The staff of the WHC will be re-located to the new facility and given private office spaces to maintain their ability to counsel patients and their families in a comfortable and relaxed setting. Each office has enough room to be designed according to the individual preferences of the therapist and or user.

Programs/Treatments 6.3

This centre intends on providing women the support needed to transition back into normal living and daily behaviours. Part of this process is about developing and restoring the connection with the body before presenting this new and loved self to the outside world.

There is a rising interest in finding ways to “return to the body” via exercise, yoga, body therapies, craft work or intimacy with nature to re-corporalize our existence (Leder, 3). Alternative therapies and new ideologies will be explored at this facility, to inspire women to maintain a strong body awareness that can be gained by connecting to their body and examining their body in its natural state.

Many mind/body exercises have been linked to a greater body awareness and responsiveness, which in turn is associated with lower levels of trait self-objectification, greater body satisfaction and less image disorders found in women (Daubenmier, 2009). Experiential therapies such as massage, movement therapy and biofeedback therapy can begin to train the body to understand feelings and sensations from the environment (Zerbe, 173). Many of these movement therapies have been useful in treating patients with eating disorders (173). These new modalities help define the body’s boundaries in less destructive ways (173). The programs offered here will help users develop skills, provide knowledge, strength, trigger emotions, and focus on the self, all of which are based on Weavers model of self-development to help users maintain a self-awareness, differentiation and regulation, each of which were discussed in chapter 2.

The programs are all centered on defining the body in an individual way through the interaction with surrounding environments, people and nature. Many of the programs include nutrition, cooking classes, art therapy, yoga, individual and group therapies, relaxation and transitional practices such as eating in public, banquets, shopping and family gatherings. Each therapy will be discussed to explain how they can help maintain recovery and provide education to both the individual and the larger community support system. The programs have been categorized into groups such as support groups, body image, transitional skill building, and expressive arts. Each program facilitates and nurtures the well-being of the individual in various settings and teaches ways of dealing with their individual stresses.

Support Groups

Individual therapy/ group therapy: Therapy is a major part of overcoming and maintaining recovery from an eating disorder. Although users in the facility have already achieved recovery, maintenance to prevent relapse is crucial. This centre will incorporate individual, and group therapies as well as family therapy that will discuss various topics relating to the body, food, relationships, and the media. Some of the group sessions will strictly be for individuals belonging to the centre while others will involve the community or support system of the individual. The variety of sessions will provide education and awareness relating to eating disorders and also provide support and knowledge for individuals helping a loved one.

Nutrition classes: Nutrition classes will help users understand their relationship with food and how to maintain their health with a well balanced diet. The local grocery store within the centre will help therapists teach users how to shop and read nutritional charts on the foods that will confront them when shopping.

Body Image

Yoga: Yoga has become a popular form of exercise that promotes a direct experience between the mind and the body. Mind/Body exercise is linked to a greater body awareness and responsiveness (Daubenmier, 208). Yoga practitioners value autonomic processes and physical abilities of the body, which attempt to diminish the importance of physical appearance, resulting in greater body satisfaction (208). Although yoga has many physical health benefits, the underlying goal is to unify the mind and body by exploring subtle sensations of the body and learning to listen to what the body says and becoming aware of how one feels not how one looks (208).

Aromatherapy: This therapy is explored through the use of essential oils, steam distillates or aromatic plants to stimulate body response via the sense of smell (Keegan, 321). This form of therapy can be explored within the natural scents that nature provides and the atmosphere this helps to create within this wellness centre or incorporated into massage therapy practices.

Massage therapy: Individuals with anorexia have been seen to have stronger desire for tactile nurturance (Hart et al. 290), revealing that massage therapy reduces anxiety, depressed moods, eating disorder symptoms, poor body image, and biochemical abnormalities for women diagnosed with anorexia nervosa (296). Touch therapy releases higher amounts of serotonin, which improves the mood of the individual,

alleviating some of the comorbid diseases associated with an eating disorder (290). Massage therapy promotes the well being of the body's parts both individually and as a whole, expressing the idea of connectivity between the body and a holistic view of the body. This therapy is offered within this centre as a treatment that can be booked in advance.

Skill Building

Cooking classes: Offering cooking classes to users recovering from an eating disorder is a unique experience. Here users will learn how to cook and shop for various foods to create unique and exciting meals. The process of cooking will hopefully engage users to explore the beauty and sensory experience that food can offer. The art of cooking can be a great way to show users the social benefits of eating, taking away the negative perceptions that they once associated with ordering, cooking, and eating in public.

Local grocery store: Offering users the opportunity to purchase fresh and local ingredients conveniently at the wellness centre is a great way to encourage eating and new cooking practices. This convenience also allows therapists to teach users how to read food labels so that they will be focused for shopping on a day to day basis.

Dining: The act of eating in public can be very stressful for an individual struggling with an eating disorder. Therefore the centre will offer many different ways of dining for users to explore and experience food, in order to alleviate some of the stress often associated with eating in public. The private dining room offers users the opportunity to eat in a formal setting within a comfortable space where they have the opportunity to invite people to join them in their dining experience. The restaurant provides users with another eating experience where they can eat in a public setting. The restaurant will include different seating arrangements, including tables where they can dine with others, bar seating where they dine alone, and even bar seating which is located in front of the kitchen so that they can engage with the chefs while they prepare the meals, which is yet another unique dining experience. It is the intent of this centre to enable users to explore and confront any fears that they may have and food is definitely one of them.

Banquet/event space: The programs and exhibits that will take place within this event space will offer individuals the chance to practice eating in large social settings. Food is often associated with being social, and therefore it can be difficult for someone who struggles with the idea of food. Social eating will bring the community together with the individuals who belong to the centre to educate each other and to learn about the disease in unique exhibitions, discussions or seminars. The centre has the ability to bring in guest lecturers and unique exhibits, or for users to create their own exhibits from the expressive arts program. These programs will enhance the knowledge of others regarding the many issues addressed within the centre such as the body, technology, nature, women and eating disorders, creating educational opportunities within the larger community.

Clothing Fittings: Shopping for clothing can be a fearful task for women who have body issues. Although such purchasing is something that must be done, this facility provides a space for this practice. Users can bring in clothing that they purchased to try on, or clothing that they have in their closet but have issues with. Practicing this task in a comfortable atmosphere with a trusted therapist can bring ease to the thought of shopping in the real world. The gallery space also has the opportunity to become a place where local vendors can showcase their products while engaging with the users.

Expressive arts

Art Therapy: Art therapy is an effective modality for helping people with eating disorders. The creative arts promote new insight and awareness for clients through the process of self-expression (Brooke, 15). It is the expression of one's thoughts and feelings through the creative process of art by understanding his or her underlying psychological issues (15). It allows users to tap into their unconscious using materials and tactile sensations to express their inner feelings (15). The expressive art gives users the opportunity to make and create with control; however, they are faced with the chance that creative perfection may not be attainable, which can be very stressful to an individual with an eating disorder (21). Art therapy also allows users to practice the art of making and using their bodies in ways that machines are now doing for the body.

6.3

These programs are all unique to the development of the body in an individual way for each user and others whom the disorder can affect. The programs all revolve around the healing and well-being of the individual in a comfortable and unique atmosphere. Combining all of these programs in one facility promotes a unique experience centered around the body and its connection to others and to the space around it.

Individual Therapy

Group Therapy/Seminars

Cooking demos

Nutrition seminars

Massage therapy

Creative therapy (art, sewing, pottery)

Fitness and Yoga

Gardening

Cafe

Market

Gallery

Banquet space

Apartment

Offices

Public/Private washroom

Kitchen

Storage

Recycling/waste centre

Reception

Staff lounge

Site Analysis 6.4

A thorough site analysis can greatly inform and impact both the interior design and the exterior site plan of an area . Grasping how the site currently functions and considering what is around it can help create a stronger proposal. The site is studied in many different ways in terms of Function, Frame and Quality. Combining all of these categories together creates a total understanding of an existing area and building. With this understanding the design can begin to meet the needs of the both the direct user and greater community.

Function Demographics, Transportation, Identity, Density

Frame building scale, human scale, Rhythm, Paths and nodes, Landmarks

Quality Image of Place, Connection to place, building treatments, well-being

Criteria for site selection:

1. Adaptive re-use by choosing an already existing building.
2. Site size capable of growth
3. Usable space for an exterior environment
4. Nature within a busy urban neighborhood
5. Accessible by public transportation
6. Opportunity to reach the public with its presence.
7. Simple and little applied beauty to the building
8. Pedestrian access
9. 1 storey volume at street level



Image of the existing building from the South-facing facade.

Based on these criteria stated the site chosen for the proposed wellness centre is the Masonic Temple located at 420 Corydon Avenue.

This building is well positioned on the current site, although it offers little excitement to the area and little interaction to the people passing by. Both the site and the building will benefit from the injection of a new and unique typology that engages both the intended user and the surrounding community in an educational and restorative process.

Once developed, the proposed building will be an estimated 30 000 square feet. The building will focus on manipulating the existing building to create a strong connection to nature from the interior to exterior of the building. This integral connection will help to develop a stronger presence on the corner and develop a stronger connection the surrounding community. It is important to note that while a connection to the surrounding environment is important to this design, the privacy and respect of the users is of greater concern. Therefore buffers will be created to allow the users the privacy that is needed to aid them in their recovery.

As the intention of the centre is to provide a restorative process for the female body, the concept of restorative design is very fitting for the proposal of the site. As with our bodies, society has begun to realize that many recent lifestyle choices have had a devastating impact on the environment such that if continued, it is questionable whether or not the environment can reasonably sustain such impacts. Using a busy urban site provides a great opportunity to explore the restorative design concept and to become a leader in the practice of these methods.

6.4

Masonic Memorial Temple 1969

Our Vision

Freemasonry in Manitoba will be the preeminent fraternal organization committed to improving good men through fellowship, leadership and education.

Our Mission

To teach and perpetuate a fraternal way of life of high moral standards through self-improvement, brotherhood, community involvement and benevolence.

The origins of modern Freemasonry are rooted in the 12th century medieval craft guild associations though traces of ritual and symbols appear to be far more ancient traced to ancient cultures in Greece, Egypt, Israel and Asia Minor.

Modern Freemasonry 800 years ago in its current form, is said to off evolved from the ancient architects and stonemasons who were speculated to have filled early structures with biblical, symbolic and sacred geometric metaphors.

Grand Lodge of Manitoba Website

Year constructed: 1969

Zoning: M1 Manufacturing: light

Existing square footage: 23, 400

Assessed Land Area: 2.5 acres

Property Influences: External Corner, Bus Route, Heavy Traffic, Rail Line

Proposed square footage:

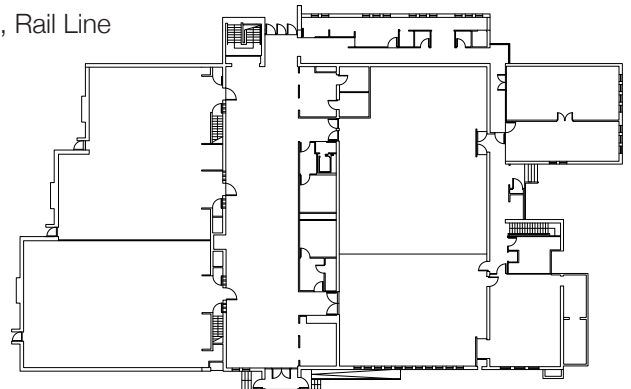
Owner: Grand Lodge Masonry of Manitoba

Architect: INSITE Design

Building construction: Masonry

Mechanical system: Forced Air

Current occupant: Grand Masonry of Manitoba



Original building layout from 1969.

6.4

Existing building photos



Photos of the existing interior of building.



Existing Building Review

Window Patterns: The existing natural light within this building is quite ephemeral and calming throughout the day while creating a very welcoming atmosphere connecting both the front and rear entrance of the building.

The Existing windows possess a strong rhythmic quality however they provide little natural light and make the spaces appear smaller in size. The possibility of opening up the windows to make larger expanses of glass is a great opportunity while still maintaining a sense of privacy within the building for the users.

Retained Building Treatments: The Existing brick exterior and interior walls will be maintained as they are structural and integral to the building.

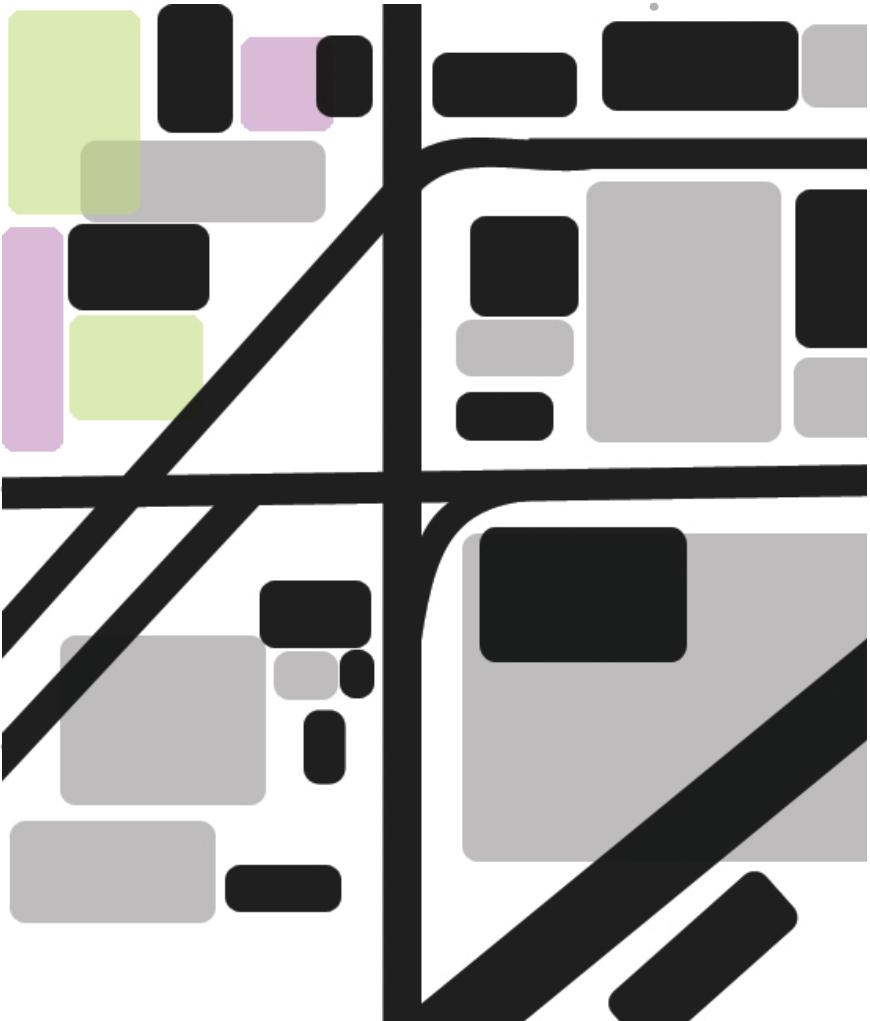
Existing Roof: Has the potential to have can solar panels collecting energy making this building far more energy efficient.

Loading dock and Main Doors: These building elements will all remain as they are in fine working condition and possess a strong quality of history that is carried by this building. Some changes due to universal accessibility will need to be considered and may result in a slight directional change of an entrance but they will remain in the same location.



Land Use

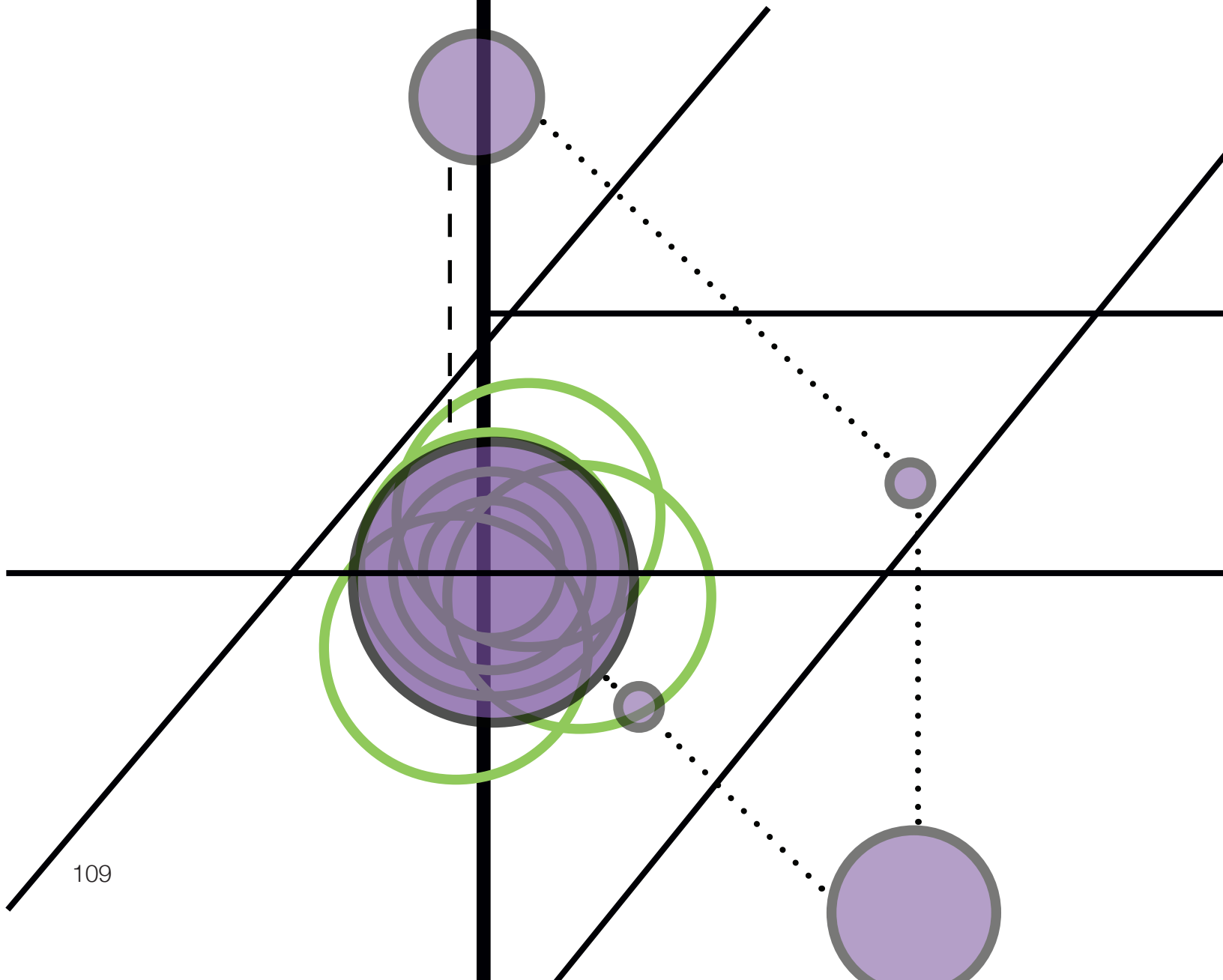
- Parking
- Commercial
- Green Space
- Residential

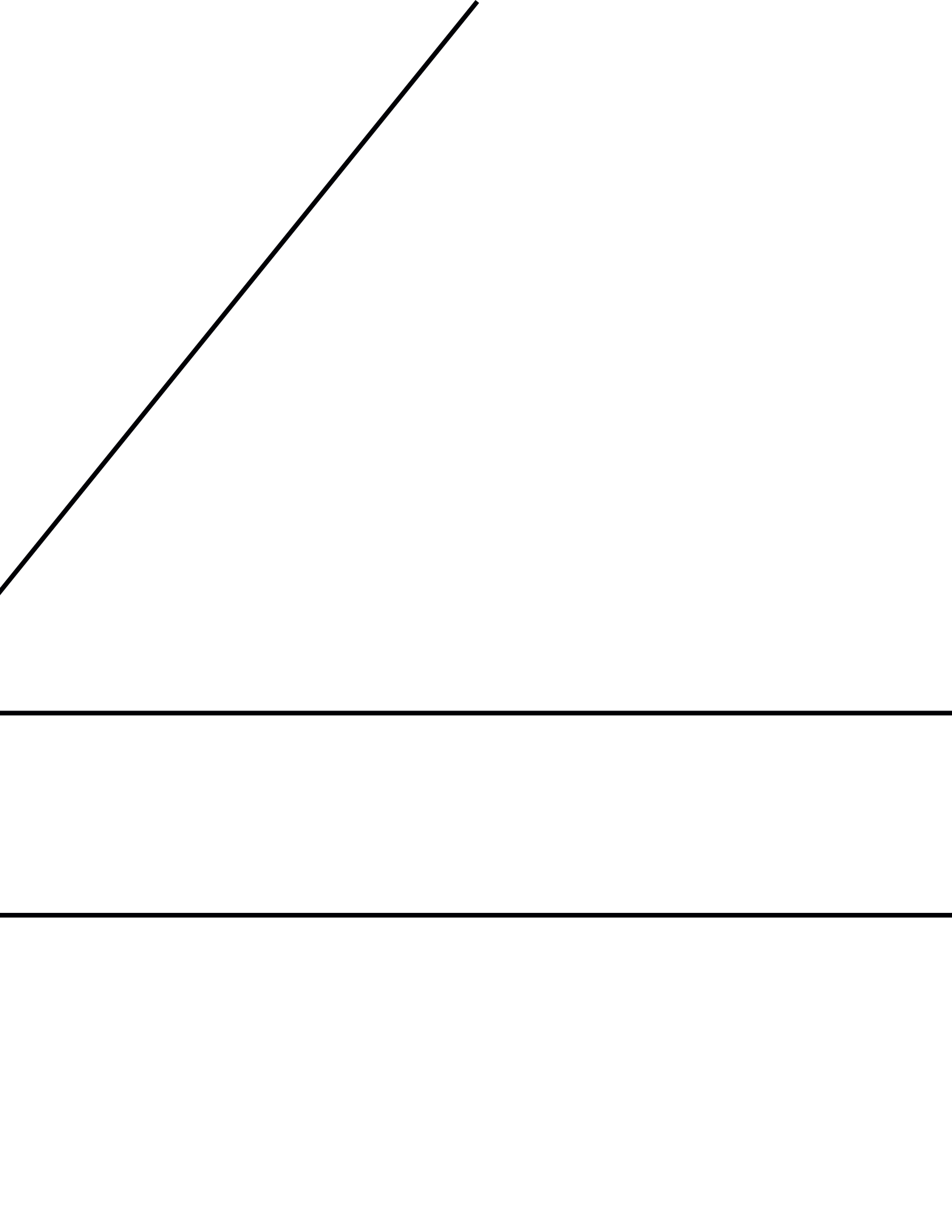


Rhythm+Nodes

Important nodes on this site are Osborne junction, Organza, Rapid transit and the Masonic temple.

The analysis of these nodes create ways of connecting users through out the sight both visually and physically. This offers the opportunity to engage the surrounding community in the development of this wellness centre helping to support one another.





6.4

Human Scale

This site offers very little human connection in contrast to North Osborne. The amount of pedestrian use is limited making the space feel bare. The scale of the building does not reach out to users that are passing by creating a disconnect between both pedestrian and vehicle traffic. Raised up on a platform of landscaping the building holds itself high with little interaction from both cars and people. Using this as study to show the importance of user engagement within a site and interaction on different levels.



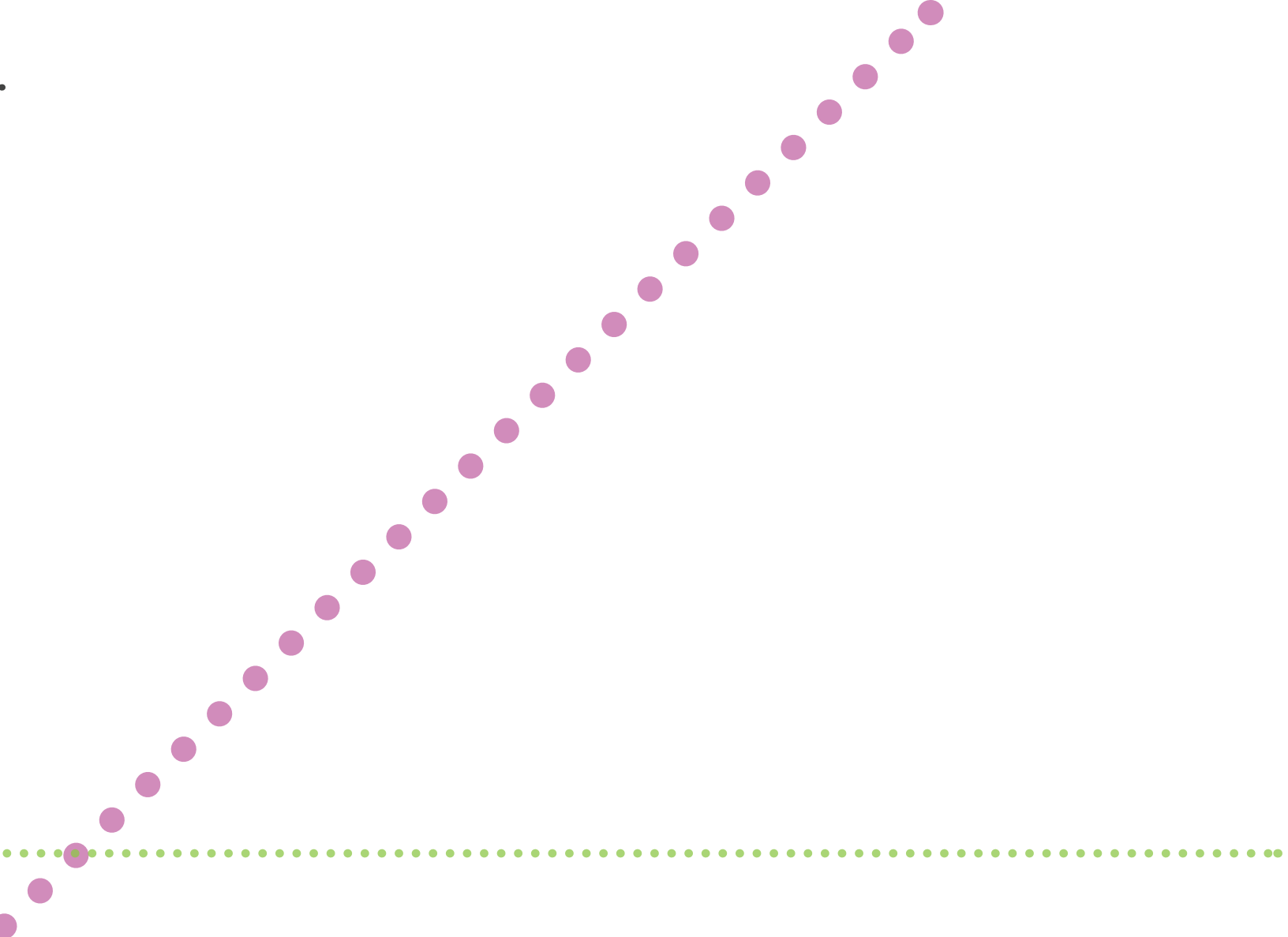


- ● ● Pedestrian
- — — Vehicular
- ● ● Rapid Transport

Circulation

The circulation within this site is very important to the functioning of the wellness centre. The site is located as a hub within the city providing all aspects of transportation leading to the building.

Keeping this in mind the privacy of the users occupying the building is also important. Therefore Using this study as a guide to show where buffer zones are needed within the site to maintain this privacy yet create an experience when approaching this building from the main entrances



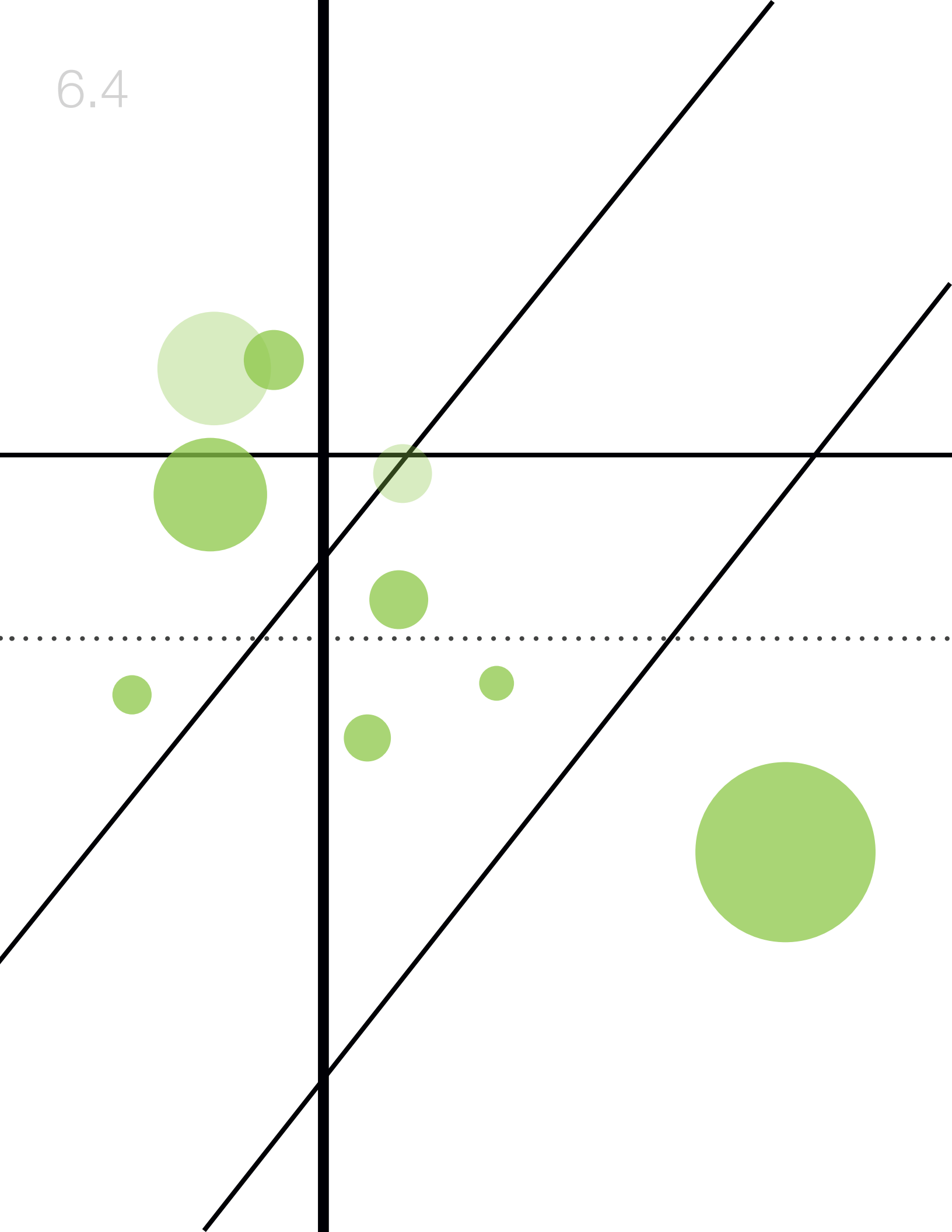
6.4

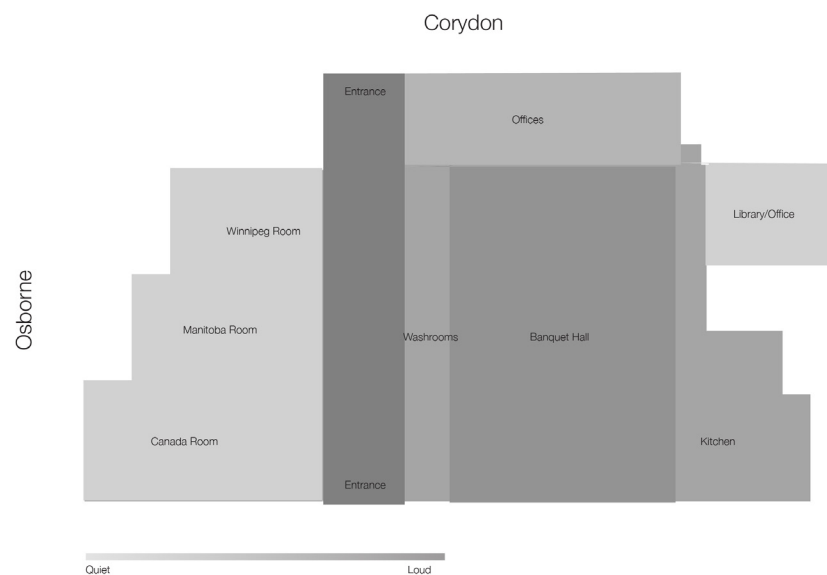
Building Identity



This image uniquely captures the identity of this building and the site it rests on. The image portrays a building that is in need of rejuvenation and the potential that lays within it. The grass that is growing through the cracks is symbolic of the need and desire for nature to be incorporated within this space to encourage its healing and desire for connection.

6.4





Sound Map

This sound map depicts the areas of the site that are more private and those that are more public in relation to the current functions of the existing building. This has a great bearing on which functions will occur in what area of the building when space planning for the new activities.

Building Code 6.5

As Per the National Building Code of Canada 2005

Occupancy Classification: Group A Division 2 & Group E

Building area: 23 400 (without lower level) 31 677 (with lower level) Maximum number of occupants: 460

3.1.17.1. Occupancy Loads: Mercantile 3.7 m², Dining 1.2 m², Space with non-fixed seats 0.75 m², reading or writing room lounges 1.85 m², office 9.3 m², kitchen 9.3 m², shops and vocational training, 9.3 m². Classroom 1.85m².n

3.2.8.4. A building containing an interconnected floor space shall be sprinklered throughout.

3.2.4 A fire alarm system shall be installed in a building that contains an occupant load more than 300.

3.3.1.5. Means of Egress: a minimum of 2 egress doorways located so that one doorway could provide egress from the room or suite as required by article 2.2.1.2 if the other doorway becomes inaccessible to the occupants due to a fire which originates in the room or suite shall be provided for every room and suite.

3.4.1.2. If more than 2 exits are provided from a floor area, exists are permitted to converge in conformance with sentence **3.4.3.1.(2)**. Provided the cumulative capacity of the converging exists does not contribute more than 50% of the total required exit width for the floor area.

3.4.2.3. exits shall be located so that they are visible, their locations are clearly indicated and are accessible at all times.

3.3.1.9. The minimum width of a corridor shall be 1100mm.

3.3.1.11 except as permitted by Article 3.3.1.12 a door that opens into a corridor or other facility providing access to exit from a room not located within a suite shall swing on a vertical axis.

3.3.2.5. The length of travel to an exit door by an aisle shall be not more than 45m. Dead end aisles shall be not more than 6m long.

3.4.6.7. Treads and Risers: steps for stairs must have a run of at least 280mm (11") between

successive steps and a rise between 125-180mm (5-7").

3.4.6.6. Except as required for aisles by article 3.3.2.3. the maximum slope of a ramp shall be 1 in 10 for an exterior ramp.

3.4.2.4 Travel Distance:

if the travel distance from a suite or a room not within a suite is permitted to be measured from an egress door of the suite or room to the nearest exit, provided the suite is separated from the remainder of the floor by a fire separation of the egress door opens onto an exterior passageway, or a public corridor that is separated from the remainder of the floor area.

3.7.2.2. If a single universal toilet room is provided in accordance with the requirements of section 3.8. the total number of persons in the building used to determine the number of water closets to be provided is permitted to be reduced by 10 before applying sentences 6 7 8 12 13 or 14.

1 male accessible washroom

12 female

3.8.1.2. Accessibility

Not less than 50% of the pedestrian entrances of a building shall be barrier free.

Vestibule: should allow movement of wheelchairs between doors and shall provide a distance between 2 doors in a series of not less than 1200 mm plus the width of any door that swings into the space in the path from one door to another.

The width of a barrier-free path of travel shall not be less than 920mm.

Every doorway that is located in a barrier-free path of travel shall have a clear width not less than 800 mm when the door is in open position.

3.8.3.8. At least one water closet or enclosure in a washroom required to be barrier free shall be not less than 1500mm wide by 1500mm deep.

a doorway that has an opening no less than 800mm wide when open.

-Be equipped with grab bars that are mounted horizontally on the side wall closest to the water closet, not extending less than 450mm in both directions from the most forward point of the water closet.

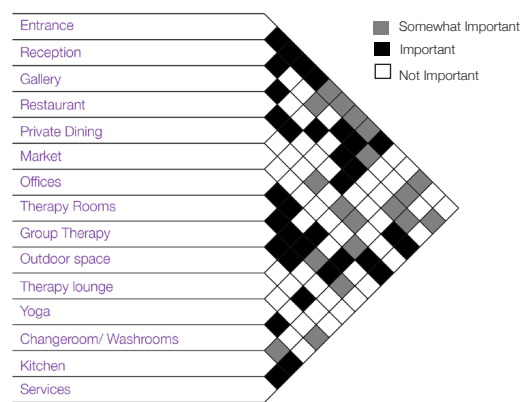
Spatial Requirements 6.6

Space	Size sqf	Qty.
Lobby/Entrance	200	
Reception/Information	350	
Offices+staff room	1350	6
Group Therapy room 1	1200	1
Group Therapy room 2	1000	1
Gallery Space	500	1
Yoga	400	1
Change room/wc	1000	5
Kitchen	1100	
Cafe	1800	
Market	1000	
Storage upstairs	280	
Change rooms/WC	1000	5
Massage Room	200	1
Apartments	800	3

Spatial requirement chart for programming.

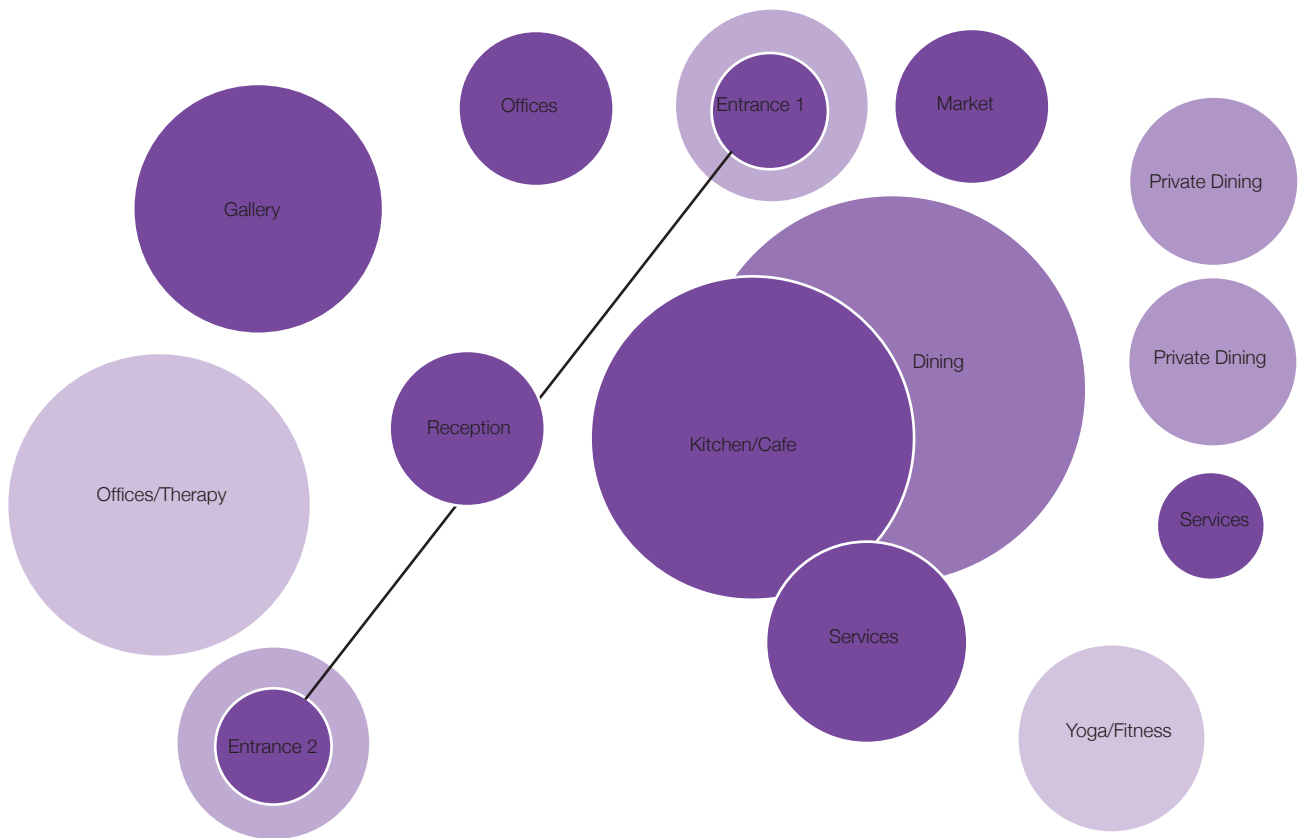
Spatial Adjacencies 6.7

The spatial adjacencies for this design were very important to the overall function of this space and were derived based on upon the idea of concentric circles where the self is at the centre, surrounded by family and then community as a support to encompass the centre. The centre of the circle is where the most private functions would take place, such as therapy and yoga. Areas that would be more public such as group therapies, community learning and the restaurant surround these more private spaces. The individual in recovery becomes surrounded by the support that they need in order to maintain their recovery.



Spatial adjacency matrix to show the spaces in relation to each other

Zoning Diagram 6.8



Zoning diagram that translates the spatial adjacency matrix onto the plan.

Design Proposal

Design Proposal 7.1

The proposed design presented in this chapter is a summation of my understanding of the theoretical framework, investigations, precedents and site analysis.

This design will develop a pleasing aesthetic that engages the sensory system with experiences and qualities of nature. Nature presents a sensory richness and variety in patterns, textures, light and colors that lend themselves very well to the interior of spaces. Here nature will be explored for its beauty, unpredictably and ability to transform and evolve space. The overall aesthetic will be one that is relaxing, nurturing and engaging, inviting users into the space to participate in their own way. Each area has been developed with the users well-being in mind, offering them variety in the way they participate with space and the activities that occur within the space. With the goal of healing from an eating disorder being aimed at nutritional normalization the centre is focused around the café. This allows users to become comfortable with confronting food in their daily life and desensitizes them from their fears. Radiating from the café as the centre point, the general floor plan displays the interconnectedness of the building and its seemingly separate functions. This begins to unify the centre, adopting the same holistic concept to space as explored towards the well-being of the human body.

Brightness. Variability. Natural Rhythms. Patterns. Movement. Ordered Complexity. Curvilinear. Views. Playfulness. Enticement. Balance. Sensorial. Diversity. Refuge. Water. Reflection. Proportion. Contrast. Vegetation. Horizon. Prospect. Harmony. Openness. Planes. Enclosure. Canopy. Windows. Outdoors. Textures. Natural Forms. Exploration. Line. inter-connectedness. Flexibility. Relationships. Directly. Indirectly. Symbolically. Vertical and Horizontal relationships. Views. Evolution. Weaving.

7.1

The form for this design was derived from an overlay of the object created to combine the body, technology and nature in a harmonious way. This overlay converted the spatial patterns found within the object and the unification of its three elements into a form that was transposed within the building. While the main inspiration came from this overlay, the importance of connecting individuals using this facility with the surrounding community also needed to be addressed. Lines were drawn from each contributing area around this building to generate insertions of the community into the building through views, entrance placement, nature and main pathways. This approach created the overall movement of the space and its circulating patterns.

The integration of nature within interior spaces built up and detailed the general framework of the wellness centre. This integration was based on evoking qualities of nature derived from both the dimensions and attributes of biophilic design.

The biophilic attributes, which include direct, indirect and symbolic qualities of nature, created the three ways that nature would be used within this space:

- Direct- flowers, trees, water fountains, plants
- Indirect- Views and vistas,
- Symbolic- pictures, images of nature, materials, forms

The biophilic attributes elaborated from these three dimensions to create a more detailed space that began to deeply root the design in nature.

Design Considerations and Strategies: 7.2

(Biophilic attributes)

Sensory Richness, although one of the main biophilic attributes, is truly derived when all the attributes come together integrating, color, light, texture, pattern and movement to create a rich design.

Variation on themes: Nature is a theme all on its own and has many different patterns within its systems. This centre uses patterns from nature through texture, rhythm and balance. The continuity of these patterns helps to create a harmonious and unified space from one area to another. These themes have been explored through material choices throughout the centre and how a change in material links or separates certain functions.

Variation not only happens within the materials of the building but the space was designed to offer users opportunity for choice and variety. Not all individuals heal in the same manor therefore it was important to provide spaces that allowed users to participate in their own way. Whether it is in therapy sessions, seating arrangements or other activities within the centre variety is offered in many different forms. While eating is a main focus in the healing of an eating disorder seating in the restaurant had be designed for unique experiences. Some individuals would rather eat alone and some would rather eat in a group. A variety of options have been provided for the user in order to facilitate this independence and choice for the user.

Serendipity: Unexpected occurrences happen within this design to create a unique journey and a sense of unpredictably in space. Walls are extended to maintain a sense of the unknown until the users gets closer to a space. Pathways are also used in this way to lead the user into different areas of the facility allowing the movement through the space to become a journey. This mystery enhances the users curiosity and encourages them to interact more fully with their surrounding environment and explore the space.

Motion: Motion is used within this interior as a main element upon entry into the space. A large fountain seen from both entrances guides the users into the space and leads them to the reception area. Placing the fountain within the centre of the space also provides a calming sound that can radiate into other spaces of the centre. This fountain becomes the grounding point of the design and creates a focus from which all the centre's functions radiate. The fountain engages users' senses encouraging them to explore the space around them.

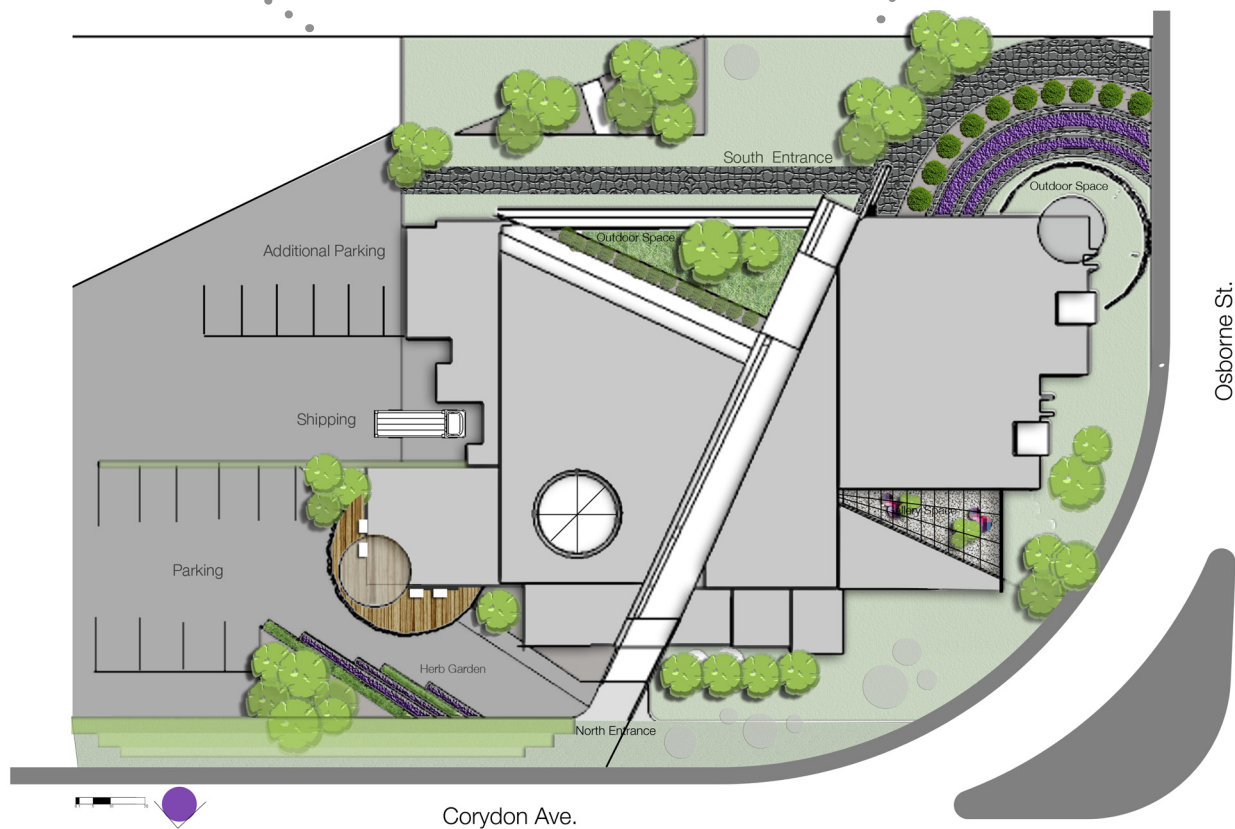
Resilience: The design of this centre focuses on using nature to shelter and protect both the building and the privacy of the users inside. Hedges and large trees provide shade to the building using less energy to heat and cool. The use of large windows and sky-lights provides the building with ample natural lighting giving the ability to use less artificial lighting in the main areas. Grey water systems and solar paneling are also integrated into the buildings system to help the building function more independently.

Sense of Freeness (Open Concept): It is the preference of this design to be an open concept layout, though certain areas require privacy for the well-being of the users. The North side of the building, being the more public, has been opened to allow for a sense of freeness, allowing functions to blend into one another. The use of natural spaces injected into the building also enhances the perceived sense of openness. Although some boundaries are required for safety reasons users can still enjoy the vast open sky and outdoors from within the interior space.

Prospect and Refuge: The use of both prospect and refuge within one space can express movement and closure all within a single experience. The design of this space offers visual access to many natural elements that blurs the exterior of the building from its interior. This blurring is achieved through the injection of natural outdoors spaces directly into what would be considered the interior of the existing building shell. While certain spaces open up to the exterior the contrast of creating refuge still occurs within this space. Pathways funnel into other spaces leading users through what they believe to be a dead end but which are another opportunities for exploration. Graduated ceiling planes are also used as a tool to create this desired prospect refuge effect.

All of these design elements create an inter-connectedness intended to be experienced together within this design project.

Design Drawings 7.3



Site Plan

The existing building was chosen for its location in an urban city and for its seeming lack of presence on a very busy corner. The interior of the building was in a very fragmented state, just as it is with the body in contemporary society. Therefore it was the main intent of this proposal to break the interior barriers of the building to redevelop a more unified interior space. Unifying the inside was a main goal, however unifying the exterior with the interior and breaking these boundaries was also crucial to the design. The eliminations of these boundaries explored throughout the design began with the initial form development investigation that inspired the overall plan of the design.

7.3



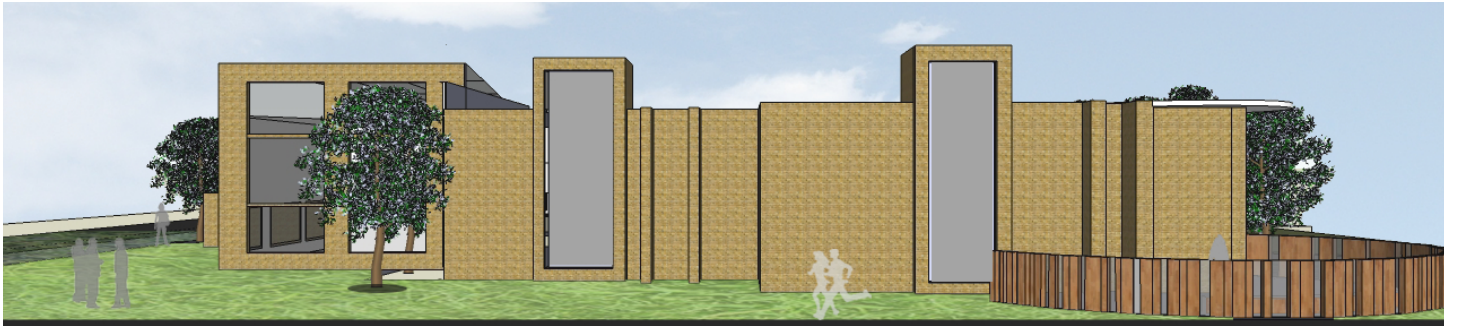
South Facing Perspective



North Facing Perspective



West Facing Perspective



East Facing Perspective



South Entrance



7.3

Biophilic Thresholds Main Floor

Biophilic thresholds are the points of interest within this design that exhibits a connection to nature. These connections are based on the biophilic attributes that are direct, indirect and symbolic elements. Each point displays a connection to nature that when experienced together provides a rich experience for the users. The following diagram displays the individual attributes located within the centre.

- Direct
- In-Direct
- Symbolic

- Direct
- In-Direct
- Symbolic

Main Floor Plan N



0 1 5 10 20



A

B

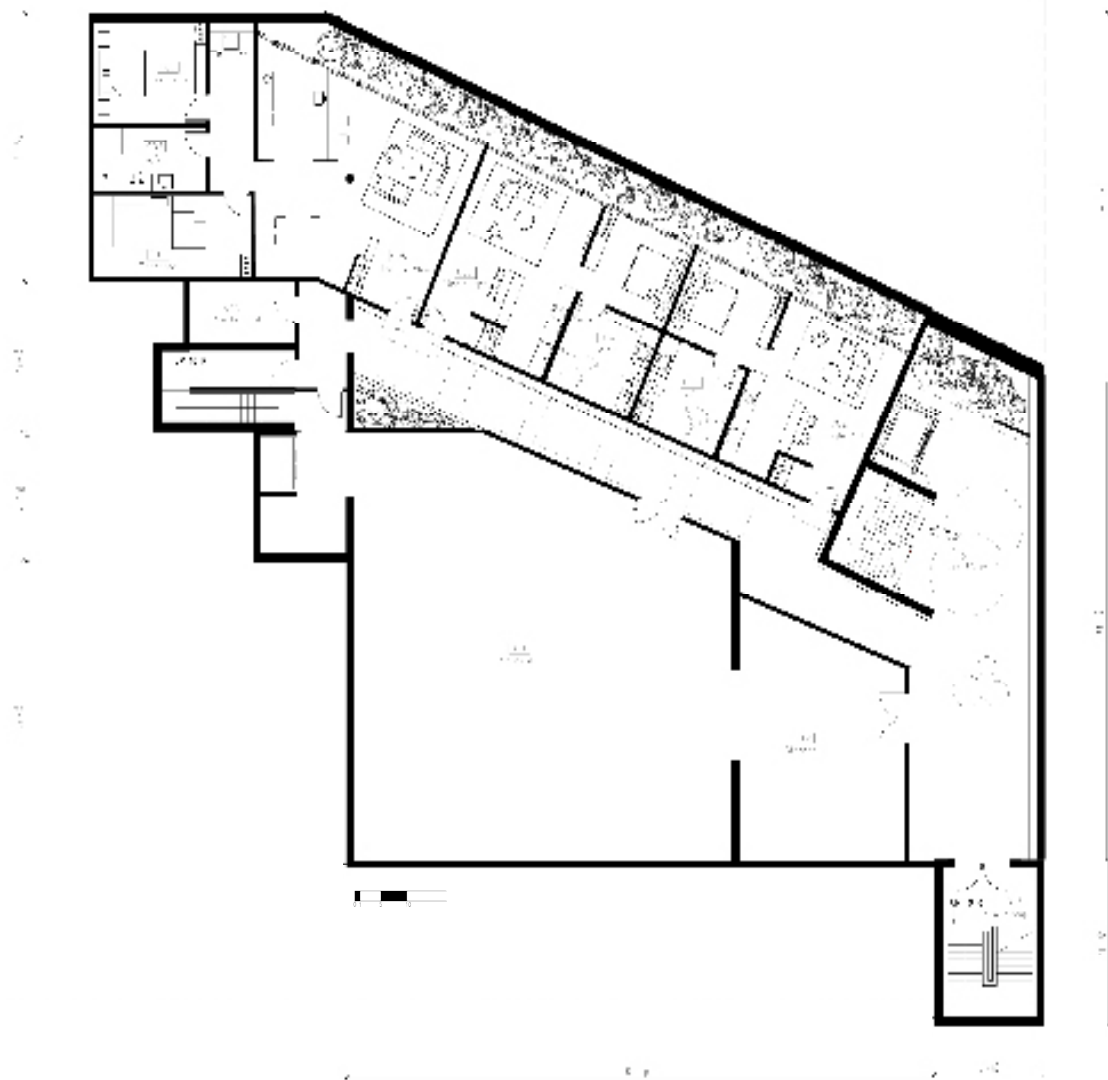
C

D

E

F

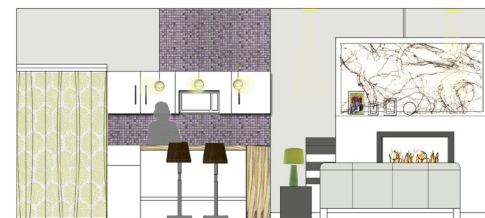
G





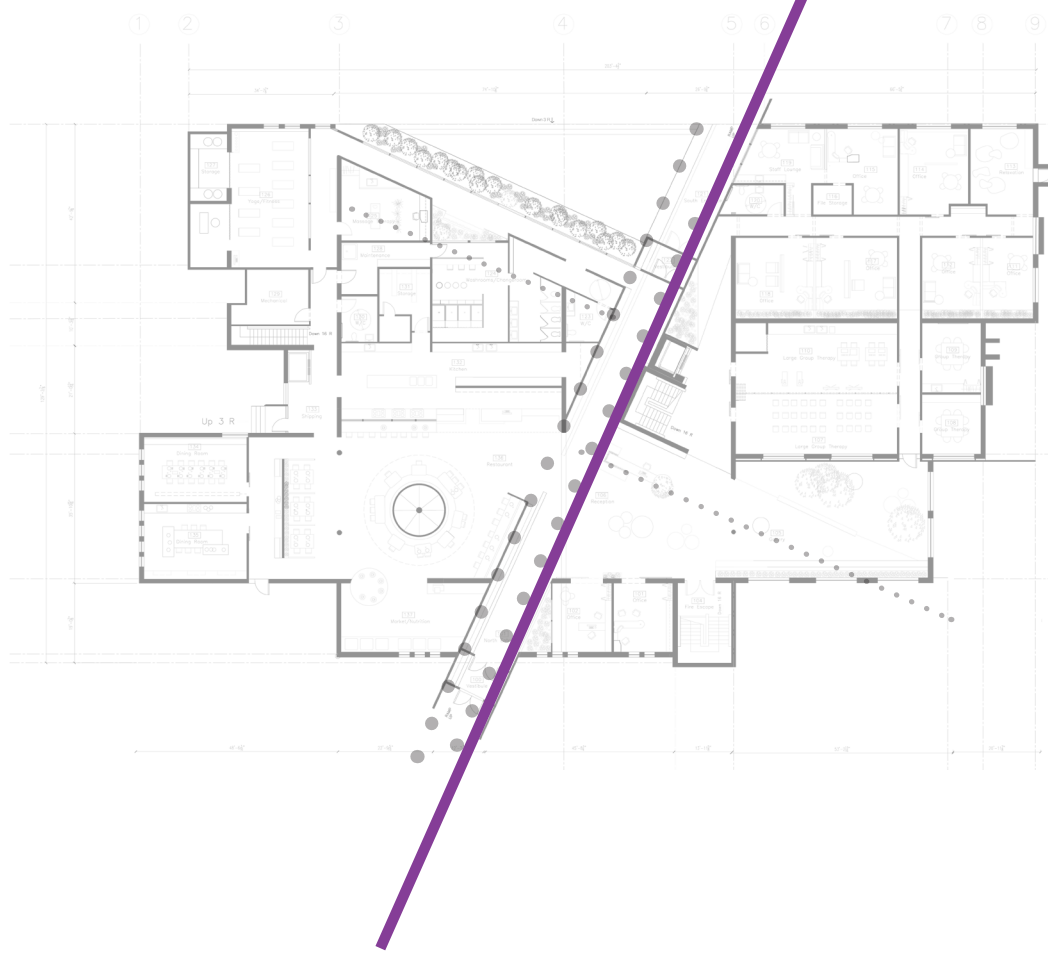
Just as shown on the main floor plan, the biophilic attributes are displayed on this plan for the lower level. They show the experiences that users will have while they explore this facility and engage with many elements of nature on all levels.

- Direct
- In-Direct
- Symbolic

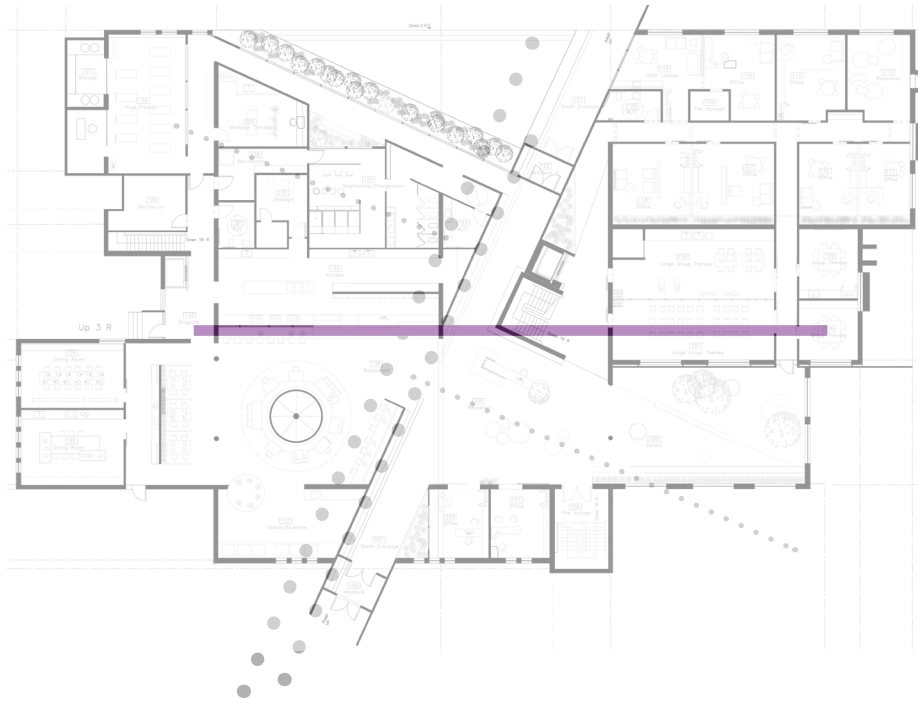


Interior Elevation

Single Apartment Perspective



Section AA



Section BB



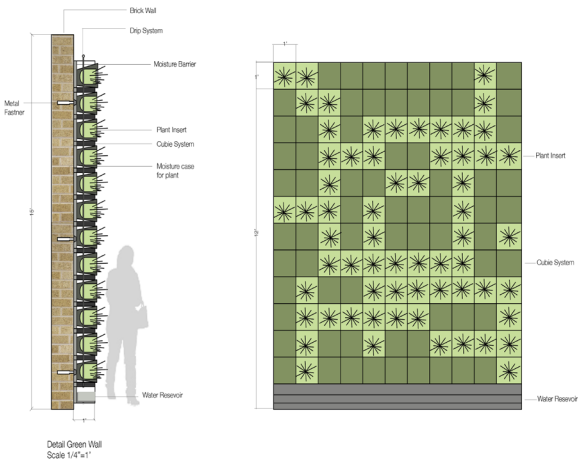
View From Main Entrance



View from Reception Into Gallery



View from Gallery to Reception



Detail of Green Wall



View Into Cafe and Market



1: Restaurant Elevation



2: Market Elevation



View In Private Dining Room



3: Dining Elevation

View of Hallway Towards Yoga+ Fitness





View into Yoga Room



4: Yoga Elevation



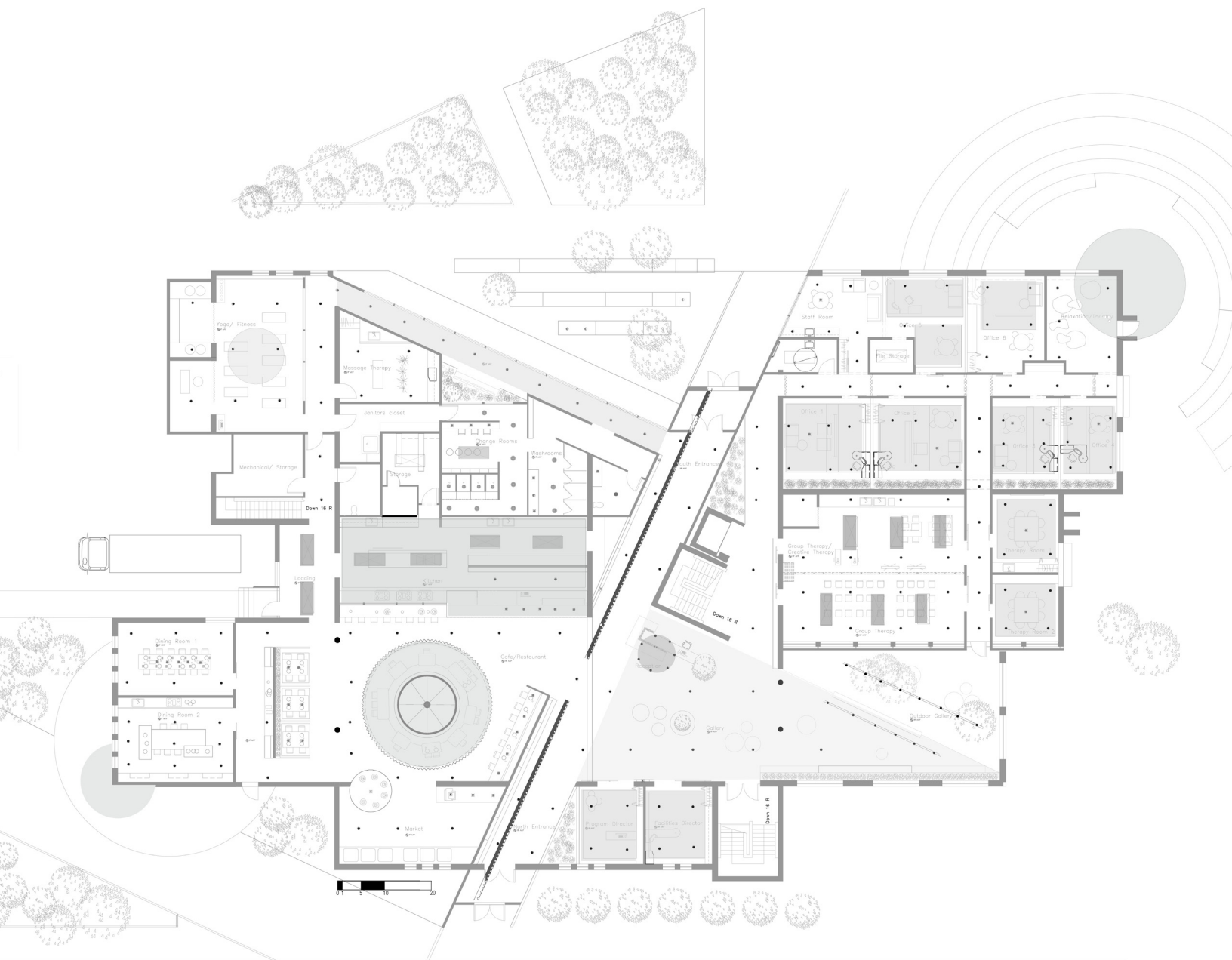
5: Therapy Lounge Elevation



6: Office Elevation



7: Office Hallway Elevation



The reflected ceiling plan for the main floor of this space depicts both the lighting and ceiling features of the space. The lighting remains consistent with 6" recessed pot lights acting as the general lighting. Each individual area is wired to have task lighting and decorative feature lighting. The main path linking the North and South entrance have LED rope lighting illuminating the connection between each entrance. All of the feature and task lighting were designed to bring the high ceilings down to a more human level, by integrating lighting at all levels. This creates a more dynamic and rich experience for the users of this space.

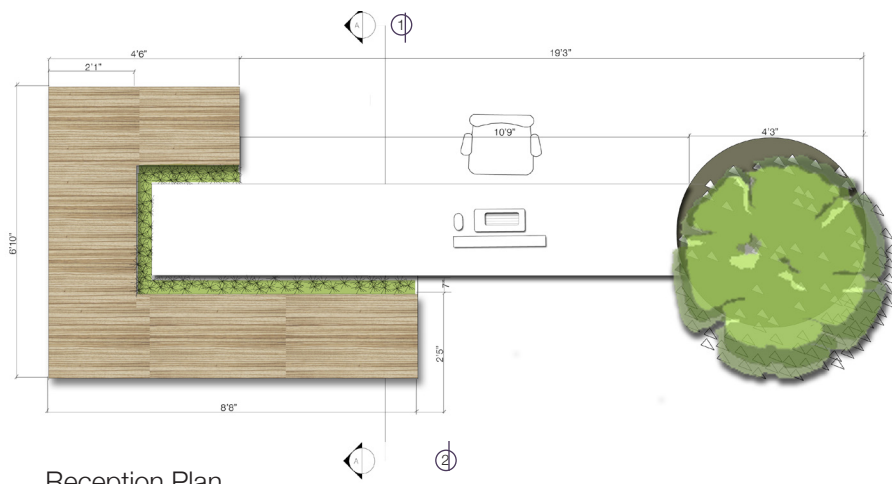
Main Floor Reflected Ceiling Plan

The reflected ceiling plan for the lower level shares many of the same attributes as the main level however varies upon entering the individual units. Users are greeted with a custom light fixture upon exiting the elevator that grounds that areas as the entrance. The hallway has recessed lighting in the ceiling planes that allow them to appear floating. The individual units are wired with pot lights and task lighting that creates a more comfortable atmosphere within the apartment. The feature fixtures are all unique and combine elements of both nature and technology to unify the design concept.



Lower Level Reflected Ceiling Plan

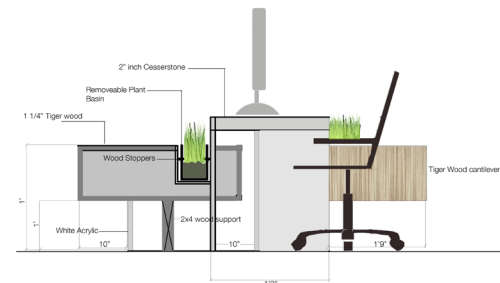




Reception Plan



1: Reception Elevation



Reception: Section AA

The reception desk was custom designed for this wellness centre as an integration of both nature and technology. With the desk being a focal point upon entrance into this space it introduces users to the concept and understanding of the balance that needs to exist between both nature and technology. The combination and overlap of natural wood and white acrylic expresses this idea creating a unified and harmonious design.



2: Reception Elevation

Conclusion 8.1

As technology advances, the growing disconnect between people and nature continues to be of great concern. Therefore, it is crucial to develop interior spaces that facilitate a strong connection with nature, allowing people to explore the sensory richness that nature provides. The concern for this separation from nature greatly limits people's physical engagement with space and the connection the body has to its surrounding environment resulting from this dis-engagement.

The purpose of this project was to find a variety of methods to balance the technological world with the natural world in order to provide an interior design that facilitates the well-being of an individual in recovery from an eating disorder. As these individuals already possess an existing level of disconnect with their bodies, making a stronger connection between nature and the body will help them view their body in a positive way. While both nature and technology are important to our society today, what was learnt through this process was that the harmonization of both elements is the key to a successful design. This harmonization was adopted through understanding the holistic view of the body and how it enters a healthy state when all parts are functioning together. This concept was valuable when applied to space and spatial experiences while integrating all elements of the research for this design project that were seemingly contradictory such as technology and nature.

Technology was used in a way that supported nature and made it more accessible to the interior of this design. This was achieved by using elements such as a glass roof in the gallery space, expanding the amount of glass, mechanisms that allowed water to flow down the walls as a feature fountain in the centre of the space and technologies that allow gardens to grow vertically on the walls within the existing walls of the space. All of these elements that were explored were ways of bringing people closer to nature using technology.

While nature is most often experienced outside, this design welcomes nature into the interior by removing

8.1

the definition of boundaries between what is inside and out. This is what biophilic design attempts to do; blur the boundary between exterior and interior by integrating nature within space. The design of this wellness centre facilitates these experiences that begin to connect the recovered body with nature, family, community and the self, which are integral aspects in the maintenance of recovery from an eating disorder.

Interior design is a very intimate area of design and this process taught me the great importance that sensory design plays within the field of interior design. Sensory design is an integral part of design and is truly understood through the exploration of nature, therefore making nature an integral part of design. This research aims to provide a framework of how designers can begin to use nature within interior spaces to enhance the well-being of users. The framework being the biophilic attributes such as sensory richness, variation, serendipity, motion, resilience, sense of freeness and prospect and refuge. Designers can take this information and begin to introduce these attributes of biophilic design to other situations and projects of all scales. These attributes were explored to sustain this design project provided a valuable tool used to outline a framework and create design objectives that were implemented into the design of this wellness centre. Implementing these attributes enabled the design to achieve the essence of nature within an interior space.

As this is a project focused on nature it was very important to choose materials not only based on their sensory qualities but on their sustainability and impacts on the environment. All the materials within this space are environmentally friendly and have little impacts on the environment during their production or removal.

While sustainability focuses on sustaining the environment this project focused on incorporating restorative design practices. These practices focus on not only the consideration for the future but for restoring what has already been damaged. Some of these practices include grey water systems, solar paneling and automated lighting which were explored however; a deeper study of how they are integrated through a multi-disciplinary approach would have been beneficial.

8.1

While interior design cannot claim to heal and cure eating disorders, a centre of this nature can begin to facilitate the well-being of users through spatial experiences. These spatial experiences lend the body the opportunity to rediscover the tranquil and unique experiences that nature can offer in space. Interior design has the opportunity to contribute and provide these unique experiences for people on an intimate level allowing them to develop a stronger connection with space and in turn a stronger connection with the self.

Part 9

Bibliography

Agras, Stewart W. *Eating Disorders: Management of Obesity, Bulimia, and Anorexia Nervosa*. Pergamon Press. New York, 1987.

American Psychiatric Association. *Diagnostic and statistical manual of mental disorders*. DSM-IV TR 2000. Washington, DC.

Ackerman, Diane. *A Natural History of The Senses*. First Vantage Books. New York. 1990.

Bachelard, Gaston. *The Poetics of Reverie*. Beacon Press, Boston. 1971. Translated by Daniel Russell.

Barnaby, Barratt.B. *The Emergence of Somatic Psychology and Bodymind Therapy*. Palgrave McMillian, England. 2010.

Benyus, Janine. *Biomimicry : innovation inspired by nature*. New York, Perennial, 2002.

Berkebile, Bob. Interview by Robert Gilman. *Designing a Sustainable Future*. In Context 1993. Web August 2010.

Bordo, Susan. *Unbearable Weight*. University of California Press. Berkely, Los Angeles, London, 1993.

Borgmann, Albert. *Crossing the Postmodern Divide*. University of Chicago Press, Chicago, 1992.

---Technology and the character of Contemporary Life:. *A philosophical Inquiry*. The University of Chicago Press, Chicago, London, 1987.

Black, Paula. *The Beauty Industry, Gender, Culture, Pleasure*. Routledge, London and New York 2004.

Bloomer Kent C, Charles W. Moore. *Body, Memory and Architecture*. Yale University Press, New Haven, 1977.

Bratton, Benjamin H. *Iphone City*. *Architectural Design*. Vol.79. no.4, p 92-97, 2009.

Brooke, Stephanie L. *The Creative Therapies and Eating Disorders*. Charles C. Thomas Publishers, Springfield Illinois. 2006.

Campion, Margaret Reid. *Hydrotherapy in Pediatrics*. Second Edition. ButterworthHeinemann. Oxford, 1991.

Ciliska, Donna, Kathryn Weaver, Judith Wuest. *Understanding Women's Journey of Recovering From Anorexia Nervosa*.

Qualitative Health Research vol.15, pp 188-205. 2005

Cole, Ellen, Jessica Henderson Daniel. *Featuring Females: Feminist Analyses of Media*. American Psychological Association. Washington DC, 2005.

Cresswell, Tim. *Place a short introduction*. Blackwell Publishing. Australia, 2004.

Csordas, Thomas. *Embodiment and Experience: The existential ground of culture and self*. Cambridge University press, Cambridge, Great Britain, 1994.

Daubenmier, Jennifer. *The Relationship of Yoga, Body Awareness and Body Responsiveness to Self-Objectification and Disordered Eating*. *Psychology of Women Quarterly* vol. 29 p 207-219. Blackwell publishing, 2005. Accessed May, 10, 2010.

Davis, Kathy. *Reshaping the Female Body: The dilemma of Cosmetic Surgery*. Routledge, New York and London, 1995.

De Vierville, Paul. *Spa Industry culture and Evolution, time temperature, touch, truth*. *Massage and Bodywork Magazine*, August/September issue, 2003: n.page Web December 28, 2009.

Dryer, Richard. "Monroe and Sexuality" in *Heavenly Bodies: Film Stars and society*, 2nd Ed. Routledge, New York, 2004. Chapter 1, pp 17-63.

Entwistle, Joanne, Elizabeth Wilson. *Body Dressing*. Berg Editorial Offices, Oxford, New York, 2001.

Etcoff, Nancy, et al. *The Real Truth About Beauty: A Global Report*. Dove Unilever beauty brand, September 2004.

Featherstone, Mike, Roger Burrow. *Cyberspace Cyberbodies Cyberpunk: Cultures of technological Embodiment*.

---*Consumer Cultures and Postmodernism*. SAGE Publications, London, Newbury park, New Delhi, 1991.

Feher, Michael, Ramona Naddaff, Nadia Tazi. *Fragments for a History of the Human Body Part two*. MIT Press, 1989.

Fernandez, Maria. *Illuminating Embodiment*. *Architectural Design*. Vol.77, no 4, p 78-87, 2007.

Field, Tiffany. *Touch Therapy*. Churchill Livingstone, 2000.

--- Sybil Hart, Maria Hernandez-Reif, Graceila Nearing. *Anorexia Nervosa Symptoms are Reduced by Massage Therapy*. *Eating disorders: the Journal of Treatment and Prevention*. Vol 17-# 1 Brunner Routledge. 2001

Frisby, David. *Simmel on Culture*. Sage Publication. London, Thousand Oaks, New Delhi, 1997.

Fortunati, Leopoldina, James E. Katz, Raimonda Riccini. *Mediating the Human Body Technology communication and fashion*. Lawrence Erlbaum Associates, publishers. New Jersey, London. 2003.

Gatens, Moira. *Imaginary Bodies: Ethics, Power and Corporeality*. Routledge, London and New York, 1996.

Goffman, Irving. *The Presentation of Self in Everyday Life*. DoubleDay Anchor Books, Garden City, New York, 1959.

Hart, Sybil, Tiffany Field, Maria Hernandez-Reif, Graciela Nearing, Seana Shaw, Saul Schanberg, Cynthia Kuhun. *Anorexia Nervosa Symptoms are reduced by Massage Therapy*. *Eatings Disorders The Journal of Treatment and Prevention*. Vol 17, - Number 1. P. 289-299. Web May 2010.

Heinberg, Leslie J, Kevin, J Thompson. *The Media's Influence on Body Image Disturbance and Eating Disorders: We've Reviled them, Now Can We Rehabilitate Them*. *Journal of Social Issues*, Vol.55 No 2 1999, pp, 339-353. Web. 24 May 2010.

Canadian Mental Health Association. www.cmha.ca 2011, Accessed on April 2010.

Kellert, Stephen, Judith H. Heerwagen, Martin L. Mador. *Biophilic Design: The Theory, science and practice of Bringing Buildings to Life*. John Wiley and Sons Inc. New Jersey, 2008.

Kopelman, Loretta, John Moskop. *The Holistic Health Movement: A Survey and Critique*. *The Journal of Medicine and Philosophy*. Vol. 6, pp 209-235. Web. October 2010.

Leder, Drew. *The Absent Body*. University of Chicago Press, Chicago and London, 1990.

Malkin, Stacy. *Not Just a Pretty Face: The ugly side of the beauty industry*. New Society Publishers, Gabriola Island, BC, 2007.

Martin, Courtney E. Perfect girls, starving daughters: the frightening new normalcy of hating your body. Free Press, New York, New York. 2007.

McManners, Deborah. The Ultimate Holistic Health Book. Piatkus, London. 2004.

Merleau-Ponty, Maurice. Phenomenology of Perception. Trans. Colin Smith. Routledge & Kegan Paul. New York, 1962.

---Sense and Non-Sense. Northwestern University Press, USA, 1964.

McLuhan, Marshall. Understanding Media: The Extensions of man. Gingko Press, Corte Madera, CA, 2003.

Mugerauer, Robert, David Seamon. Dwelling, Place and Environment. Columbia University Press, New York, Oxford. 1989.

Negrin, Llewellyn. Appearance and Identity: Fashioning the Body in Post modernity. Palgrave Macmillan, New York, NY, 2008.

Orbach, Susie. Bodies. Picador New York, NY, 2009.

---Fat is a Feminist Issue. Arrow Books, London and Great Britain, 2006.

Pallasmaa, Juhani. The Eyes of The Skin: Architecture and the Senses. John Wiley & Sons, West Sussex, England, 2005.

---The Thinking Hand existential and embodied wisdom in Architecture. AD Primers, John Wiley & sons. West Sussex, United Kingdom. 2009.

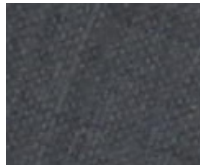
Papadopoulos, Despina. Wearable Technologies, Portable Architectures and the Vicissitudes of the Space Between. Architectural Design. Vol.77, no 4, p 62-67, 2007.

Rodaway, Paul. Sensuous Geographies body, sense and place. Routledge, London and New York, 1994.

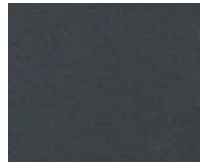
Saito, Yuriko. Everyday Aesthetics. Oxford University Press inc. New York, 2007.

- Scully, Vincent. *Architecture The Natural and The Manmade*. Harvil, Hammersmith, London. 1991.
- Skerritt, Jen. *Starved for Help*. Winnipeg Free Press. Friday, May 14, 2010.
- Spitz, Rene A. *A Genetic Field Theory of Ego Formation*. International Universities Press, Inc, New York, 1959.
- Tatano Beck, Cheryl, Jeanne Watson Driscoll. *Postpartum Mood and Anxiety Disorders*. Jones and Bartlett publishers. Ontario. 2006.
- Trimmer, Joseph E. *The Essentials of MLA Style*. Houghton Mifflin Company. Boston, New York. 1996.
- Wallin, Ulf, Per Kronovall, Marie-Lousie Majewski. *Body Awareness Therapy in Teenage Anorexia Nervosa: Outcome after 2 Years*. *European Eating Disorder Review*. John Wiley and Sons. Vol. 8 Issue 1, pp 19-30. 2000. Web October 2010.
- Warwick, Alexandra, Dani Cavallaro. *Fashioning the Frame: boundaries, dress, and the body*. Berg Editorial Offices, Washington Square, New York, 1998.
- Weiss, Gail. *Body Images: Embodiment as Intercorporeality*. Routledge, London. 1999.
- Weitz, Rose. *The Politics of Women's Bodies, Sexuality, Appearance, and Behavior*. Oxford University Press.
- Wegenstein, Bernadette. *Getting Under the Skin The body and Media Theory*. MIT Press, Cambridge, Massachusetts, London England. 2006
- Wolf, Naomi. *The Beauty Myth*. William Morrow and Company INC, 1991.
- Womens Health Clinic. *Womens Health Clinic*, March 1, 2011. Accessed on October 2010.
- Zerbe, Kathryn.J. *The Body Betrayed: Women, Eating disorders and Treatment*. American Psychiatric Press. Washington DC. 1993.

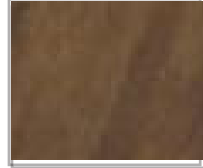
[illegible]



F1



F2

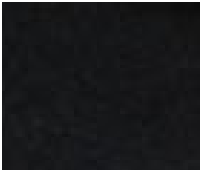


F3

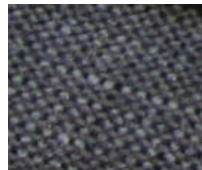
F4



U1



U2



U3



U4



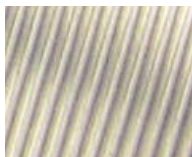
U5



SS1



SS2



L1



P1



P2



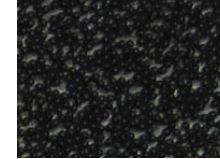
P3



P4



WC1



WC2



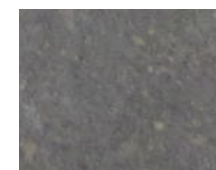
WC3



WC4



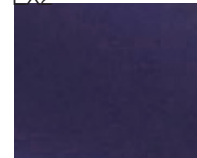
EX1



EX2



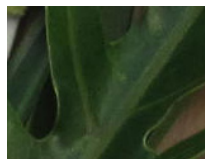
GD1



GD2



GD3



Sustainability Review

All of the materials used within the design of this wellness centre have been chosen based on their sensory qualities and ability to engage with the users. With this concept in mind another consideration for the materials choices was their degree of sustainability and impact on the environment.

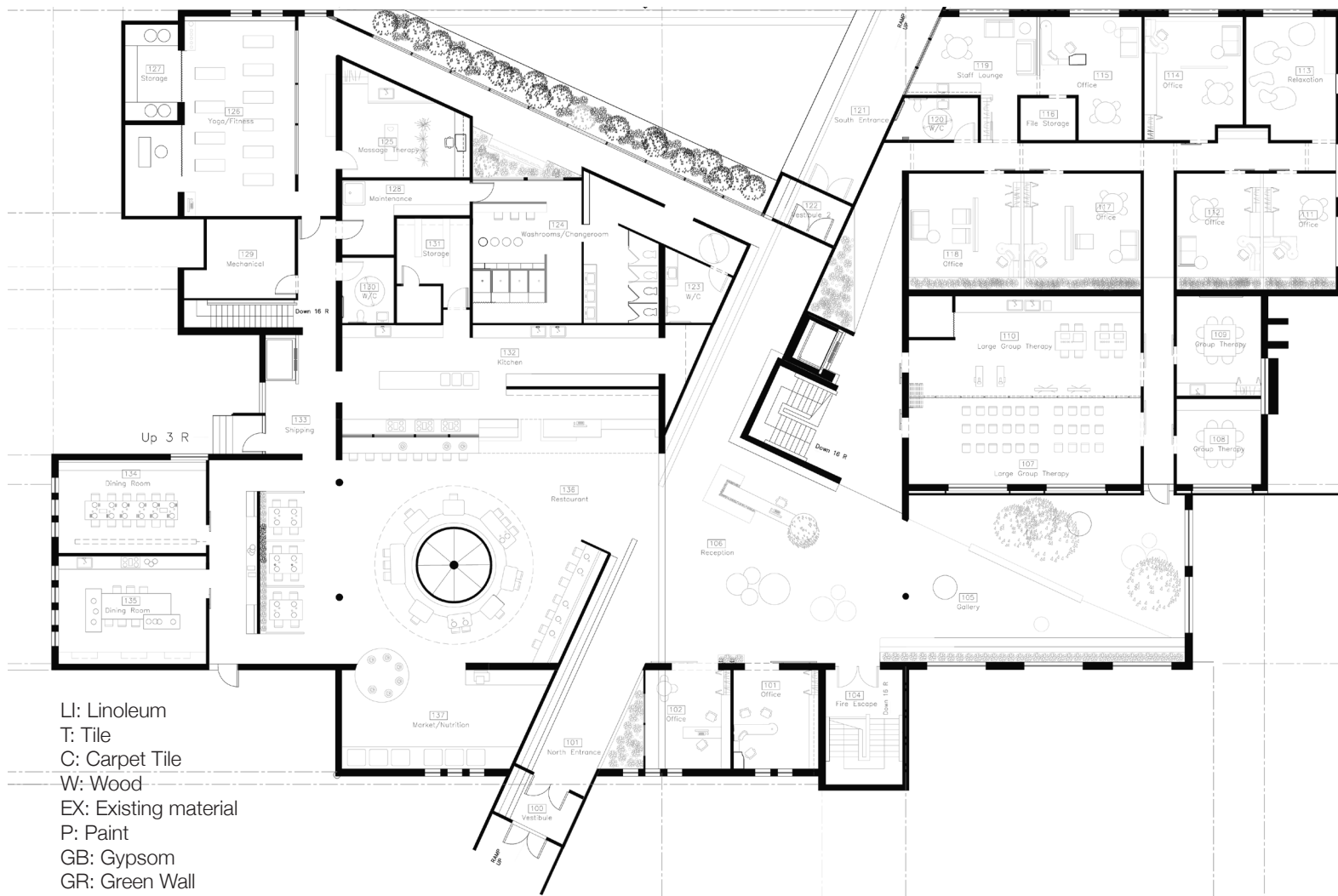
The materials all chosen display different levels of sustainability not only in terms of their impact on the environment within a space but how they are produced and recycled during their life-cycle. This concept can be considered in the many ways that the producers of these materials run their operation and how their building functions. While certain materials are excellent in their production they may still need stronger consideration in how they are recycled and the waste that is produced during their installation and removal. This deeper understanding for the general life-cycle of each material gave a much stronger appreciation for the beauty of certain materials.

Material Schedule 7.3

	Material	Manufacturer	Pattern Name	Code	Colour
F1	Tile	Ames Bros Distributing	Mako	CASLGVMKR2	Grey
F2	Linoleum Flooring	Forbo	Walton		173
F3	Bamboo Flooring	Calibamboo	antique Java		java
F4	Carpet tile	Flor	Ripple		Grey
WC1	Stone Tile	Artistic Tile	Riverstone	medium pebble	Clear
WC2	Wallpaper	Commercial wall Coverings		GSET-100	Black
SS1	Solid surface	Dupont	Zodiaq		cloud white
SS2	Solid surface	Kieri	Zen modern		
GD1	Glass divider	Gold ray	dove down		white
GD2	Glass divider	Gold ray	Etch		purple
GD3	Glass divider	3form	sonoma nest		brown
L1	Laminate accent	Rigidized metals	6.SL	T304 #4	Stainless steel
F4	Mosaic tile	Ceratec	Harmony bamboo	SHL-237	Purple
U1	Fabric	Maharam	Ledger	463770	012 grape
U2	Fabric	Sunpan	charcoal		#02
U3	Fabric	Sunpan	Grey		#1
U4	Fabric	Knoll	Visage	WW320-6	Light grey
U5	Fabric	Maharam	Kvadrat	zuzunaga	Multi
P1	Paint	Benjamin Moore		2134-70	Genesis white
P2	Paint	Benjamin Moore		2134-60	whitestone
P3	Paint	Benjamin Moore		2069-30	darkest grape
P4	Paint	Benjamin Moore		2025-30	new lime
EX1	Brick				
EX2	Cement				

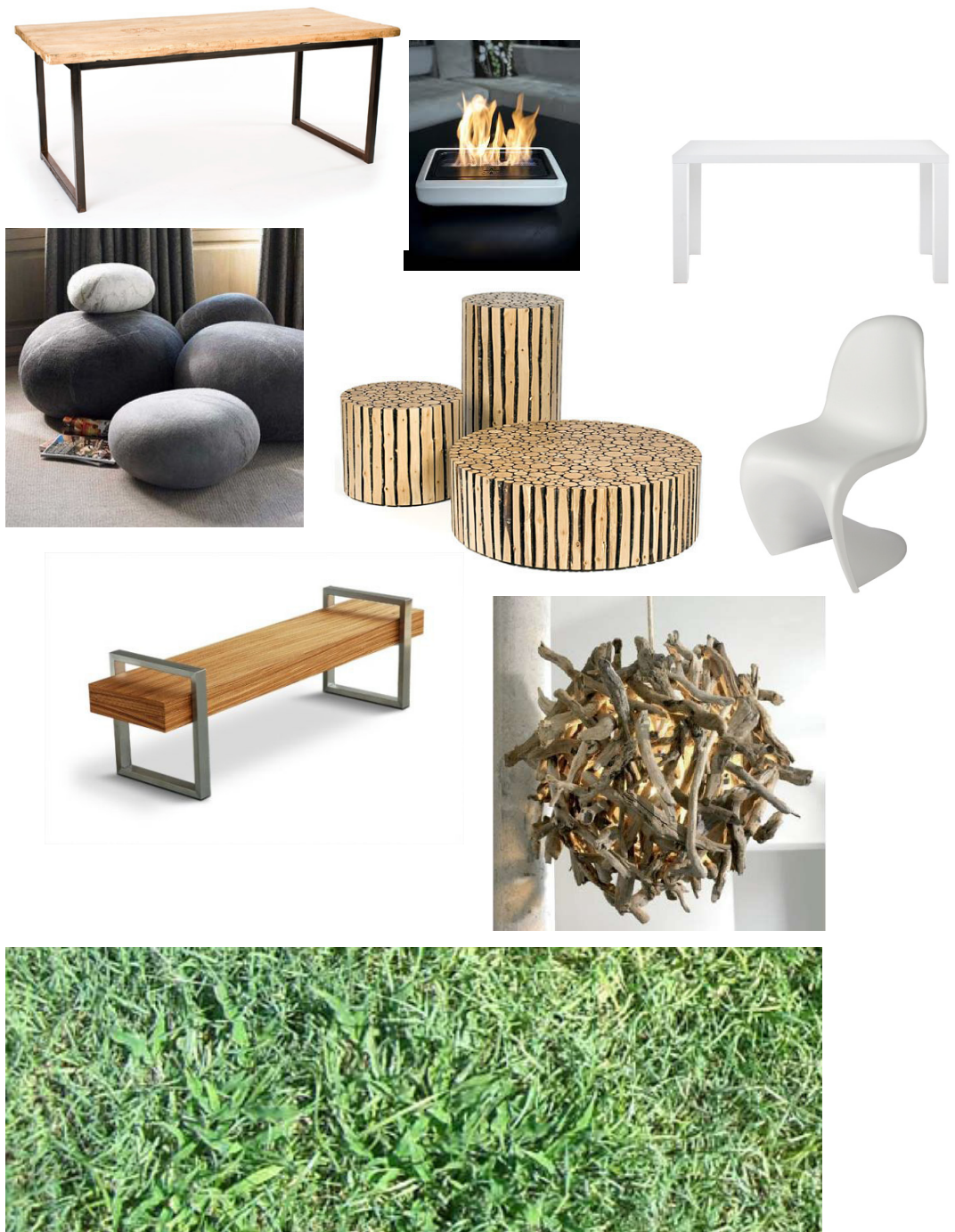
Finish Schedule 7.3

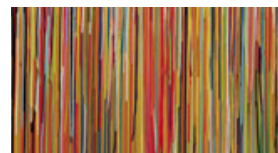
Room #	Room Name	Floor	North W		South W		West W		East W	
		FIN	MAT	FIN	MAT	FIN	MAT	FIN	MAT	FIN
101	North Entrance	W	GB	W	GB	B	EX	B	EX	B
102	Office 1	C	GB	P	EX	B	GB	P	GB	P
103	Office 2	C	GB	P	EX	B	GB	P	GB	C
104	Stairway	ex	GB	P	EX	B	GB	P	ex	ex
105	Gallery	Li	GB	P	EX/GR	B	GR	G	GB	P
106	Reception	Li	GB	P	EX	B	GR	G	GB	P
107	Group therapy 1	C	GB	P	EX	B	GB	P	GB	P
108	Therapy 1	C	GB	P	EX	B	GB	P	GB	P
109	Therapy 2	C	GB	P	GB	P	GB	P	GB	P
110	Group therapy 2	C	GB	P	GB	P	GB	P	GB	P
111	office 3	C	GB	P	GB	P	GB	P	GB	P
112	Office 4	C	GB	P	EX	B	GB	P	GB	P
113	Office 5	C	GB	P	GB	C	GB	P	GB	P
114	Office 6	C	EX	B	EX	B	GB	P	GB	P
115	office 7	C	EX	B	EX	B	GB	P	GB	P
116	File room	C	EX	B	EX	B	GB	P	GB	P
117	office 8	C	EX	B	EX	B	GB	v	GB	P
118	office 9	C	GB	P	GB	P	GB	P	GB	P
119	staff lounge	C	GB	P	GB	P	GB	P	GB	P
120	Priv. bathroom	T	GB	P	GB	P	GB	P	GB	P
121	south entrance	W	GB	P	GB	P	GB	WC	GB	P
122	south vestibule	W	GB	P	GB	P	GB	P	GB	P
123	Uni. washroom	T	GB	P	GB	P	GB	P	WC	P
124	Public washrooms	T	GB	P	GB	P	GB	B	EX	P
125	Massage therapy	C	GB	P	GB	P	GB	P	GB	P
126	Yoga/fitness	Li	G	P	EX	B	EX	B	EX	P



Room #	Room Name	Floor	North W		South W		West W		East W	
		FIN	MAT	FIN	MAT	FIN	MAT	FIN	MAT	FIN
127	Yoga storage	Li	EX	B	EX	B	EX	B	GB	P
128	Janitor	Li	GB	P	GB	P	GB	P	GB	P
129	Mechanical	Li	GB	P	GB	P	EX	B	GB	P
130	staff washroom	T	GB	P	GB	P	GB	P	GB	P
131	Kitchen storage	Li	GB	P	G	GW	EX	B	GB	P
132	Kitchen	Li	GB	P	GB	P	GB	P	GB	P
133	Shipping	Li	GB	P	EX	B	GB	P	ex	P
134	Priv. Dining 1	Li+T	EX	B	EX	B	EX	B	GB	P
135	Priv. Dining 2	Li+T	G	P	EX	B	EX	B	EX	B
136	Dining	Li	GB	P	EX	B	GB	P	ex	P
136	Market	Li	EX	B	EX	B	EX	B	GB	P

Furniture+Fixtures+Equipment





The Furniture and fixtures used within this design were chosen based on their qualities of nature and technology and the integration of these elements. The pieces are ones that start to blend nature and technology to create unique designs that showcase these qualities. The ability to express different forms allows each piece to be unique contributing to the overall quality of space within this wellness centre.



