

Setting the [Creative] Stage
The Precarious Theatre of Work

by

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Setting the [Creative] Stage

Abstract

There is a duality inherent in organizational architecture. It has been thought of previously in a somewhat rational and organized manner, while exercising a generalization of the everyday person. However, the architecture of the workplace has been employed to set boundaries, and from this, the organization of space can enhance or restrict communication, power, movement, dis/order, and ultimately, creativity. To support this research through design, the thesis includes a design proposal for a creative co-working space, in one of the world's design capitals: Milan, Italy. This thesis analyzes the discourse within creative industries and the precarity of work that has proceeded an era of technological revolution. Focusing on outcomes of immaterial labour and the influx of mental and physical health complications that have impeded the fabric of everyday life. The design intends to use the co-working model to provide an inclusive environment to support the creative worker in a time of increasing globalization; as productivity pressures increase, and time allowance decreases. Creating a series of architectural spaces that aspire to support the future of workplace to become both more creative, and in addition, more human.

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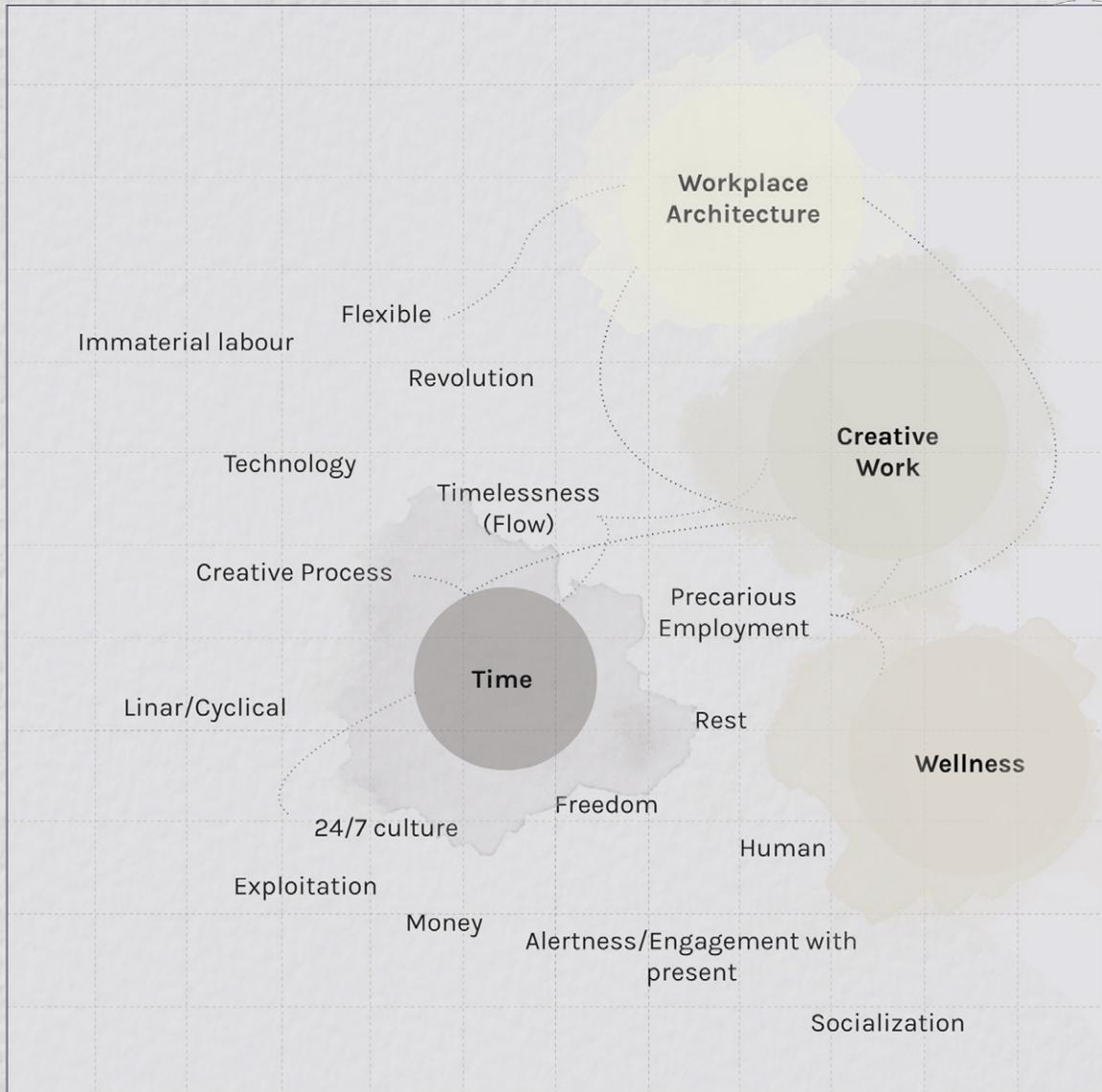


Fig. 1 | Mind map with key terminology

“There was, it appeared, a mysterious rite of initiation through which, in one way or another, almost every member of the team passed. The term the old hands used for this rite...was “signing up.” By signing up for a project you agreed to do whatever was necessary for success. You agreed to forsake, if necessary, family, hobbies, friends—if you had any of these left (and you might not if you had signed up too many times before). From a manager’s point of view, the practical virtues of the ritual were manifold. Labor was no longer coerced. Labor volunteered. When you signed up you in effect declared, ‘I want to do this job and I’ll give it my heart and soul.’”¹

*-Tracy Kidder,
writes of her experience designing a next-generation
computer in her novel, “The Soul of a New Machine”*

Part One

"The

Office"

Part I

"The Office"

Introduction

The role of the office space, and its building typology, has evolved quite slowly historically. However, currently, fundamental shifts are taking place in the nature of work that requires the questioning of a space that has often been standardized and reduced to banality. Major technological advancement has helped to shape the mobile ethos that currently exists. The nature of work is changing with rapid speed, and with this change, the importance of re-assessing the role of the workplace has become more urgent than ever.²

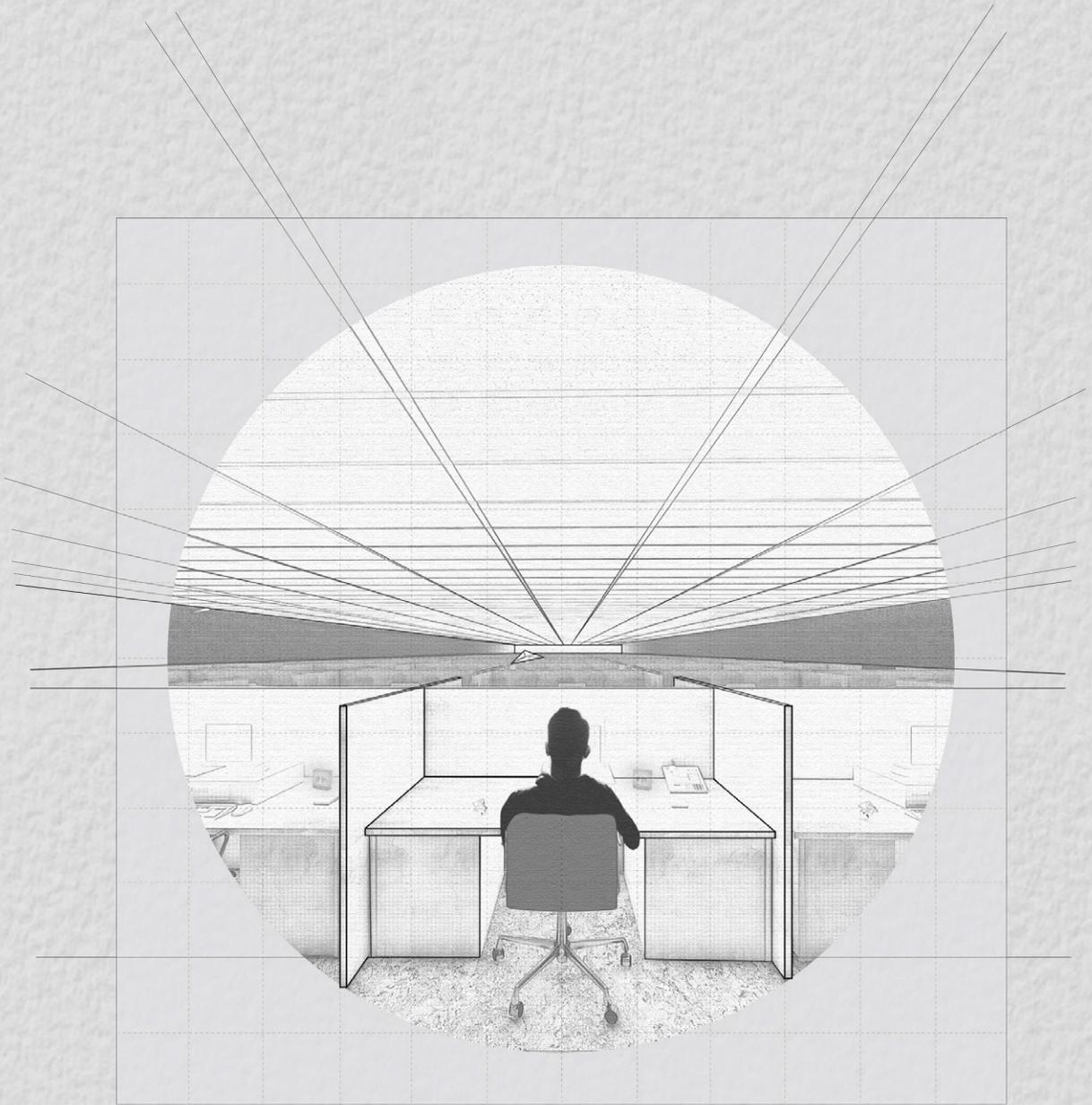


Fig. 2 | The abstract 20th century office archetype

Throughout historic typologies of organizational structures, to be discussed later within this section of the thesis, the typical office space has often followed a somewhat linear progression. This is meant as the nature of work itself changes, the work environment has seemingly progressed using a process of unfreezing its stable identity, changing, and finally refreezing it again, for years to come, until a change in the nature of work then pushes infrastructural change once again.³ The idea of replication and assimilation exists deep within the design of office space. In effect to design trends, such as the vast openness of the highly debated open-plan office space, as well as the heavily mocked cubicle, has come to a generalization of the everyday person. This leading to a modularized, highly scripted response to the ways in which many have

worked throughout history.

As society treads deeper into the waters of further globalization and technological advancement, a question that continues to persist within many industries asks: How will we work in the future? And what will the workplace of the future look like? When mentioning the future of workspace, often the workspaces of major corporations such as Google, Apple, and Amazon, are thought of for pushing workspace boundaries, with the significant glamorization of the so-called "creative workplace". Much fascination with creative work and spaces to support creativity has stemmed from theories that creativity will support a competitive edge in the rising knowledge-based economy.

One of the most influential, and debated, theories of this nature is that of urban theorist, Richard Florida.



Fig. 3 | Corporate headquarters of Apple in Cupertino, California

Florida's *Creative Class* manifesto⁴ published in 2002, remains one of the best-known exponents of the "creative economy". Florida predicted creativity, skill, and talent would foster the potential to produce a new range of jobs and wealth through the development of intellectual property, leading to the thriving of cities in the future.⁵

"In the business world, creativity is viewed as a wonder-stuff for transforming workplaces into powerhouses of value, while intellectual property – the lucrative prize of creative endeavor – is increasingly regarded as the 'oil of the 21st century.'"⁶

Andrew Ross' reflection illustrates successfully how the nature of work is changing. With a recent focus on supporting creativity in the workplace, as well as many economic and urban planning initiatives incorporating cultural and creative policies, it has become apparent that what in the past was considered the icing on the cake - *has now become the main ingredient*

of the cake – that provides a model for working lives, and labor processes.⁷ This shift into a ‘creative economy’ as Ross mentions, comes with politics of complexity. The longstanding equation that associates the creative life with suffering and a belief that personal sacrifice, is a precondition of creativity⁸ has continued to penetrate the social and economic fabric of many workplaces today, as competition and around-the-clock mentality persist. This leads to a discussion on the precarious nature of work that is becoming increasingly prevalent and exploring the spatial implication of temporality. As research persisted throughout the thesis work, time became laced throughout the fundamental themes within the research. It became difficult to separate the ever-increasing creative sector, from its connection with extreme pressure, often discounted compensation and

erratic work schedule, that continues to blur the lines of work and non-work time in the digital age. Within today's 24/7 society, nothing seems to be more fleeting, or more valuable, than time. The mental and physical strains that increasing production pressure places on today's workers, where rest and regeneration are seemingly too expensive to be structurally possible within contemporary capitalism⁹, led to the question: Is architecture able to address fundamental human needs to react to the exploitation of labor and resources? The temporal nature of the creative process, and the temporal nature of our world today was observed to further understand the ways in which humans are permanently suspended between being the cause and the effect, between designing their living systems, while in turn, being designed by them.¹⁰



Fig. 4 | The poster image for Somerset House's Exhibition: *24/7 A Wake Up Call for Our Non-Stop World*. The exhibition website describes the exhibitions as "An essential exhibition for today, exploring the non-stop nature of modern life. Many of us feel we're working more intensively, juggling too many things, blurring our public and private lives, pushing the limits of our natural rhythms of sleep and waking."¹¹

This thesis sought to question the current understanding and shaping forces of workplace design whilst considering the current pressures that exist in a society that is increasingly focused on outcomes of immaterial labour. Also, giving thought to the continuous cultural change and the influx of mental and physical health complications that have continued to impede the fabric of everyday life.

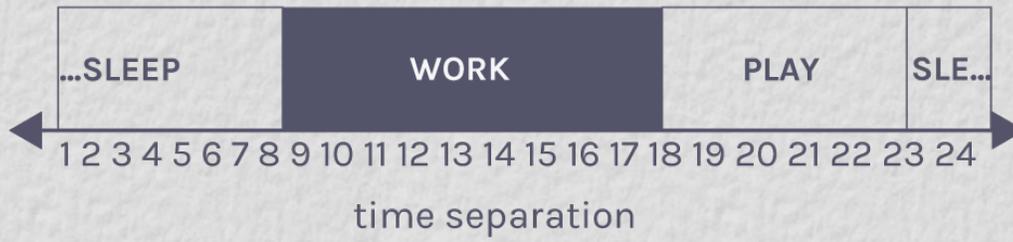
It is with these observations, that the thesis proposes through attempting to understand the creative thought process itself, and the pressures that coincide with modern 24/7 culture, inspiration for alternative design trajectories in the design of spaces meant to support creative work are possible. The project asks how architecture may support the cultural shift from a previous model of calculated production and quantification, to a

new workplace centered around the cognitively complex, creative application of ideas and information in the future. Through employing a sensitive approach to the design of the future workplace from both a psychologically and physically supportive lens, lessons can be inferred to address the paradigm shift that is beginning, and architecture may serve a deeper purpose within the everyday, bringing light to what has often been thought to be mundane.

The thesis research lends itself, through the use of multiple lenses, to support the belief that architecture has the potential to establish an effective resistance to the speed and contention of contemporary capitalist society, providing a platform for individuals to spur connection, rejuvenation and ultimately, earnest work. Thus the thesis looks to further understand the relationship of time, creativity and architectural

space centered on the acquisition of intellectual property. The design proposal includes a conceptual design for a new creative co-working structure in one of the world's design capitals, Milan, Italy. By thinking through designing, the thesis intends to encourage thinking politically and humanely about the future of the workplace, believing that being involved in creative endeavors requires customary thinking to be doubted in ways that open and expand the breadth and critical sensibility of the traditionally established spatial acumen.¹²

Typical Working Day



Future Working Day

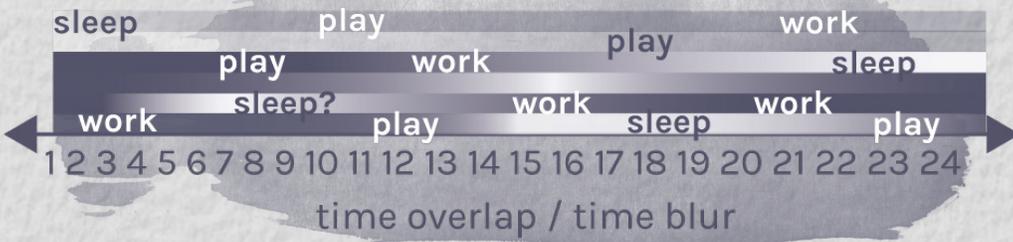


Fig. 5 | Changing time model diagram

“Architecture and the language of architecture –platform, blueprint, structure– became almost the preferred language for indicating a lot of phenomenon that we’re facing from Silicon Valley. They took over our metaphors, and it made me think that regardless of our speed, which is too slow for Silicon Valley, we can perhaps think of the modern world maybe not always in the form of buildings but in the form of knowledge or organization and structure and society that we can offer and provide.”¹³

-Rem Koolhaas

Historical Context

In the last two centuries, the evolution of work has changed immensely. The architecture throughout this history has memorialized the modes of work that have been executed, as well as the ideals practiced at the time. Changes to the methods of work have spurred a constant re-upheaval of spatial models, demonstrated in the figures within this section. With the fast pace of today's world, it is undoubtedly a challenge for organizations to take the time to question infrastructural effects, and its relation to the performer, otherwise known as, the employee.

Historic Typologies

1760-1840 Industrial Revolution



1890

Fig. 6 | Louis Sullivan, Wainwright Building, St. Louis



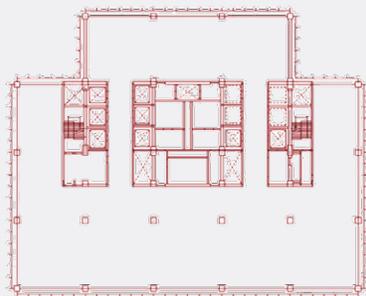
1904

Fig. 7 | Frank Lloyd Wright, Larkin Building, Buffalo



1915

Fig. 8 | Frederick Taylor and the *Efficiency Movement*



1958

Fig. 9 | Ludwig Mies van der Rohe, Seagram Building, New York City



1963

Fig. 10 | Quickborner Management Consultants, Osram Offices, Munich



1967

Fig. 11 | Playtime, film satirical, comedic depiction of the "office of the future"

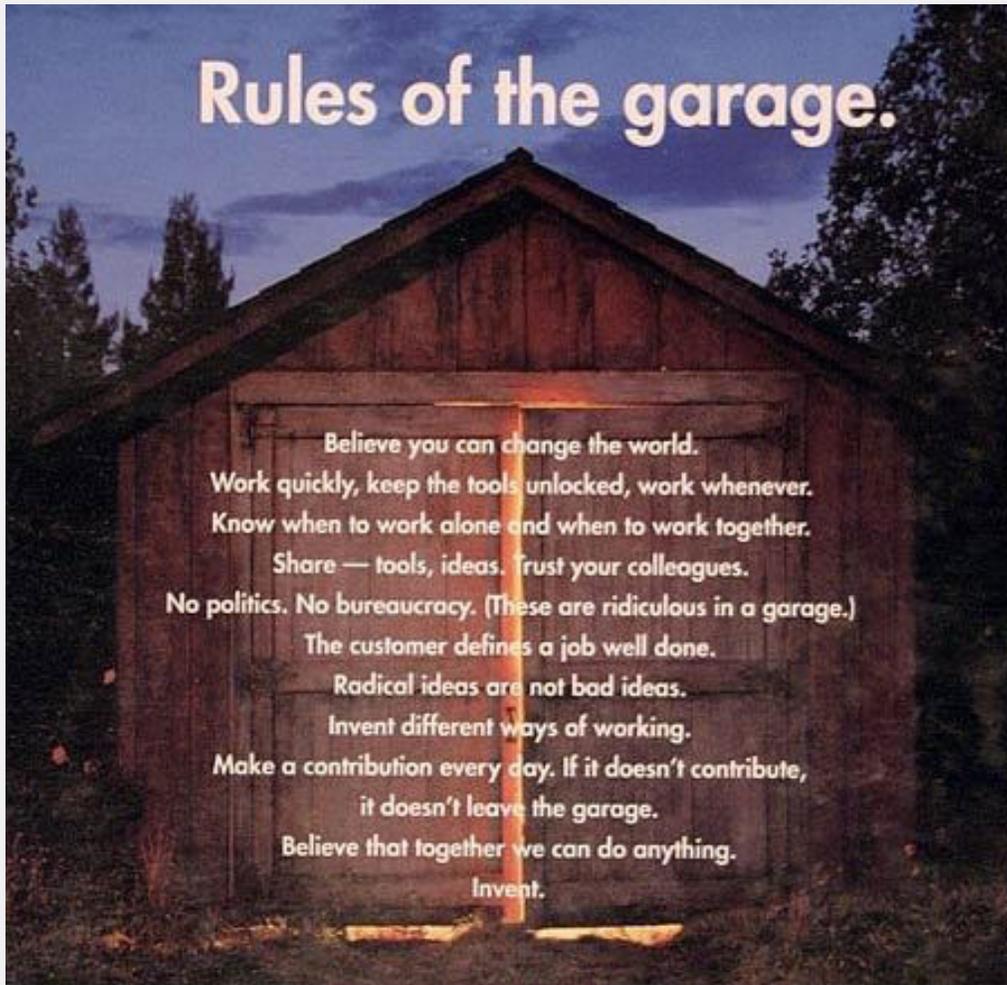
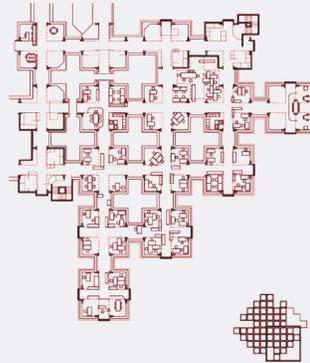


Fig. 12 | Hewlett- Packard garage becomes an icon in their 1990s re-branding campaign, transitioning to "HP"



1965

Fig. 13 | The cubicle is created by Herman Miller



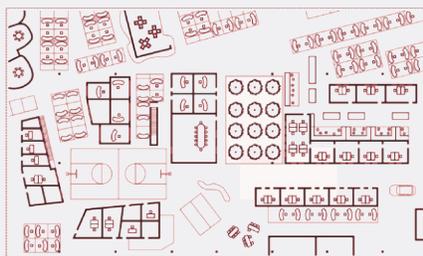
1970

Fig. 14 | Herman Hertzberger, Centraal Beheer, Holland



1980

Fig. 15 | Silicon Valley is born in "office revolt"



1997

Fig. 16 | Clive Wilkinson Architects, ChiatDay offices, Los Angeles



1998

Fig. 17 | In 1998 approximately 40 million Americans were working in various versions of the cubicle.



2000s

Fig. 18 | Computers become lighter, and the implementation of the internet has given some the ability to be mobile and work from home.



2010s

Fig. 19 | Recovering from the recession, square-footages of the office become important, many employees are lead to work in "third spaces"



2018

Fig. 20 | NBBJ Architects, Amazon Headquarters. Technology companies leading the way for new workplace progresses.



2020

Fig. 21 | Collaborative office space is becoming the focus, including comfortable environments and autonomy. Design is seen as a tool to attract and retain talent.

"The shift from the industrial age, with an emphasis on production of goods, to the service-based economy in the 1930s was followed by the formation of a 'knowledge economy' with an emphasis on information process in the 1960s and growing importance of 'creative industries,' with the production of new and original data in the late 1990s. The changing nature of work overtime has resulted in changing requirements for the workforce, and hence changing needs for the workspace."¹⁴

The evolution that Kornberger and Clegg mention can begin to be understood through analyzing Figure 6-21. Methods of working have continued to evolve, and so have the spaces in which work is performed. These changes, in turn, choreographing the mental and physical activities that are afforded to us through spatial structures.

The necessity to exercise control and supervision to promote efficiency became popular due to the ideas of Frederick Taylor, in his publication *The Principles of Scientific*

Management, (1911) during the Progressive Era in the United States.¹⁵ Without a clear understanding or any intrinsic value being placed into the mental health of employees, and since work itself had not evolved significantly, the blueprint of Taylorism became the paradigm that lasted until the 1960s.¹⁶

The office typologies of the historical examples shown, such as the Osram Office (Figure 10) and Centraal Beheer (Figure 14) were the beginning of implementing democracy in the workplace. The Osram Office practiced a new open-plan typology that was named “burolandschaft” or office landscape, which began breaking down hierarchal structures where managers were mixed in with other workers. Within Centraal Beheer (Figure 14) the search for more humane and personal working environments continued, within the labyrinth

grid of workspaces individuals became able to personalize workspaces, which was a significant contrast to designs previously executed at this time. However, the workplace remained subject to the control of preconfigured internal relationships and definite limits.¹⁷

Although the industrial ideals aforementioned, are often no longer proclaimed to be in use, many of the types of spaces that promote these ideals exist currently, and are still in use, and even continuously replicated today in the design of office space.¹⁸ The historical value that can be inferred from the architectural values placed from the Wainwright building (Fig. 6) to the ChiatDay offices (Fig. 16) is the inherent optimism of architects over time, who sought to better the lives of the white-collar worker. However, why does the dissatisfaction of office spaces – the place where most people

spend the majority of their waking hours - and the small ironies, larger defeats, and myriad of aggravations have continued to seep into the broader culture for years?¹⁹ In his book *Cubed*, Nikil Saval writes of the evolution of office design using a wide range of media, from examples such as the comic *Dilbert*, films such as *Office Space*, and memoirs to denote a “secret” history of workplace evolution. He argues that the history of the spaces we have worked in for over two-hundred years is hardly a “secret” history, but it is a history that makes explicit changes in a space—the office—that has been more sat in, than examined over time.²⁰

By studying the changes in workplace architectural typologies throughout history, and even the designs that some of the most successful architects throughout history such as, for example, Louis Sullivan, Frank Lloyd

Wright, and Mies van der Rohe, have taken optimistic and utopian attempts at, there still exists a deep dissatisfaction and somewhat inhumane nature to the design of workplace architecture. This section of the thesis proposes that throughout history, perhaps some of this unhappiness stems from an obsession for order and control within the design of office space. Structures of power, political, social and economic values, as well as perceptions of time, can be felt and influenced within the design of the workspace. Through looking to historical examples, as well as understanding current debates such as open-office versus closed, cubicle versus no cubicle, as examples, it can be argued that is not perhaps one specific spatial model that is responsible for the dissatisfaction or satisfaction in the workplace environment. It is significant to mention that perhaps what is failing

in some of these designs is the consideration of the wide range of human needs in design. This is concerning notions of private/public space, personal space, as well as acoustic and lighting needs. In addition, designing for those that may be extroverted, as well as introverted. We have seen a default method in management, and design, of "giving" employees one space to spend their days in, determining select proximities to others, and qualities of space to be experienced, that they often have very limited control over. This thesis suggests that a future of flexibility and acceptance of the creativity of the user can be implemented by accepting the disparities and contingency that daily life presents, rather than the use of a master planning perspective, producing a needed fluidity to architectural space.

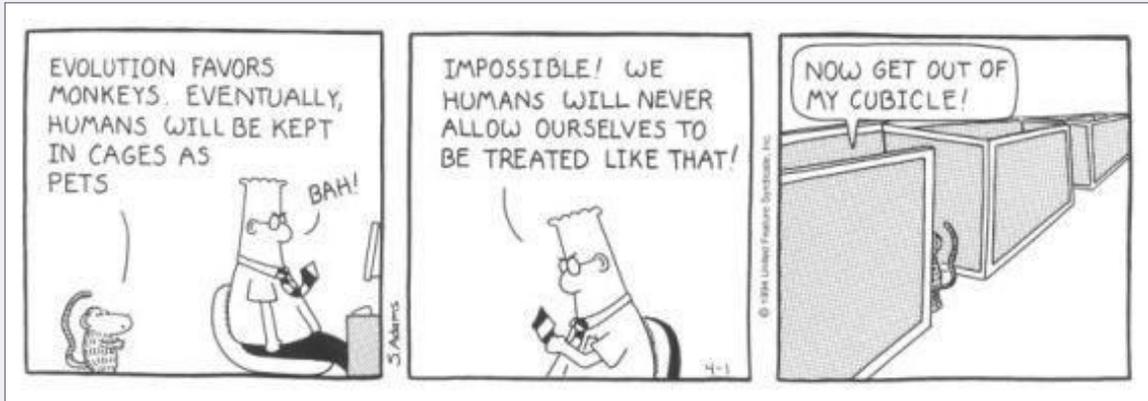


Fig. 22 | Satirical American comic strip Dilbert



Fig. 23 | Hit television show, *The Office (US)* comedy of the monotonous everyday life of employees at *Dunder Mifflin* paper company

Co-Working

The term “co-working” was popularized by Brad Neuberg in 2005, with the intention to combine the freedom of working independently with the structure and community of working with others.²¹ Co-working originally involved the creation of spaces for individuals to work independently but are increasingly interested in the synergies that occur within a community of individuals who work alongside each other.²² The phenomenon has continued to grow and expand, now at various scales, with diverse disciplines and businesses choosing this new work model.

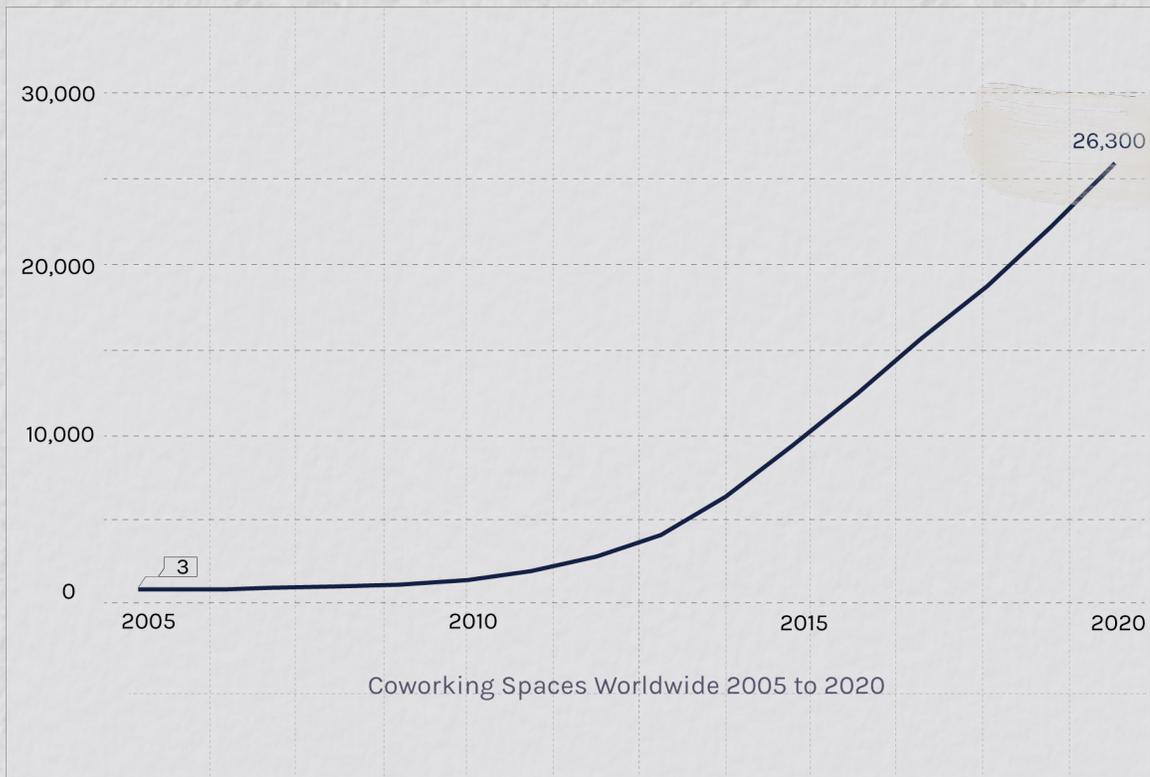


Fig. 24 | Graph indicating the rise of co-working spaces worldwide 2005-2020

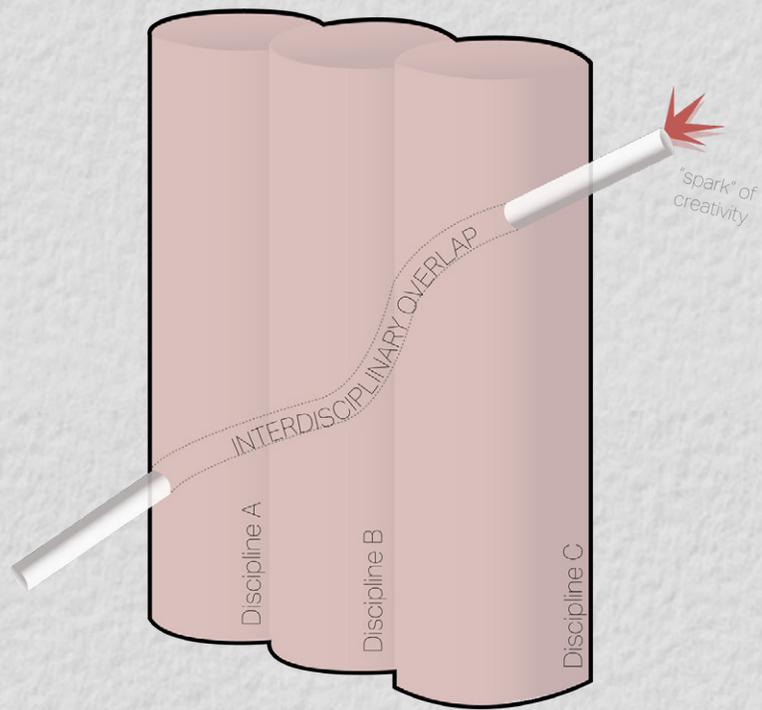


Fig. 25 | Interdisciplinary silo, conceptual diagram

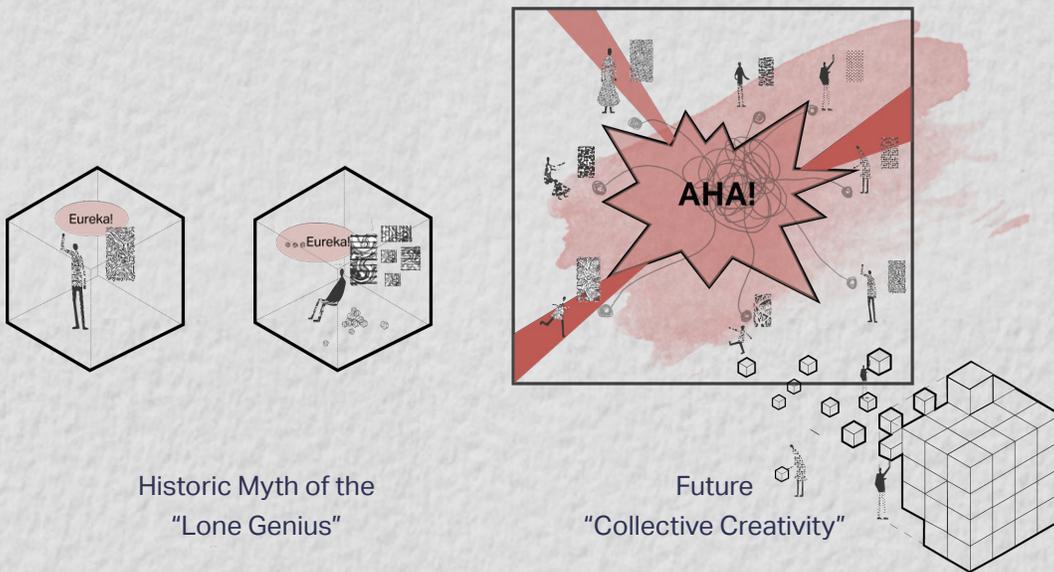


Fig. 26 | Historical conception of creativity, conceptual diagram

The co-working model is a recent movement in workplace design that is on an



Fig. 27 | Spiral Muse, first noted co-working space

exponential rise globally. Although for many years companies within Silicon Valley have been noted to realize the benefits of serendipitous interactions of interdisciplinary team members, the number of large-scale co-working enterprises is rapidly increasing recently at the global scale. The reason for this substantial rise of the co-working model has many variables that will be expanded upon within this section.

The rise of technology and globalization

within the 21st century has led to a widespread change in the nature of relations from communication to economic models, and the extreme connectivity has in effect altered people's socio-spatial relationships. The spatial independence that has come with technological advancement saw a rise in a new way of working, known as telecommuting. Mobile technology gave some the freedom to traverse everyday life, released from the office space, free to decide when and where to work. However, as quickly as this autonomy has been implemented, even faster have the struggles with isolation, lack of social contact and a general expansion of work hours, blurring the boundaries between work and home time in many professions.²³

The term co-working describes the physical configuration of workspace with an implemented philosophy of sharing, providing

carefully curated spaces that facilitate networking and interaction opportunities across organizational and disciplinary boundaries.²⁴ The term was first used in 1999 by Bernie DeKoven to describe a style of autonomous work made possible by advances in mobile technology, however the first official co-working space was opened by Brad Neuberg, a coder in San Francisco, in 2005, within Spiral Muse.²⁵ Since the first opening in 2005, the model of co-working has been on an impressive increase around the world.

The need for the model arose in response to economic, social and technological changes unique to the 21st century. Aspects such as loneliness, a rise in entrepreneurship, economic decline and a yearning for diversification of interactions, collaborations and workspaces have all been drivers for the rise of this model.

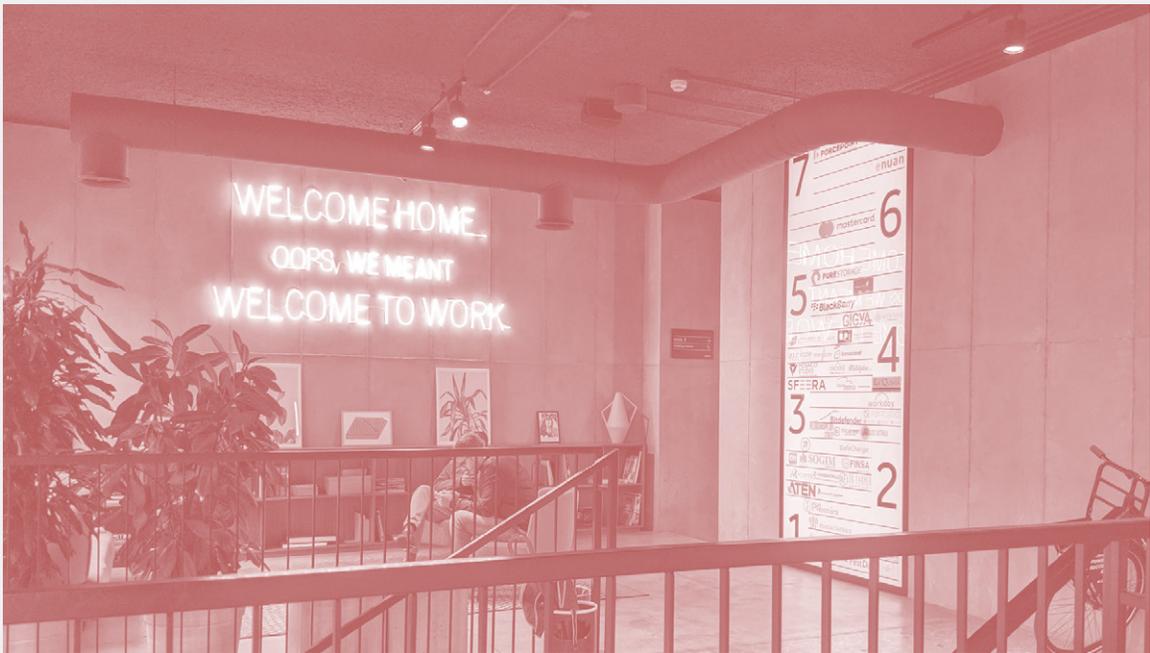


Fig. 28 | *Spaces Milano*, main entrance space. Spaces markets itself as a “full service creative working environment”

Alongside this rise has created several large-scale co-working enterprises, such as *WeWork*, which in 2016 was the fastest-growing lessee of new space in America²⁶, but has recently seen a downturn due to its business strategies.

By personally touring multiple co-working spaces I was able to see just how diverse the co-working model can be. An analogy that is worth noting is, the co-working model is seemingly as diverse as that of a restaurant. This is in respect to, that the type food (work) can be of almost any category, be it fast-food, (temporary, hot-desking spaces) or fine dining (permanent leasing) and the size of the space or number of occupants can vary significantly. Having toured a number of spaces for research, this comparison has rung true. Many spaces have select clientele, or market, that they look to cater

to, or sizes of business they wish to support. The model can also vary significantly within the same building. For instance, upon touring the co-working enterprise: *Spaces*, (Porta Nuova location) in Milan, there were “hot-desking” spaces available on the main level, where individuals may rent space on an hourly basis, and in addition, the first floor through to the fifth were a mixture of entrepreneurs, small and mid-sized businesses of all disciplines. On one floor offices included: an advertising company, dog treat company, and a business that assists people to get a travel visas to Australia. This is mentioned to demonstrate the complete variety of offices, which all share common utility and kitchen spaces. Upon the tour I was informed that many of the businesses are known to enter into business deals together. While touring the numerous co-working spaces in Milan, I was

struck by the inspiring collaborative nature of these places, and the great support that these places serve their internal community.

However, I was surprised with the barrier of entry to most of these spaces. It was often difficult to receive a tour for research purposes. For places that are seemingly the future in supporting collaboration and entrepreneurship, it interested me that community connections, or public events or interactions were not more prevalent. Co-working spaces generally have networking events for paying members, but crossing the threshold from the front desk to workspaces is only possible for members. For confidential purposes this makes sense in its design, however I question within the thesis design work what the possibilities of this model could be with a clear public presence, giving opportunity for broader community connection and interaction.



Fig. 29 | Impact Hub co-working space, Ottawa



Fig. 30 | Impact Hub, Ottawa members of the public gather to discuss “Building Liveable Cities” on February 25th 2020

Change Makers

Case Study: Stanford d.school

The d.school at Stanford is an example of a breeding ground for creativity. The design school has had an influx of world-changing innovators since its inception in 2005.²⁷ The focus of the building's design is to support idea generation, collaboration and experimentation.²⁸

The design of the d.school, paired with the culture that surrounds it, has led to its success. Bringing students from various disciplines together to work on problems and come to creative solutions, is further supported by the variety of spatial settings.

“[d.school is a] loose, freewheeling, fast-and-furious energy rises; there is a sense that things are somehow unfinished, yet headed somewhere new and exciting. It’s a kind of educational playground that is intentionally designed to be adjustable, exchangeable and movable; nothing here is ‘precious’. Exposed levers, casters, rollers, hinges and mechanisms say, ‘it’s okay to touch.’ The focus of the building is to support idea generation, collaboration and experimentation, and it showcases how the design of a physical space can truly shift the way in which people communicate with one another.”²⁹

-Groves and Marlow describe their experience of d.school



Fig. 31 | d.school

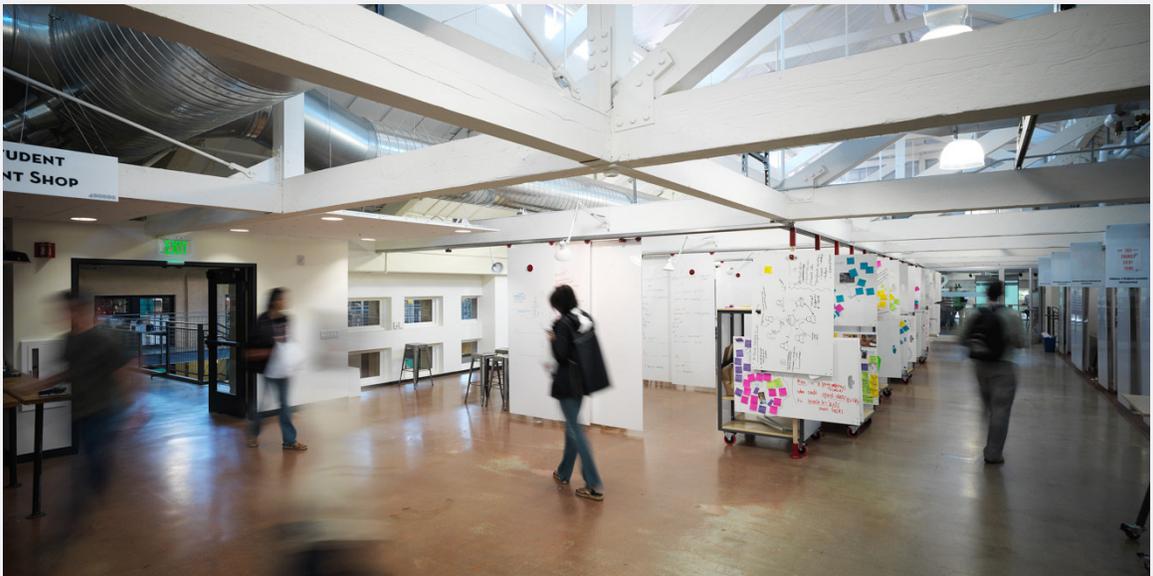


Fig. 32 | d.school display area

Spaces for making, through the inclusion of workshops, as well as spaces for exhibiting work, all give students a freedom to control, as to when, where and how they work, which is a critical part of creative confidence building.³⁰ The openness of the space, includes students that are outside of the d.school curriculum, any student can enter the space. This allows for a wide range of interactions and collaborations, that could vastly change methods of working in the future. The example that d.school sets by constantly breaking barriers and continuous innovation further supports the notion that creativity can be spurred by supportive environmental cues, or affordances of space.

Case Study: Espace Thèse-vous

Espace Thèse-vous is a testament to how the co-working model can vary significantly, and the users and interactions within the model are seemingly infinite. This specific model was developed in Montreal to support students as they write their thesis documents. The space is privatized and not affiliated with any specific university in Montreal but has become a gathering of students from varying universities and varying disciplines.

The design is a notable concept as the design evolved entirely around the activity of writing.



Fig. 33 | Espace Thèsez-vous work area

The questions addressed during the design meeting as noted by the architects were as follows:

- “(1) How to create a unifying place so that research has a storefront?
- (2) What are the materials, volumes, colors and fixtures to create ergonomics and optimum atmosphere for writing?
- (3) How to integrate the space area without contributing to its gentrification?”³¹

The answers to these questions were explored through the built form, creating a series of comfortable, bright spaces where students are able to be together and be productive, in a supportive environment. The co-working space is used by thesis students and operates as a space to break the isolation that many thesis students experience while writing, and encourage interdisciplinary and inter-university connections, that has led to the model’s success.



Fig. 34 | Espace Thèsez-vous

Case Study:

Microsoft - Redmond Campus

The Microsoft headquarters, in Redmond, Washington is slated to be the epicenter for the future of workplace design. Microsoft's Workplace Advantage team has been since 2004, studying the ways that employees work within their offices around the world. Realizing that some employees were not able to visualize the impact that space may have, Microsoft within the Redmond Campus headquarters developed a workplace lab on the campus, dedicated to provide a range of spaces, some permanent, and others temporary, for employees to move throughout to gauge what environments they preferred throughout the day.³²



Fig. 35 | Temporary spatial arrangements used during experimental phases



Fig. 36 | The Hive at Microsoft, Redmond, the 660m² facility is used to study work-setting interplay, and employee experience and well-being.



Fig. 37 | Restoration space, Microsoft Redmond

Part Two

Creativity

Commodification of the Creative Industry

In recent years factors such as digitalization and globalization have continued to transform society in significant ways, some of which being how we communicate with one another, purchase goods, and the work that we do, all changing, and with that, at rapid speed. Transformation of the pace, and the type of work that we do, has led to the questioning of how we will perform work in the future. This evolution has much to do with recent advancements of technology, and the shifting of work from a previous data processing model to a cognitively complex, creative application of

ideas and information.¹ The anticipation of this change was documented in Richard Florida's widely influential and debated "Creative Class" manifesto² published in 2002, which remains the best-known exponent of the "creative economy." In this, he predicted creativity, skill, and talent would foster the potential to produce a new range of jobs and wealth through the development of intellectual property.³ The rise of creative work was anticipated to lead to a higher value of creative work, liberation and freedom at work, leading further from the traditional employed experience where the division between employer's time and personal time exists. A past life where the employer would use the time of the employee's labour, and see it is not wasted: not the task, but the value of time when reduced to money, became dominant as time became currency: it is not passed, but

spent.⁴ From this, it is clear that theories viewed “the creative economy as a plausible model for job creation that offer[ed] work gratification on a genuinely humane basis.”⁵

After nearly two decades following Florida’s original manifesto (2002), there have been critiques of the promotion of the creative class, as it has been said that the support of the new creative economy has been sugar-coating the precarious employment situations that many creative workers face.⁶ This critique also arguing that this has led to the exploitation of creative workers by the use of aspects such as unpaid overtime and erratic work schedules, as productivity pressures increase and time allowance decreases. Creative activity has been advertised to managers as a competitive edge in globalizing markets, as the proven capacity of ‘creative districts’ to boost realty

prices in select cities continues to rise, and by now, building on well documented formulaic cycles of gentrification.⁷ However the creative exponent is hung onto as a way of life, as many hope that creative work is something that cannot be overtaken by technology, or outsourced globally, creative work is thought to offer work gratification on an authentic, genuinely humane basis.⁸

"In other words, the increase in the overall supply of creative workers paired up with neoliberal policies on work and employment which fostered project-based work and short-term arrangements of different kinds, reduc[ed] the general amount of earnings potentially available. At the same time, the parallel 'technological revolution' brought along by digital technologies was dramatically reconfiguring the processes of production in industr[ies], together with the nature of the demand. Creative jobs were, de facto, both decreasing and changing as a result of the integration of digital technologies and practices into the working routine, such that it may be argued a transition or shift towards the integration of digital-based production within processes of accumulation is taking place with several and somewhat contradictory effects on labour relations and processes."⁹

As noted by Alessandro Gandini, while global competitiveness as well as technological advancement continue to intensify, job security is becoming an existential condition that will continue to challenge social, economic and political boundaries of the future.

The topic of precarious work as mentioned within the thesis can be defined as: a term that critics of globalization use to describe non-standard employment that is insecure and often poorly paid, with consequences such as poverty, insecure living, social isolation, as poorly paid work continues to compel people to work longer hours to compensate.¹⁰ All of these effects have abilities to damage well-being and community relations. "This kind of pimping of the creative force is what has been transforming the planet into a gigantic marketplace, expanding at an exponential

rate, either by including its inhabitants as hyperactive zombies or by excluding them as human trash.”¹¹ Expanding upon the previously referenced interview of Rem Koolhaas, in the first section of the thesis, architects may be able to learn from creative workplaces such as those in Silicon Valley, perhaps without jumping to the physical structure of place, but perhaps psychological structure of place. The notion of the creative hub of Silicon Valley being perceived as “faster” than the rest of the world stems from its history of precarity, as: “[precarity is] an existential condition, that transverses not just the labour market but the entirety of social relations, instilling fragmentation and flexibility, competition and insecurity, angst and entrepreneurship into personal bonds and behaviours, affects, and psychological attitudes.”¹²

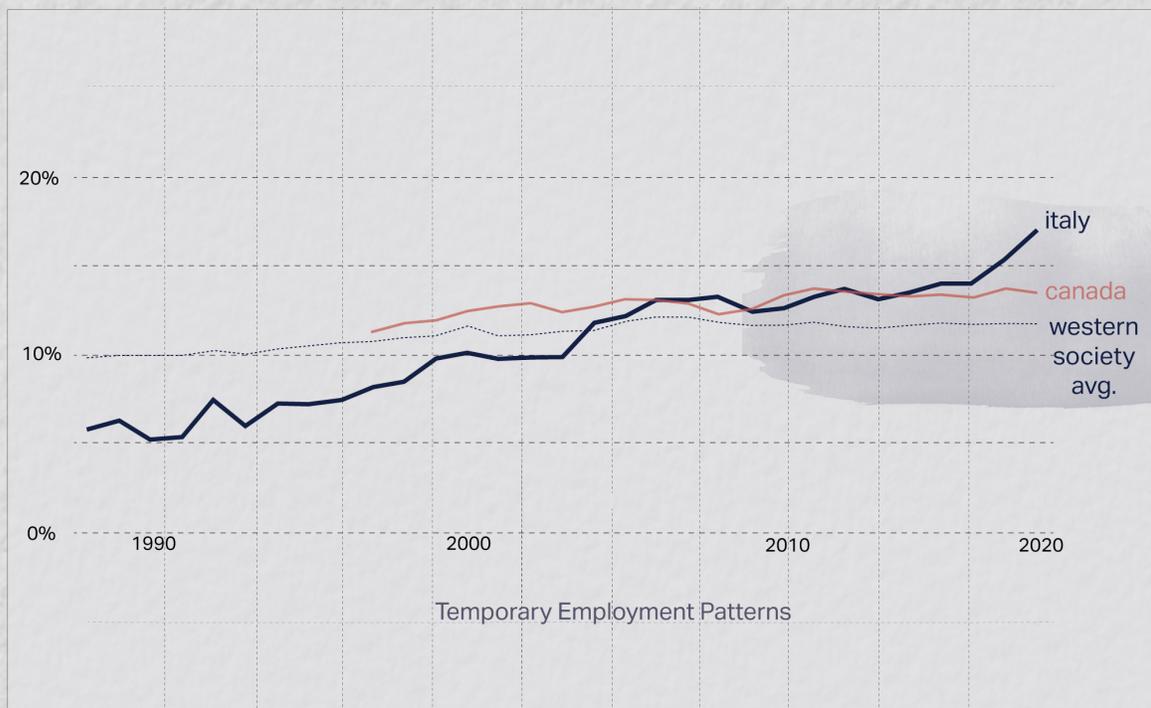


Fig. 38 | Temporary Employment patterns, within western society graph of 1990-2020

Changes within labour structures and the culture of work environments have a vast ripple effect, leading to complexities which will continue to be discussed throughout this thesis.

This leads to the question of where the design of the office environment is today. With large conglomerate creative companies continuing to blur the lines between labour and leisure spaces. In addition, some major conglomerates, have continued to function in a university-like campus model, creating a live/work ethos that has ultimately led to a warp in the modern employee's perception of time. This ethos has also lead in use creative workers as instruments of capital, and machines of production, often operating at the "Silicon Valley speed", as mentioned previously. This project began looking to be critical of this agenda and the commodification of creative work, aware that

we are situated in a current capitalist society that prizes competition, busyness, and increasing lucrative outcomes. *Deep Work* written by Cal Newport, discusses societal pressures that have led to an era of increasingly distracted workers, completing tasks of shallow work, that inhibit maintaining periods of deep work.¹³ This is a challenge to the changing model of work as, “[knowledge] work is not an assembly line, and extracting value from information is an activity that’s often at odds with busyness, not supported by it.”¹⁴ Increasing demand on creative work, has meant a stretching of managerial quantification, attempting to record creativity. As Newport notes: “this potent mixture of job ambiguity and lack of metrics... [Allows] behaviour that can seem ridiculous... [In] the increasingly bewildering psychic landscape of our daily work.”¹⁵

Psychology of Creativity

The thesis began questioning, if the future of work may place more pressure into creative economies as technologies continue to advance, could ways of thinking, therefore, influence ways of designing in the future? This section of the thesis attempted to understand the structure of the highly ambiguous, creative thought process, and how it could potentially offer inspiration for alternative design trajectories in the design of spaces meant to enhance creativity. When speaking of creativity, throughout history, there has been a romanticism of the stereotypical creative process, a romanticism of the lone

"creative genius". This section of the thesis would like to re-frame our understanding of creativity as purely an individualist struggle against the masses and suggests understanding the topic of creativity as an immensely contextual and experience-based phenomenon.

"Consequently, it is harmful to perpetuate the belief that innovation is solely the product of preternaturally endowed individuals. All creative work is the result of shared knowledge and labor; originality springs forth not from the forehead of geniuses but from ideas pooled by a community of peers and fellow-travelers."¹⁶

This notion is important to the understanding of the psychology of creativity, as well as the architecture of the workplace, as society continues to approach the increasingly complex issues that humans face today, it must address our current seemingly fragmented world view by breaking down disciplinary silos, in order to enhance creative work in the future, which is

becoming more prevalent throughout current co-working models and innovation centres.

The multifaceted nature of creativity research has been explored using various approaches. The research of creativity is seemingly divided into four distinct themes of study. According to Isaksen and Treffinger, the many areas of creative research now cover a number of categories, first being the research on the person (or creator), the process of creativity including stages, steps and strategies, studies of products generated, and finally the study of environmental contributors to creativity, that help to support or inhibit creativity.¹⁷

Researchers have developed models that begin to use creative phases as a way of understanding process. A model that is widely referenced in creativity research is the use of the Wallas model, created by psychologist

Graham Wallas, which bases itself upon four stages, beginning with preparation, incubation, illumination and ending in verification.¹⁸ Although Wallas' theory was published in 1926, the popularity of this model continues. Researchers suggest the continued support of this is due to similarities to biographical writings of the creative process, resonating with individuals who feel they themselves are creative, do in their process and although researchers do not fully accept the model, there has yet to be a model to come out that rivals this.¹⁹ The four stages include preparation as a process of gathering information and defining the creative problem at hand. The second proposed stage is incubation, which is a term that was coined by Wallas²⁰ that is a somewhat ambiguous term describing when an individual ceases to work on the problem at hand, but continues to work

on the problem subconsciously. This explains the famous saying that the mystical "eureka" moment happens in the bed, bus and bath.²¹ Historic examples of this are Nikola Tesla's idea for alternating current, coming to him while on a walk, Archimedes' "eureka" moment while having a bath, or Poincaré describing insight occurring when he took breaks from work.²² The incubation stage is thought to aid in the transition to the illumination stage where the individual can feel the idea coming to them, on the "fringe" of consciousness, thought to be a fragile time where outside interruptions could affect the thinking process.²³ The final stage as proposed by Wallas is verification. The verification stage, Wallas proposed, is where the individual receives feedback or evaluation of their original idea, often from secondary sources.

"The creative breakthrough thought seldom happens at the desk. It may happen in a subway train, in the shower before breakfast, or the moment before you go to sleep - and then of course you forget the thought. In other words, it happens most when there is a phase change. Your surroundings have shifted from the routine norm of work."²⁴

I do not personally wholly agree with the linearity of the Wallas model, in terms of defining the creative process. I believe it is very challenging to break the process into select linear stages, in a sort of scientific progression, it is often much more fluid than what Wallas suggests, however, there are valuable thoughts to be noted within these separate realms of the process that are relevant.

The Wallas model's simplicity of breaking the creative process into clear, concise stages, is questioned by psychologist J.P. Guilford who notes that by breaking the creative cycle into four distinct categories, perhaps we do not see the bigger picture, narrowing creativity into a pragmatic operation, glazing over the actual more complex psychological operations within each stage.²⁵

Guilford mentions that the four-stage

model does not begin to address the specifics that happen within the mind of the creative during the stages, he uses the example of fluency, flexibility, reorganization, ability to deal with complexity and evaluation, which could become interesting points of examination, and be of interest within the design process of spaces to support creativity. Another valuable consideration is the potential overlapping of stages within the creative process, which turns itself into another stage altogether. Isaksen and Treffinger have a discontent for the four-stage Wallas model as well. They propose to expand the four-stages into a five-stage model to include a "mess-finding" stage.²⁶ Gibson's work in ecological psychology is also of importance to the spatial context of creativity. This is notable as Gibson outlined the relationship between the person and their

environment as a series of affordances, or actions, that are able to be perceived and used. Building upon this, the ecological perspective of creativity "...considers the role the body plays in constituting cognition (Reed, 1996) suggesting people actively exploit features and attributes of architectural settings as part of their cognitive system, taking ownership of their experiences in their settings."²⁷ This suggests that spaces to support creative thought must have, or communicate, levels of autonomy within space, and give the ability for everyday life to play its course, lending a malleability to architectural space.

Psychologists Wynn & Coolidge's development of their study of "thinking like a blacksmith" analyzed the creative artist as "seeing through" their tool of choice, the artist's tool becomes an extension of themselves. It

is discussed how the blacksmith works with tools and environments familiar to them, but this analogy can be applied to other creative practitioners as well. An architect with a pencil follows a similar ideology. This describes how people use familiar tools and materials specific to themselves during the ideation process in order to “see through” the tools. They also discuss the affordance that the organization of the blacksmith’s shop lends to the affordance or opportunity of use, and therefore creation.²⁸ This is of importance as spatially, environments are able to communicate availabilities, familiarities, affordances, and certain freedoms that may help or hinder creative process and progression.

This section is included within the research to situate our current psychological understanding of creativity, and thus the

overarching creative process. Before beginning this thesis my understanding of creativity was vastly different than it is now. Enrolling in a fourth-year *Psychology of Creativity* course with Carleton University at the beginning of the thesis year was crucial to this body of work, in order to better understand this complex topic. The concept of creativity is indeed complex, however, it is often marketed as though it is something simple, or quantifiable, and easy to design for, with countless slogans of “creative spaces” in current media.

This section is used to argue through studying the psychology of creativity, processes relevant to the experience and design of buildings emerge, and we may learn new ways of dissecting those processes and build upon the resultant insights to provide new tools for design.



Fig. 39 | Recent propaganda for creativity in the workplace

This solidifies Sarah Robinson's statement that,

"...one might reasonably ask—and many do—whether there is any practical value for architecture and design that comes from knowing, for example, how neurons are wired up in the brain. [Robinson] argue[s] that there is value: knowing how the machine works can offer insights into its performance and limitations, insights into what it does best and how we might be able to tune it up for the task at hand."²⁹

The spatial dimensions of the workplace are a powerful tool for communication, generating creativity, inducing culture change, speeding up innovation projects, and enhancing the learning process that can always be further understood, and designed for, and using an interdisciplinary lens to do so may present beneficial ideas that are generally outside of everyday scope.³⁰

Work and Creativity

The understanding of creativity as discussed in the previous section, is in no way unanimous at this point in time. Creativity is ambiguous and in a continuous flux, with an uncertainty that has much in common with architecture itself.

Using inspiration from Jeremy Till in his work *Architecture Depends*, the notion of mess and architecture can be used as an element of the process in the design of the workplace. As Till notes, "We need more people who dare to eschew the greats and the specials, and look to the everyday, the social, and the economic as forces that shape architecture."³¹

The users of space will always perceive the environment in ways that the architect may have never imagined, just as the creative process will be inherently individual, the flexible human requires architecture with an ambiguity to flourish within a shared background, providing a frame -or theatre- for life to unfold within.³²

This is where the connection between “staging” used as staging a performance, and in reference to the use of creative stages in psychology is made. The connections between theatrical terms and creative stages is used to help spatialize the creative process and situate the architecture in a state that teeters between permanence and impermanence, similar to that of theatrical production. Theatre, much like architecture, does not exist as purely a physical object, it is the life and engagement that animates it.

An important modernist term, particularly following 1950, the term 'flexibility' offered hope by introducing time, and the unknown, the purpose of flexibility became within modern architectural discourse, a way of dealing with contradiction that arose following the moment of occupation.³³ Evans (1978) equates modernity with attempts to order social behaviour and limit the unpredictability of everyday life.³⁴ This is where the dramatization of creative work arises. Interest in architecture as process is evident in the writings of several theories.

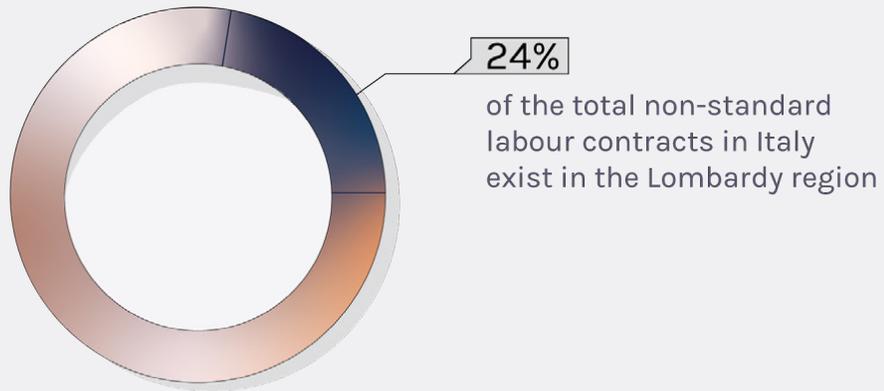
For example,

"Lynch (1976) wrote on the temporal patterns in places. Pred (1984) commented on constant change in places. Massey (1994a), Thrift (1996), de Certeau (1984) and Soja (1989) discussed the role of events and practices in continuous formation of places and Castells (1991) considered contemporary urban environments integrated with digital technologies as a "spaces of flows" rather than as "spaces of places". Related work of Lefebvre (2001), Harvey (1993, 1996), Smith (1984) and

Brenner (1998) considered places as dynamic outcomes of social production rather than static or given phenomena."³⁵

Therefore, it should not be the goal of architecture to present itself as a finished product, but rather, a continuous staging of opportunity within space that encourages certain activities, driving certain ideals into existence, with an ambiguity to be interpreted by the user. This thesis proposes that the staging of the creative workplace should focus on expanding affordances within space and promoting a malleability within the soft structures of architecture. In addition, the current trajectory of labour practices, transitional work and urban initiatives promote an intense form of activity, productivity and lack of presence that we can begin to discern a different sort of theatrical effect.³⁶

"[R]esearch suggests that freelance and/or creative self-employment, typical of that found in the wider gig economy, has a number of psychologically harmful components...This type of work suffers not only from a precarity of finances but also a precarity of status, certainty, and sociality."³⁷



Mental Health Study of Precarious Employment Conditions

Info source: *Can Music Make You Sick? Musicians Mental Health*

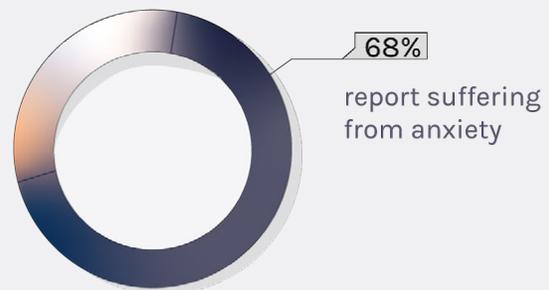
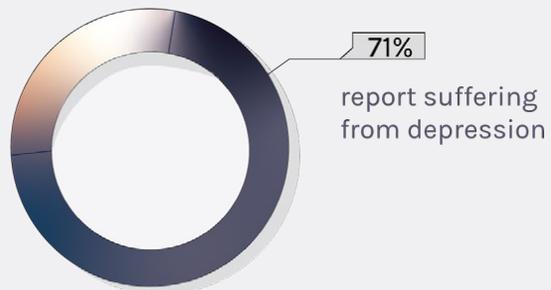


Fig. 40 | Labour conditions info-graphic

Mental and Physical Health and the Workplace

According to the World Health Organization (WHO), "Mental health is defined as a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community."³⁸

In recent years, mental health problems in the workplace have been among the top concerns for organizations of varying sizes. In a survey done by Mental Health America (MHA) that included 17,000 workers of varying industries, over 35% answered they 'always'

miss 3–5 days a month because of workplace stress.³⁹ Through this, and many other research initiatives, there has been a push to put a price tag to this debilitating phenomenon, one of these examples being the return on investment analysis report created by PwC on “creating a mentally healthy workplace.”⁴⁰ In this report, the cost of mental health problems in the workplace as the sum of costs of absenteeism, presenteeism and compensation claims, was measured and showed that per year, employers in a single developed country loses on average \$11 billion - \$4.7 billion in absenteeism, \$6.1 billion in presenteeism and \$146 million in compensation claims.⁴¹ This is crucial as the argument for poor workplace design, or poor management methods can no longer be attributed to lack of economic resource. It is clear that in order to retain happy, healthy and

productive employees, employers must begin to put employee well-being at the forefront of operations. Within this thesis, it is clear that as research continued, this topic became more than just an architectural question, as new health, economic, social and political challenges and complexities continued to arise.

It has been established throughout research that building occupants prefer natural over artificial light, windows within their work space and, views of nature over urban views of built forms.⁴² These preferences are directly tied to mental health. Data from a WHO survey suggested that inadequate daylighting or bad window views increased the probability of depression by 60% and 40%.⁴³ Although some of the above preferences are not always possible while designing, it is clear that a major influence on mental health in the workplace relies on a

connection to natural light, supporting individual circadian rhythms, which has a positive effect on mental, as well as physical health. Studies have shown health benefits of quality building lighting, while prolonged exposure to cool white fluorescent lights at the wrong time of day may induce circadian dysrhythmia.⁴⁴ Quality lighting with natural views has also been linked to reduced stress, decreased anxiety, and improved mood.⁴⁵

This area of the thesis points to the clear need in the modern workplace to focus on the detriment of ill mental health in the workplace, and how design as well as management structures can all play roles in the improvement of the health and well-being of many that need to spend the majority of their days in a certain prescribed space. The challenge with this research of course is the regulation of mental

health and how to create a reliable, unobtrusive measurement of employee mental health in the future, in order to further innovate effective interventions at an organizational level.⁴⁶

Tensions of Time

It is impossible to separate the creative worker from time. Inevitably, it is impossible to separate any individual from their relationship with time. Within the growing global competition of today's society, and the growing creativity prerequisite, there is inherent duality. Creativity is a quite fluid, and often unorganized production of novel ideas, that remains mystical in creation, and quantification. Whereas, time is a commodity that must be regulated and managed efficiently within the context of the workplace, and often time management is a key indicator of competitive edge in organizations.⁴⁷

"We are all slaves to time. It commands us, measures us, acts as a parameter for success or celebration, forces us to plan, to organize, and to arrange. And yet we talk of giving it, sharing it, saving it, spending it as though it is somehow ours to control and dispense with as we wish."⁴⁸

Within this section of the text, the production of space, and its temporal conceptions will be conceived as both a mental and physical model. This is included in order to address how the creative worker throughout history has had varied individual control over time, and how architecture in the creative process can stretch and condense perceptions of time.

In parallel, the architecture of workplace and its strong ties to physical evolution overtime will be analyzed. This section aims to study the strong connection between creative work and time, arguing that the temporal is still rarely included in the design of the built spaces where many now spend the majority of their lives, in the workspace.⁴⁹

"The perception and experience of time are among the most central aspects of how any group functions. When people differ in their experience of time, tremendous communication and relationship problems typically emerge. Consider how anxious or irritated we get when someone is late, when we feel our time has been wasted, when we feel that we did not get enough 'air time' to make our point, when we feel 'out of phase' with someone, someone is taking up too much of our time, or when we can never get our subordinate to do things on time or to show up at the right time."⁵⁰

Schein illustrates how an individual's control over time, or lack of control, may influence anxiety levels within an individual, and how the onset of these mental states may leave traces of instability, or unhappiness in other daily affairs. One study completed in 2009 of 186 undergraduate students from three Greek Universities over three weeks demonstrated that members of workgroups that produced low-creativity projects experienced higher time pressure than those who participated in high-

creativity projects.⁵¹ The conclusions from the study highlighted that perceived time pressure seems to be detrimental to creativity, and that it is plausible that the feeling of having control over one's time (i.e. perceived control of time) can correlate to positive creativity measures.⁵² This study helps to reiterate one of the thesis' arguments, the proposition that creativity has strong connections with positive personal well-being and autonomy within spatial and managerial structures.

This leads to further assessment. The concept of autonomy has been prized in contemporary society, however, it has also been demonstrated to be a method by which employers may take advantage of employees, as has been seen in companies within Silicon Valley. In the case of Silicon Valley, most start-ups do not cohere to a rigid temporal structure

in the context of a set number of hours worked daily and weekly, but this is replaced by a project deadline, where both the autonomy granted at work and the need to prove one's performance has become how workers are coerced into managing themselves, a situation that results in limitless time schedules.⁵³ This is an important observation of how many companies may structure themselves in the future, and the vast implications that can arise with this.

Human physiology, and evolution primarily outdoors has, in response, created a need for varying perceptible changes in surroundings over time⁵⁴, to maintain alertness. With this knowledge, it is further questioned through this research: can architectural interventions support, and optimize, stimulating conditions for a range of work ethics and time preferences within the built environment of the workplace?

"Our indoor environments are largely devoid of sensory change, and deliberately so. Buildings are kept at constant temperatures and ventilation rates, the light from overhead fluorescent lights is the same day in and day out, the furnishings and colors in the environment remain constant."⁵⁵

As Cutright et al. note through previous research conducted by architects and psychologists at the University of Oregon, it was indicated that by introducing perceptible sensory stimulation into indoor environments in the form of weather generated movement, aspects such as water flowing, or branches are seen moving across a window in the breeze, can effectively help to maintain alertness by keeping the individual engaged with the present.⁵⁶ Could sensory change, or select sensory deprivations, further stretch the boundaries of perceived time whilst performing creative work? Perhaps time, creativity and built form have connections with one another that are just beginning to be

understood, and the serendipitous interactions between these concepts can expand the possibilities of space and maintaining periods of deep work. Time's complexity, both in built form and within the process of creative work is included as time is a major influence on both the creative process and the overall culture of work, due to its commodification.

In the work of *The Human Condition*, Hannah Arendt wrote that there are two realms that humans exist within and that human life she proposed, is a rhythmic balance between exhaustion and regeneration. The realm of exhaustion resulting from labour or activity in the world, and the regeneration that regularly occurs within enclosed and shaded domesticity.⁵⁷ This idea of separate realms of exhaustion and regeneration brings spatiality to the daily cycles of life and time. As many find the hours

of the day continue to be stretched, it is clear that less time is devoted to the regeneration realm. The increasingly blurred boundary between the architecture of the workplace, and the architecture of the home, and the implementation of technologies that exist within both of these realms; continuously stretches society's concepts of work and non-work time. In the context of the workplace, this has some vast implications, that continue to weave into all facets of life, one of which is the implication that as we continue to work more, we are inevitably sleeping less.

It is common knowledge that sufficient sleep is necessary for good overall physical and mental health, as well as the quality of life.

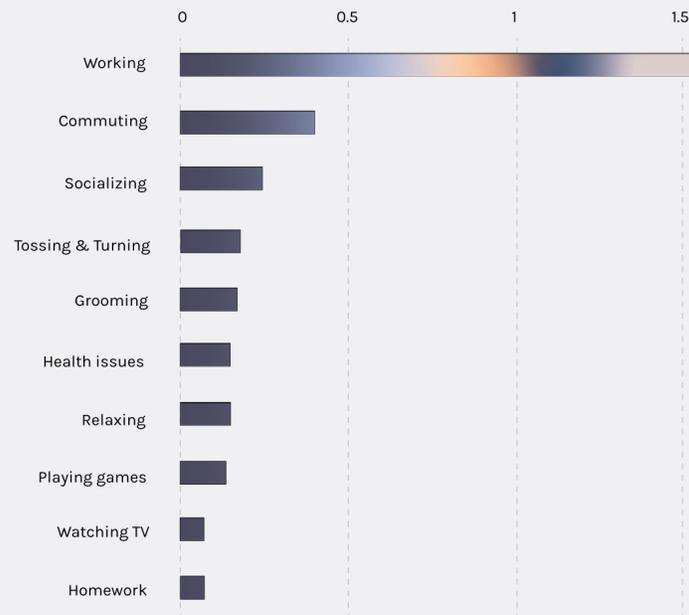


Fig. 41 | What are we doing when we aren't sleeping?

However, insufficient sleep is a pervasive and prominent problem in a modern 24-hour society.

“The average North American adult now sleeps approximately six and a half hours a night, an erosion from eight hours a generation ago, and ten hours in the early twentieth century.”⁵⁸

Figure 41 represents data from a study completed by the American Academy of Sleep Medicine that analyzed responses from 124,517

Americans between the ages of 15 years and older, between 2003 and 2011.⁵⁹ This data is fairly disturbing, as work represents significant hours of sleep that have been lost, however even more disturbing are the repercussions of this health-wise. The thought that the time lost sleeping, and replaced by working, could perhaps take time off of a life span is startling.

The U.S. Centre for Disease Control and Prevention describes sleep deprivation as a “public health epidemic” that is linked to various physical and mental disruptions such as depression, diabetes, cancer, and obesity.⁶⁰ This issue stretches beyond the architectural, but as work has been demonstrated to be a key driver of the issue, it is worth contemplating. The severity of this issue may continue to persist, negatively impacting the ways labour is performed and ultimately influencing broader

relations and interactions of society.

The realm of regeneration, in the context of sleep, continues to be researched, as discussed in Jonathan Crary's book *24/7*. Despite the harmful effects of sleep deprivation, there have been significant investments in sleepless research, meaning research geared toward the elimination of sleep.

"[Within the] Pentagon, scientists in various labs are conducting experimental trials of sleepless techniques... [T]he near-term goal is the development of methods to allow a combatant to go for a minimum of seven days without sleep, and in the longer-term perhaps double that time frame, while preserving high levels of mental and physical performance."⁶¹

As Crary notes, this research is currently meant to be used for the US Military. However, war-related innovations have throughout time filtered into the broader social sphere, which could perhaps bring a future where non-

sleep products could first become a high-end privilege, and then for many, eventually become a necessary way of life.⁶²

An additional consideration to this context of space and time is the creative process's ability to often lead to a state of flow, and a feeling of devoid time. The phenomenon has been extensively researched by the psychologist, Mihaly Csikszentmihalyi.

"The feeling of flow occurs when a person, in a state of utmost concentration and complete motivation, pursues an activity and reaches the limits of his or her capacity, without the challenge proving too great or too small... A high degree of skill, focus, and dedication must work in concert so that the actions required to perform the demanding task are completed as smoothly as possible. Such concentrated activity requires that time be disregarded; time flies by, as if it did not exist at all. Once work or play that has happened in a flow is over, one is surprised to find that it is already dark (or light) outside."⁶³

Flow is often experienced during moments of creativity, or during religious experiences, but it is not always present in these moments, or limited to these.⁶⁴

In Figure 42-45 individual biographical accounts of the creative process of multiple famous creative minds, as recorded by Mason Currey in his book *Daily Rituals: How Artists Work*, were analyzed through graphic representations to give examples of how the individual creative process can occur throughout all spectrums of the 24-hour clock.

Biographical Accounts of Creative Process
Spectrums of the 24-hour clock

Frank Lloyd Wright (1867-1959)

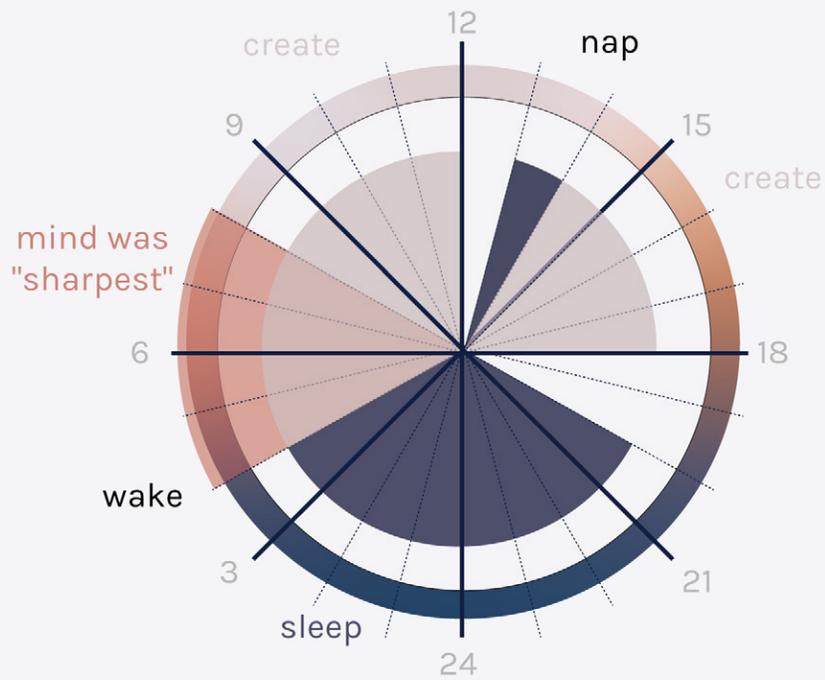


Fig. 42 | Spectrums of the 24-hour clock diagram, Frank Lloyd Wright

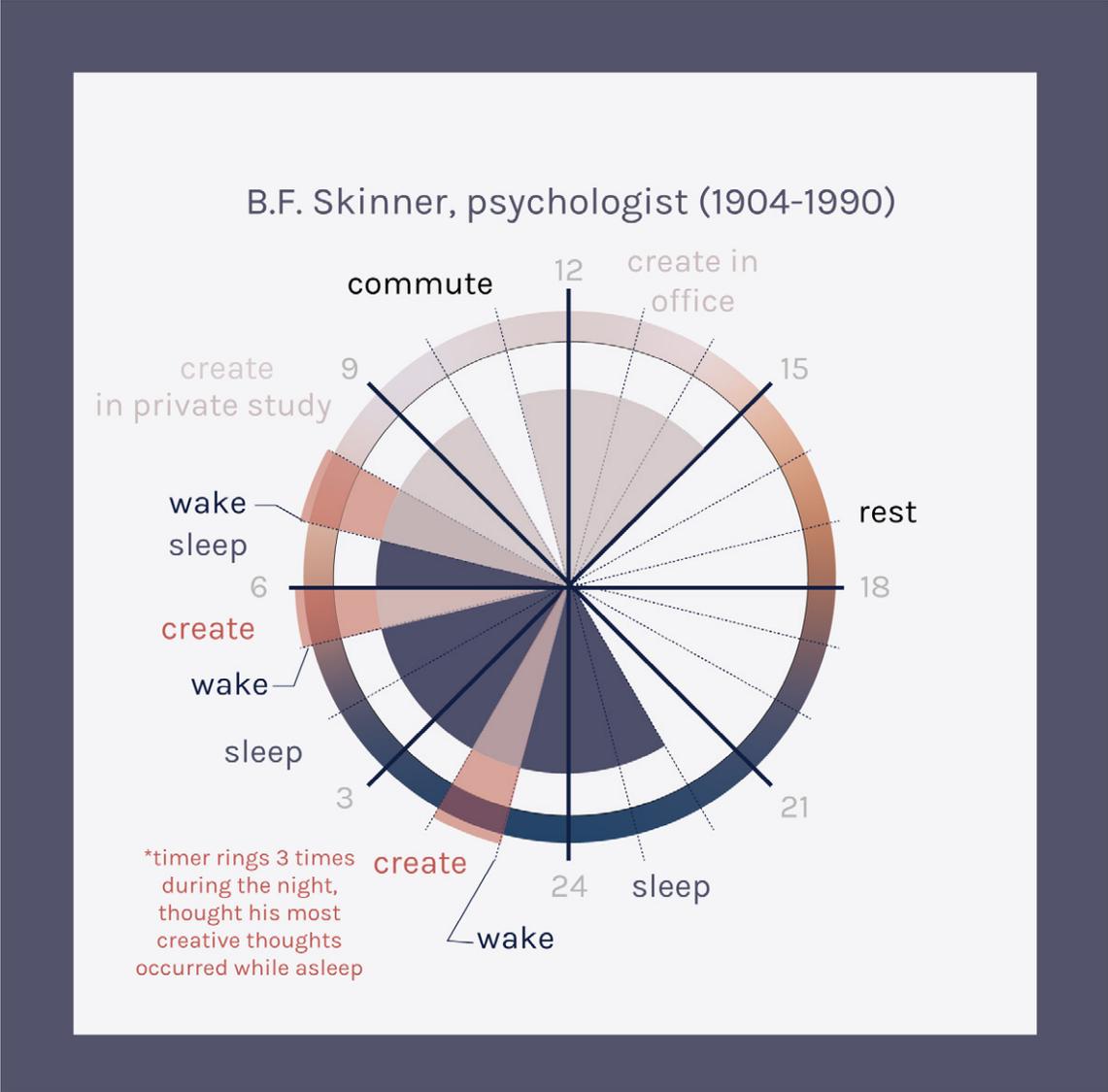


Fig. 43 | Spectrums of the 24-hour clock diagram, B.F. Skinner

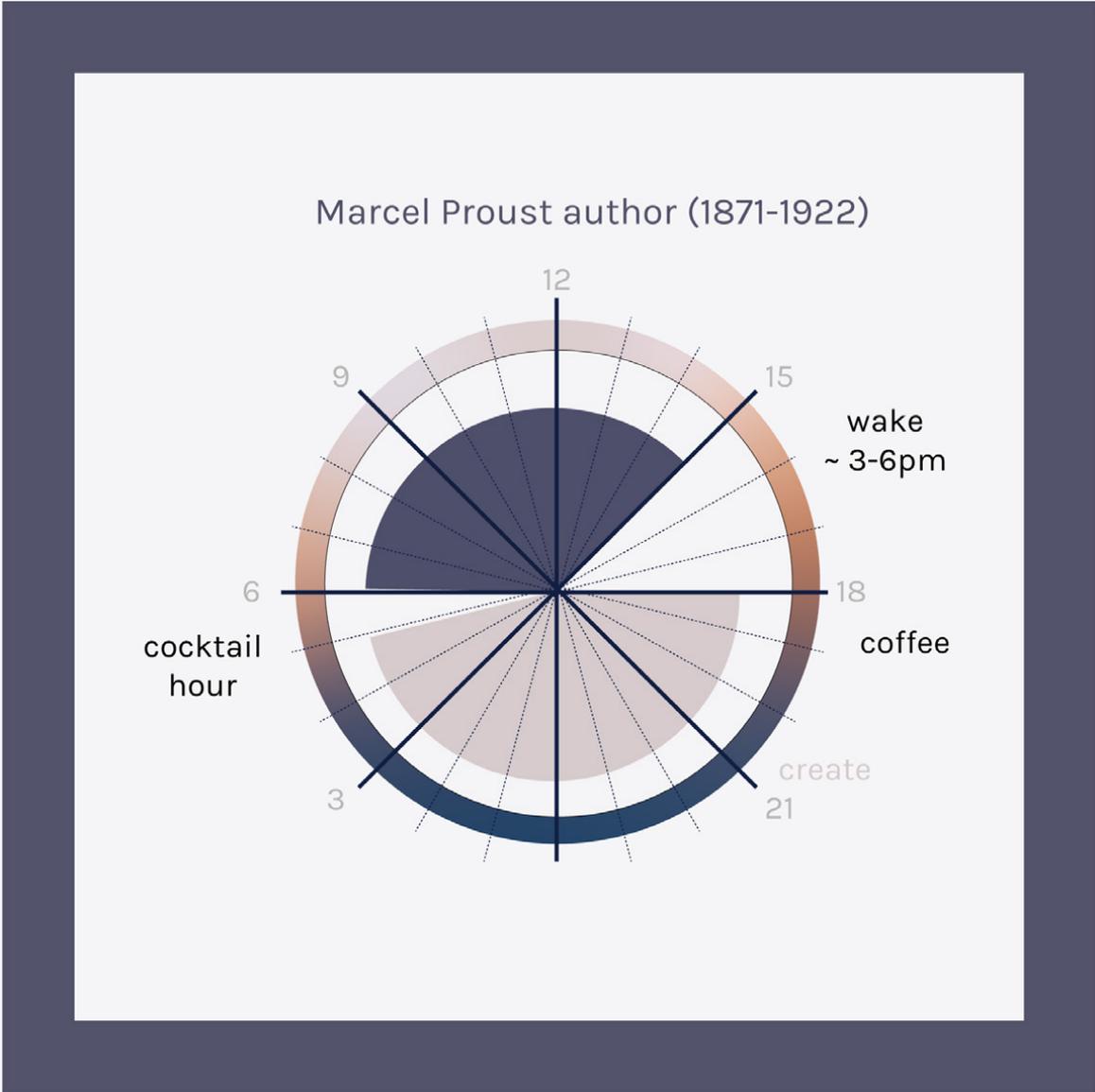


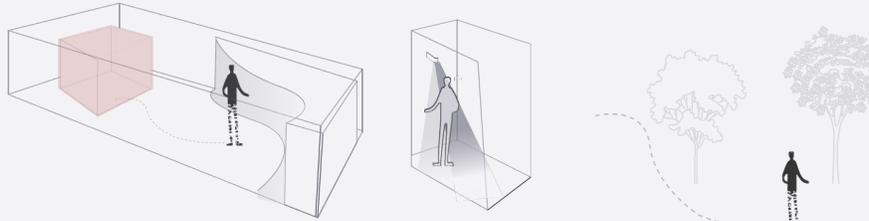
Fig. 44 | Spectrums of the 24-hour clock diagram, Marcel Proust

Spatiality of Biographical Accounts

Woody Allen, director, b. 1935

"I've found over the years that any momentary change stimulates a fresh burst of mental energy."

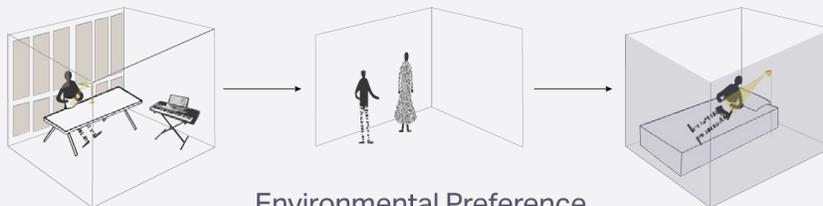
- Woody Allen, Daily Rituals



Environmental Preference

- going into different rooms
- showering (sometimes multiple times, for relaxation)
- time outside
- physical activity

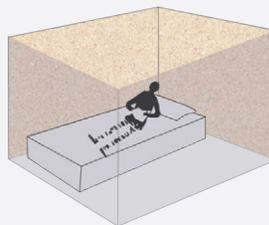
B.F. Skinner



Environmental Preference

- privacy in early morning
- ability to play instrument
- transitions to office to see others, (getting away "as soon as possible")
- making notes at night in bed

Marcel Proust



Environmental Preference

- writing exclusively in bed
- dimly lit room
- cork-lined walls and ceiling, silence
- devoid of sensory stimulation

Fig. 45 | Spatiality of creative process accounts

This section of the text was important to include as research persisted it became clear that time was a thread running through this research, and the matter of time involving many fundamental processes anchored in daily life.⁶⁵

The tension that exists between the cyclical aspects of everyday life - as well as that of the creative process - cycles of day/night, exhaustion/renewal and the linear aspects of time such as programmatic change and aging, ultimately bring uncertainty to architecture, and to life, that should be embraced.⁶⁶ Lefebvre argues that the everyday is subject to constant repetitions and cycles, but is also open to randomness and chance.⁶⁷

Part Three

Design

Architecture as Stage

Architects cannot write the play, or accurately predict the story of human life, but can only intentionally set the stage.¹ The final section of the thesis proposes further research through design. The use of varying design explorations aims to better understand traditional approaches to workplace design, as well as contrasting with the addition of smaller-scale architectural approaches. The objective of the design portion of the thesis is to question changes in contemporary society and pose disruptive propositions that hope to project alternate models of thought for the future workplace.

The proposed design for this thesis work is a creative co-working office building in the CityLife District of Milan, Italy. The building is designed to accommodate a wide range of visitors, made possible by a range of pay structures, providing subsidization to the workspaces within to help support the creative workers.

Milan was chosen for its distinct history as a creative hub, but also its history for unstable and underpaid employment in the creative sector. Milan is the Italian financial and economic hub and represents the core of the Italian knowledge-based creative, digital, and sharing economy, thus being the city hosting the largest number of co-working spaces in Italy.³

The design approach was explored by responding to an international design competition. The competition platform was

initiated by a website by the name of *UNI*, which is based in New Delhi, India, the website notes:

“UNI is a place for creative people to showcase their work along with the thought process behind it and have discussions around them. We want to tap people’s curiosity and observations to generate conversations and give constructive criticism on art, architecture, products, fashion and more...”⁴

The website acts as a crowd-sourced platform where organizations can upload design problems and provide grants for the winners, as chosen by a jury. The briefs are able to be responded to by both students as well as design professionals.

The competition that I chose to respond to, was named *Co-Design Milan*. The competition was discovered quite early into the thesis development and helped to assist the thesis by starting the design process early on, and giving a deadline to meet, pushed the project

production early in the year. The competition was chosen as the research lent itself very well to a few of the questions being asked within the competition brief. The competition was named: *Co-Design Milan* with the tagline: "by designers for designers." The competition stated that the land prices in the district are very high and that if the building designed were to be defunct before its physical death, due to societal obsolescence, how could the architecture be adaptable enough to support keeping the building relevant? The site itself embodies the question of obsolescence that the competition proposes. Until 1923, the land was used to carry out military exercises, it was later bought to host the annual trades fair at the *Fieramilano* which was then moved to the outskirts of the city. The site was then put up for an international tender won by the CityLife development, which called for



Fig. 46 | Aerial imagery of CityLife development from 2002-2018

the complete demolition of the twenty existing exhibition halls on the site.

I was fortunate to visit the site and experience the surrounding urban context of Milan that the CityLife development exists within. The district is a combination of residential, commercial and business buildings surrounded by the largest car-free area in Milan. The CityLife development covers 366,000 square meters of land. The first observations of the site I had were how large the three towers on the in the district really were, Google Earth did not do their height any justice. Being there in person, I found the pedestrian paths weaving themselves through the development quite beautiful, and successful with many users, and with a significant amount of landscaping design. The development did seem to be an odd composition, the three towers not speaking to each other architecturally, and were

out of the human scale of their surroundings. The three towers are inhabited by giant conglomerates of Allianz, Generali, and PwC. The buildings tower over you as you peer up from the sunken Piazza Tre Torri leading into the shopping centre designed by Zaha Hadid. On the other end of the development are residential towers designed by Zaha Hadid and Daniel Libeskind which begin to fit in with the surrounding city scale, however, the development itself did seem to be just for the consumer, or the business person. The others only briefly walked their dogs or laid in the grass. When I was visited one night the business towers closed for the day, and the shopping centre closed, a group of teenagers gathered around an ill-designed empty plaza space behind the Allianz building. It seemed as though citizens enjoyed using the surrounding parks, but there were no common spaces to

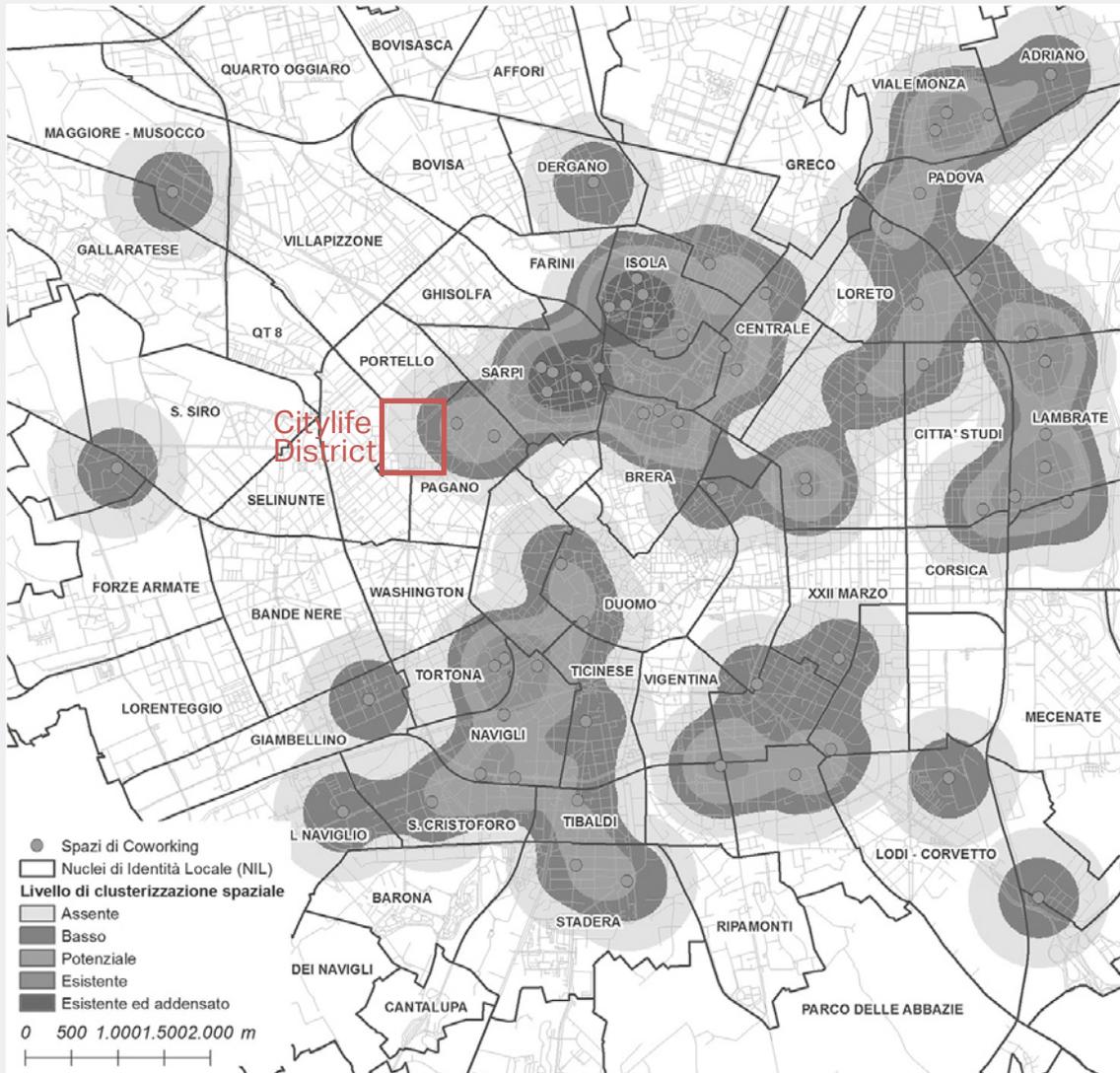


Fig. 47 | Density of co-working spaces in the city centre of Milan (recorded in 2015). CityLife district indicated.



Fig. 48 | Photos of CityLife District, Milan, Italy



Fig. 49 | Photos of CityLife District, Milan, Italy



Fig. 50 | Site plan

enjoy the development, other than cramming into the heavily populated, and loud, food court in the shopping centre, where I saw many high school students doing homework.

The thesis design work was submitted to the competition in order to bring awareness to the broader contextual aspects of the work environment and the co-working model, that were not addressed in the competition brief. The submitted project was meant to challenge the initial competition brief, the tagline: "By Designers for Designers" is put into consideration because, as the proposed project argues, if designers are designing for themselves, creating a new "creative hub" for themselves, is the model thus defunct from the beginning? The proposed design differs from the usual co-working model. The design is meant to be a work environment with an extremely

public presence. The building lifts itself up from the ground plane, creating a continuous public piazza that exists beneath the building, and weaves the public throughout designated public armatures throughout the floors within the building. By doing so, the building intends to be completely inclusive and creating opportunities for society to animate the “never closed” spaces. The goal of this is to encourage an inclusive environment that breaks down disciplinary silos. This model is formed on the idea that knowledge can come from anywhere, and that anyone has the ability to be creative, especially in the context of today’s complex world.

The building design looks toward a future society where technology has continued to change the nature of labour and production in the creative workplace. The project aims to question the balance of work versus leisure,

time and space. Addressing the ever-increasing creative sector, and its connection to extreme pressure, often discounted compensation in relation to time spent, and erratic work schedule, the building is proposed to become a central community hub where creative workers can find support, education, and leisure. The building is proposed to represent a safe co-working space where freelancers and small businesses are able to come to and support well-being, work ethic and improve possible feelings of burn-out, by connecting with one another, while learning and giving back to the community. The model looks to support and reconnect creative individuals during a time of uncertainty.

By using research into the psychology of the creative process, the design looks to better understand the link, and impact, of spatial conditions on the creative process. The

competition submission made connections between the creative stages, as defined by Graham Wallas in his creative phase model and uses theatrical terminologies to spatialize process. Through this approach, the architecture is situated in a state that hovers between permanence and impermanence, similar to that of theatrical production where the setting of the actions depends on the spatial context and its transformations. These terms are translated into a gradient of space, in order to build from the Wallas model, proposing that the creative process is much more fluid than what a four-stage model originally suggests, and that process is dynamic but does boast traits from the Wallas model.

Through the design, it is proposed that each stage of the creative process has something of importance to the next stage.



Fig. 51 | Site connection diagrams

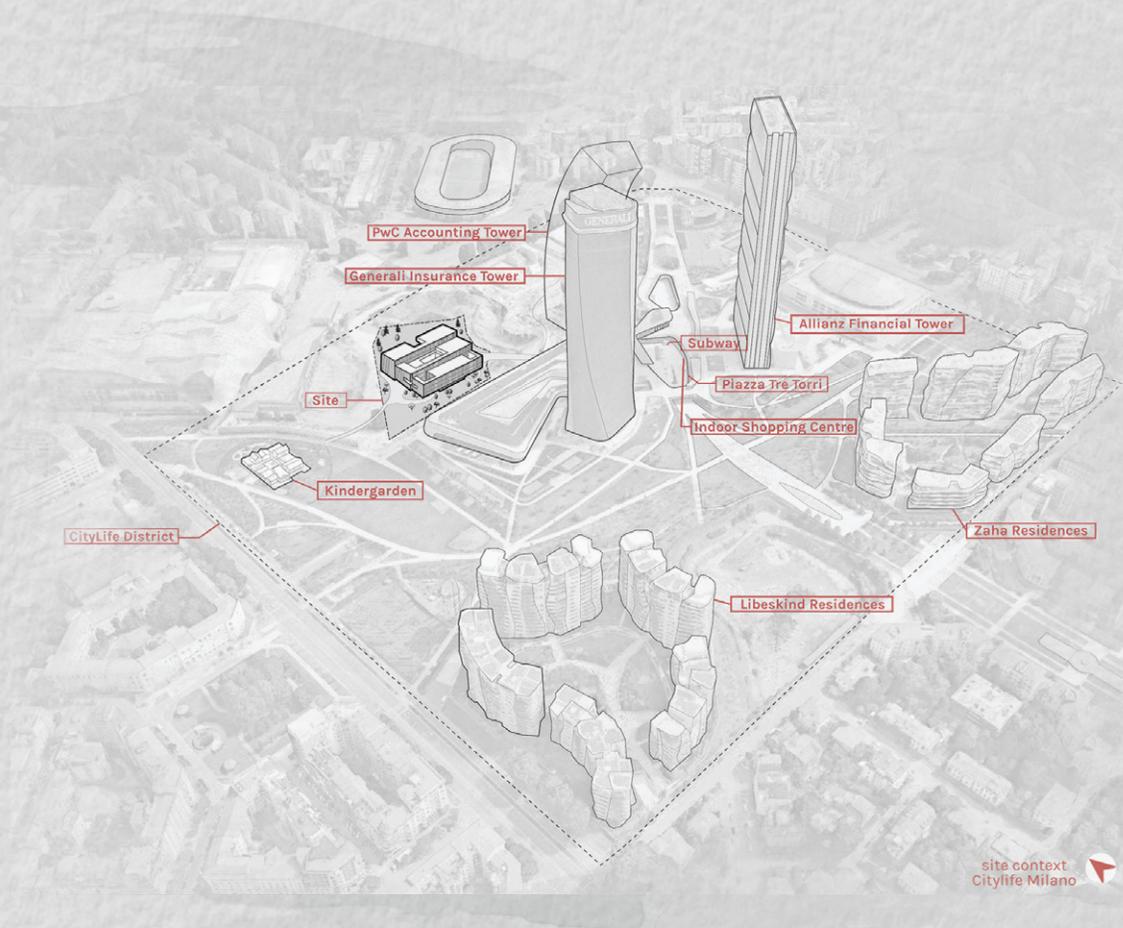


Fig. 52 | Aerial isometric site view

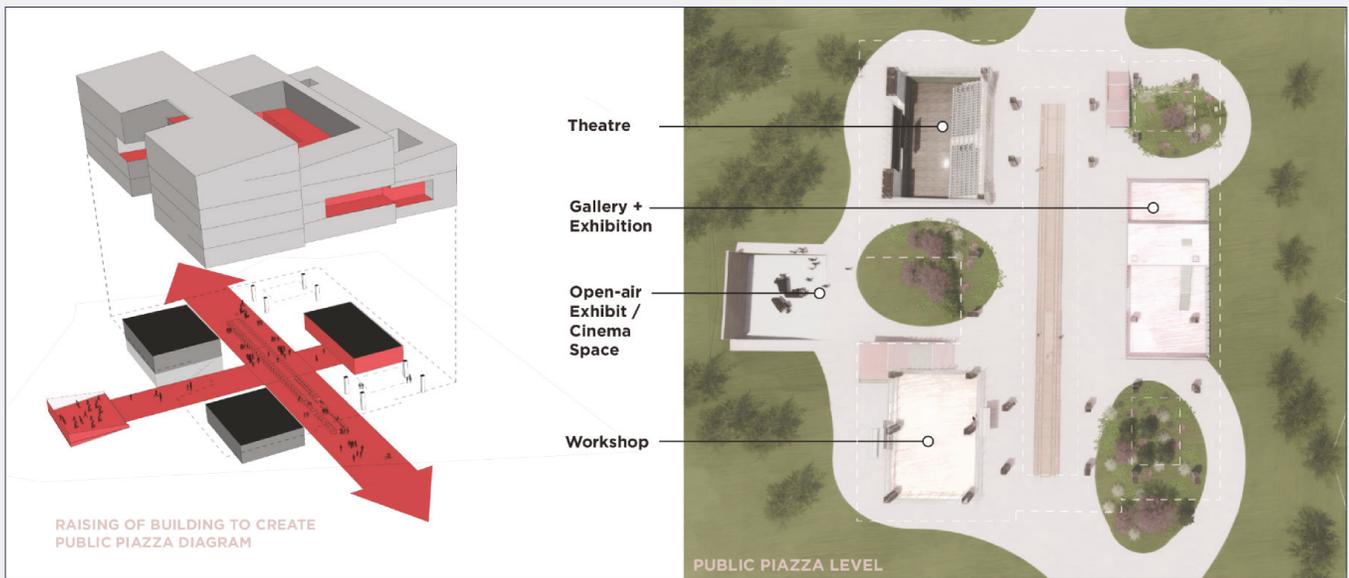


Fig. 53 | Proposed design ground level conditions

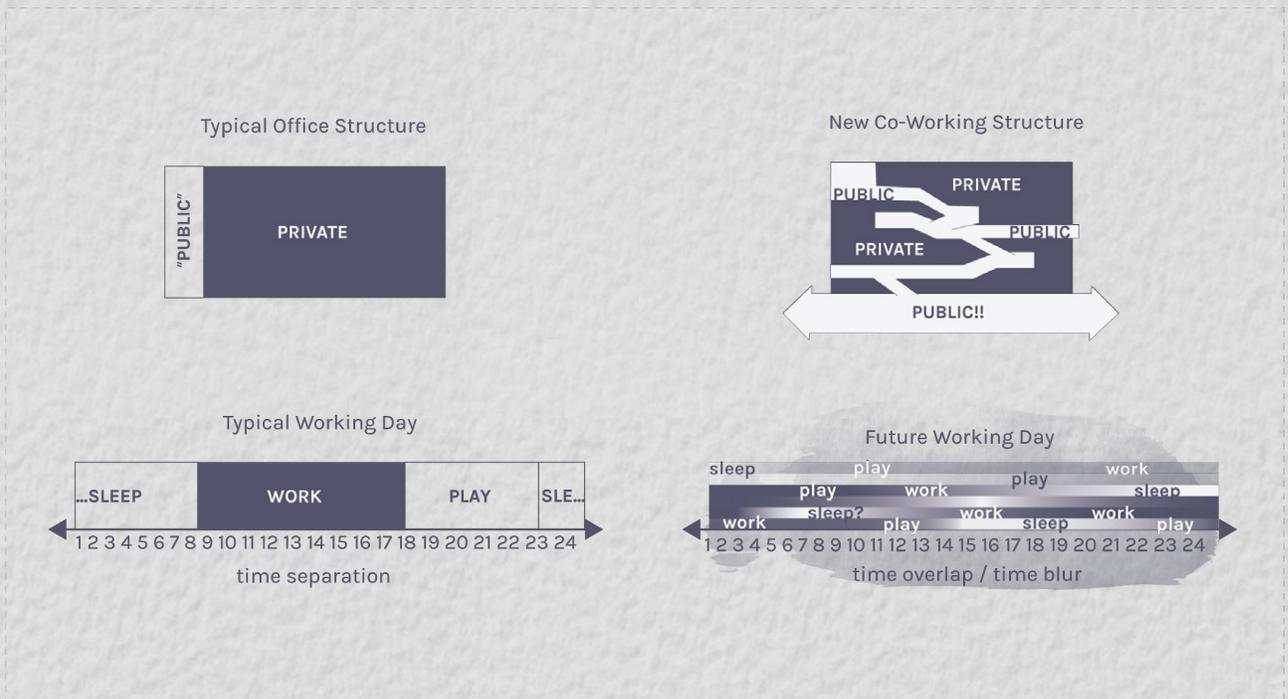


Fig. 54 | Parti diagram

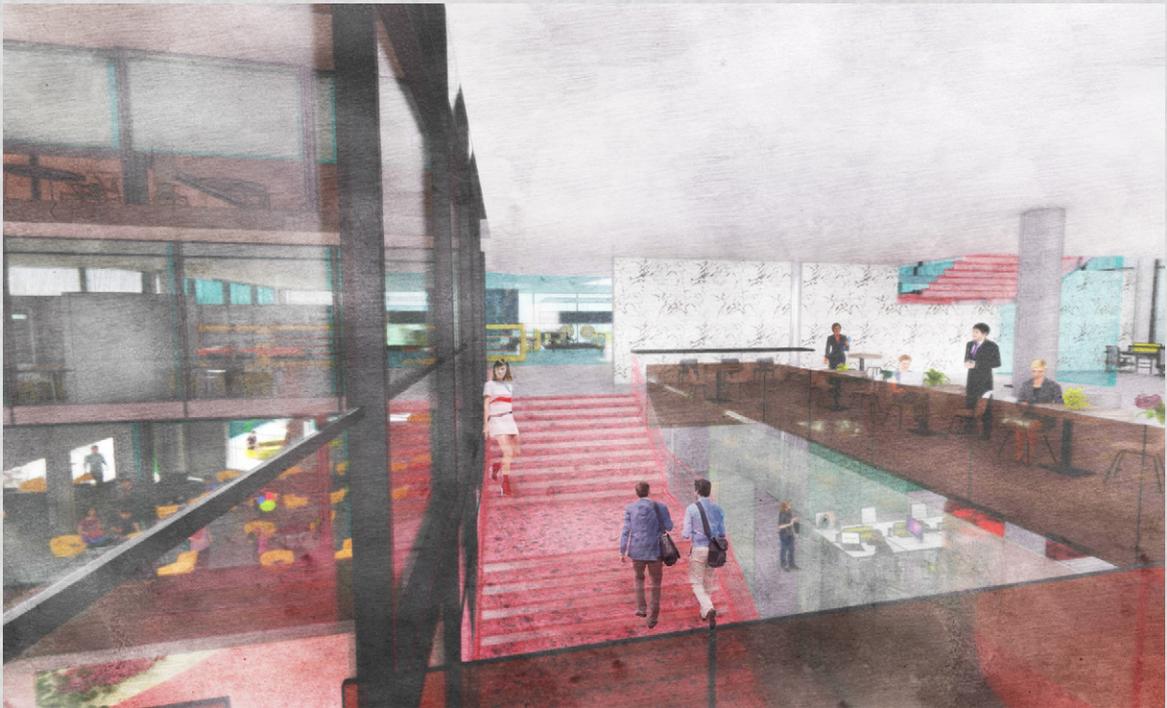


Fig. 55 | View of public armature

"Our modern age thus bears the contradictory traces of cultural disruptions, of nationalistic conflicts, of a new global interconnectedness and interdependence. These forces have shaped the modern city and in turn, shaped the modern workplace. Though many organizations still inhabit a 19th-century mindset about the office and work, we see the new workplace as an evolving microcosm of the city, since it has become a complex organism which mirrors both the city's shaping forces and its visual and psychological effects."²

that we design and build will always promote certain values and thoughts about how the spaces that we design and build will always promote certain values and socio-economic ideas.

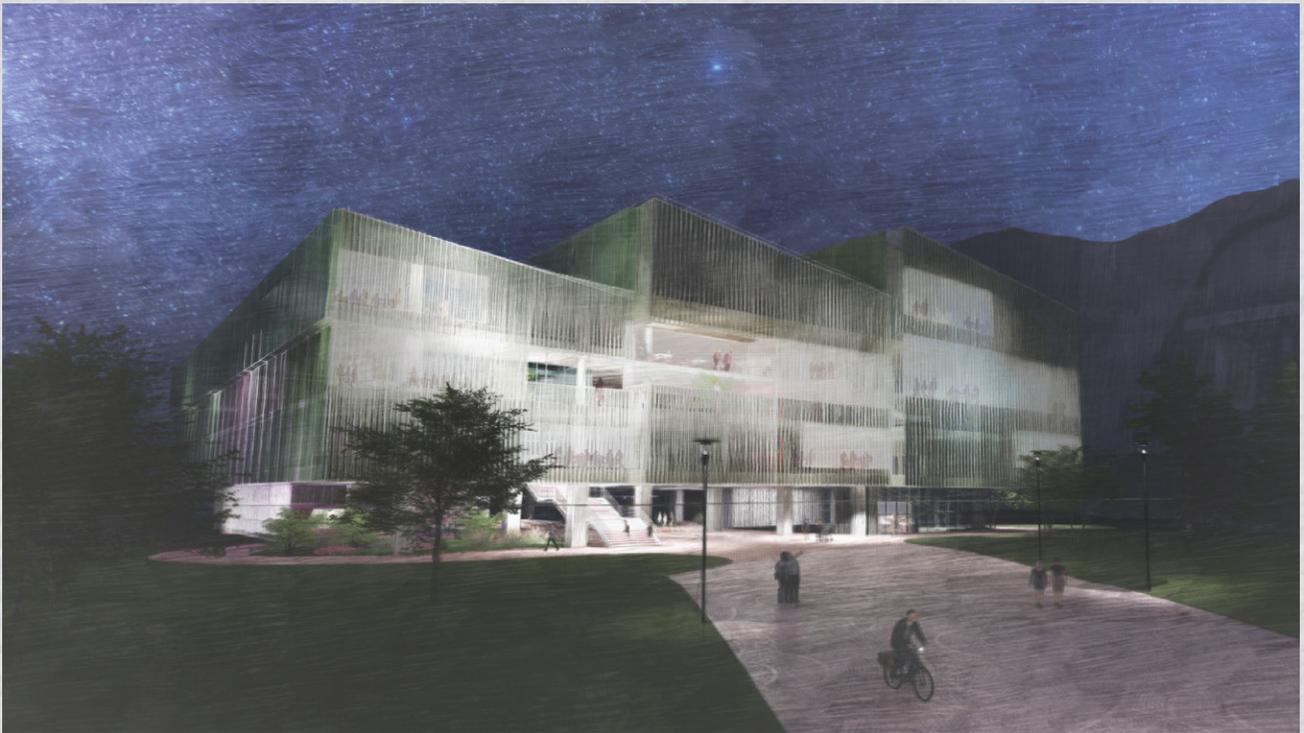


Fig. 56 | Exterior night view of co-working design

The design proposes that workspaces are designed to support certain attributes that come with each stage of the creative process. For instance, within the “think” spaces, or behind the scenes, there would be areas for deep work that are private and quiet, and dark secluded spaces for times when the creative person may be in a state of flow, and then also include a high concentration of meeting and public areas, where the individual is able to meet with others and gain knowledge about the problem at hand. The “disrupt”, or interlude spaces, are designed to assist in the incubation stage and freedom of time for the creative worker, spaces such as meditation and yoga rooms, fitness studios, gardens, and a private hot shower rooms, in order to give the creative user freedom to distance themselves from the work, while subconsciously working on the problem at

hand. The “play” spaces are intended to support the breakthrough of ideas by opportunities of making/working through an idea. These spaces would be flexible to house traditional desk workspaces, and also workshops and artist studios that assist in bringing ideas into physical conception. Finally, the last areas would be the “display”, or stage, which is needed in order for the creative practitioner to exhibit and display ideas and creations in order to get feedback and confirmation of the original idea. This range of spaces could be anywhere from a gallery space, to a traditional boardroom, to a theatre or dance studio. An important aspect of the initial design is the fact that the “stages” flow into one another sometimes physically and other times visually. Users are thus able to watch and engage with one another at different stages of the creative process, where they see fit, and this is intended

to provide stimuli to enrich creative endeavors.

The first iteration also aimed to question how the model of office space, and, that of the “co-working” model currently exists. Through touring current co-working spaces that exist in Milan, it was clear that these co-working models were isolated from the public. The proposed design suggests that ideas are able to come from anyone and that the public is invited to partake in certain spaces of the building to enrich creative dialogue within the community and the co-working model.

“...the salaried worker is assigned to specific and definite workplaces; [whereas] the freelancer’s place of work is inseparable from their body. Lacking any prescribed routine or mandatory protocol, the freelancer needs to plan their time, space, tasks, and deadlines while maintaining a solid psychological attitude, productivity habits, training competencies, and social relations. Freelancers succumb to a whole micro-physics of power that incorporates their subjectivities not only into the activity but also into the places in which they engage with other people. The problem for the freelancer is no longer how to plan the world outside — since there is no longer

any outside to be planned — but how to design themselves and how to deal with the way the world constantly redesigns them.”⁵

This statement reiterates the way that many freelancers experience time and space differently than the previous mentality of a nine to five employment. The instances of remote working and freelance workers continue to rise, and the co-working model can become a framework that supports the nomadic situation that many individuals face.

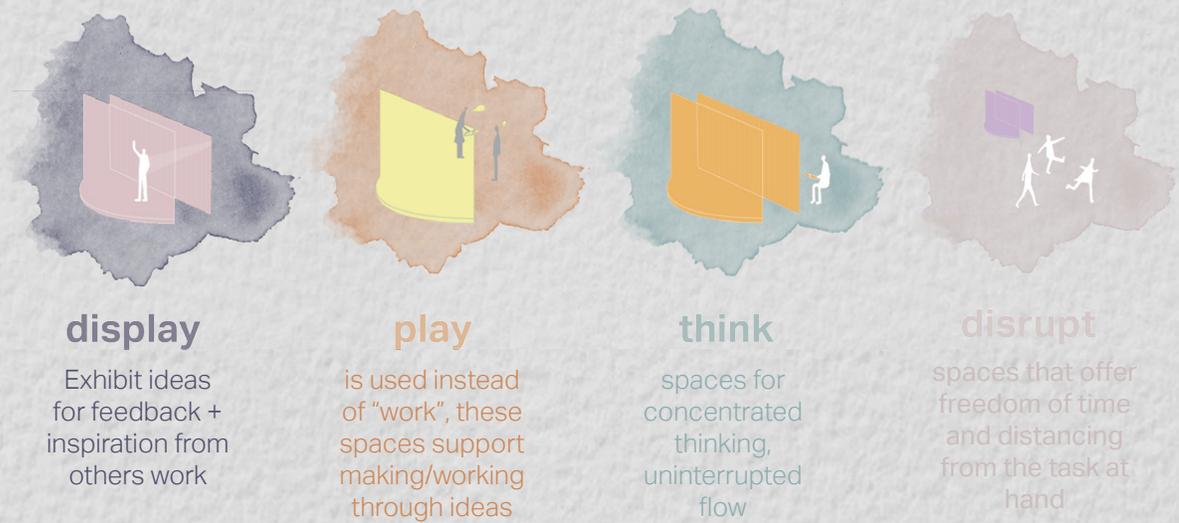
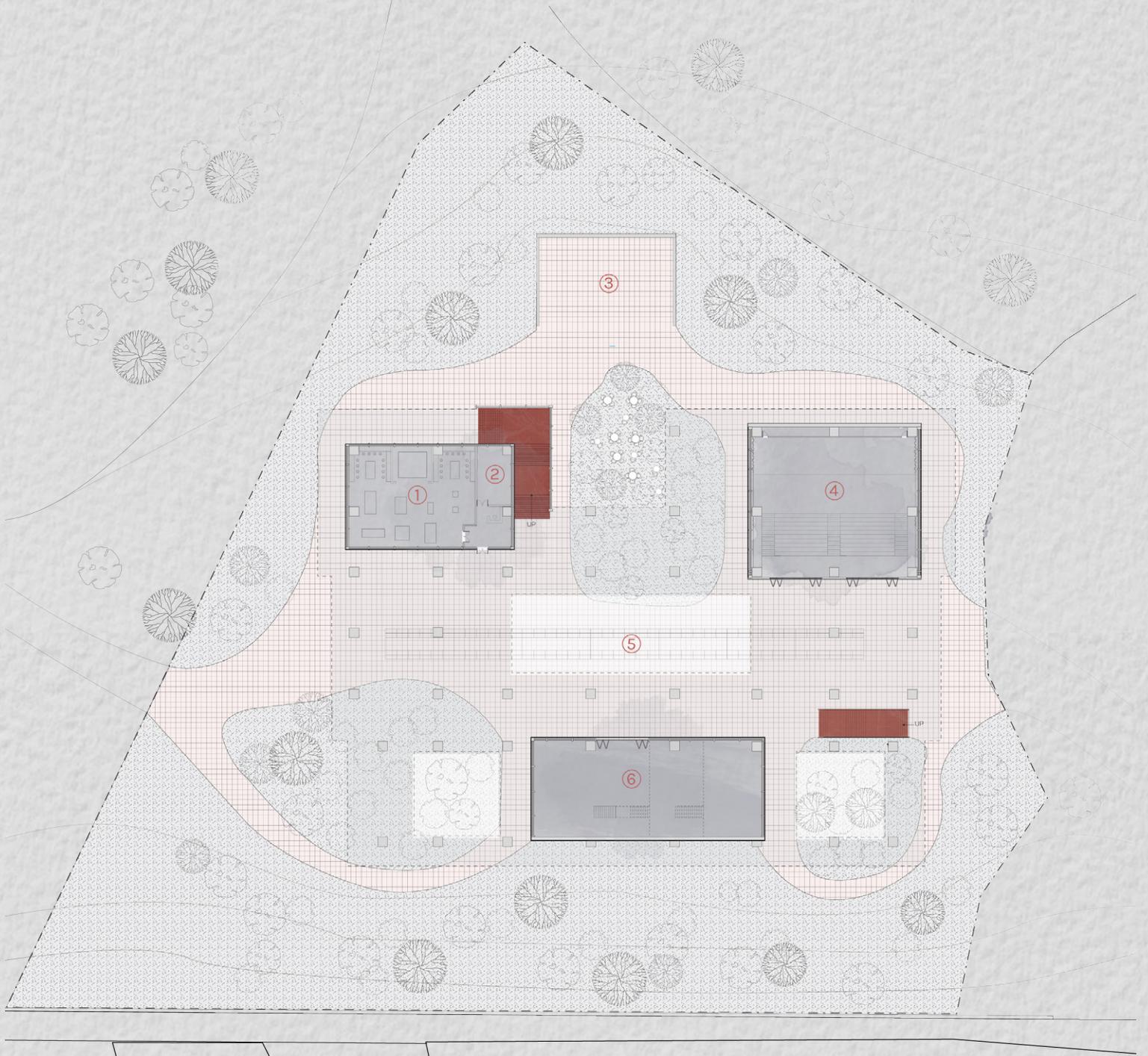


Fig. 57 | Blurring of boundaries, design diagram

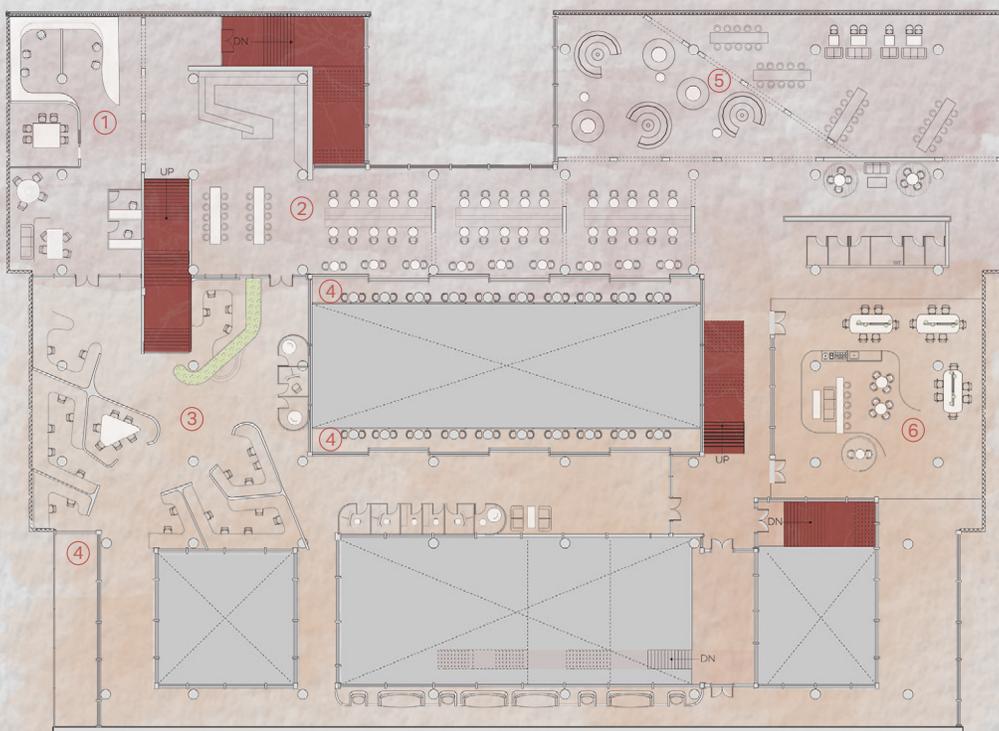
To support individual work patterns, a wide variety of spaces are provided, in order to give users of the space the control to define their own creative moment, and transition through space as they see fit.



0 Fig. 58 | Ground plan

- ① workshop
- ② tool rental
- ③ open-air cinema / exhibit
- ④ forum
- ⑤ operable platforms
- ⑥ exhibition space

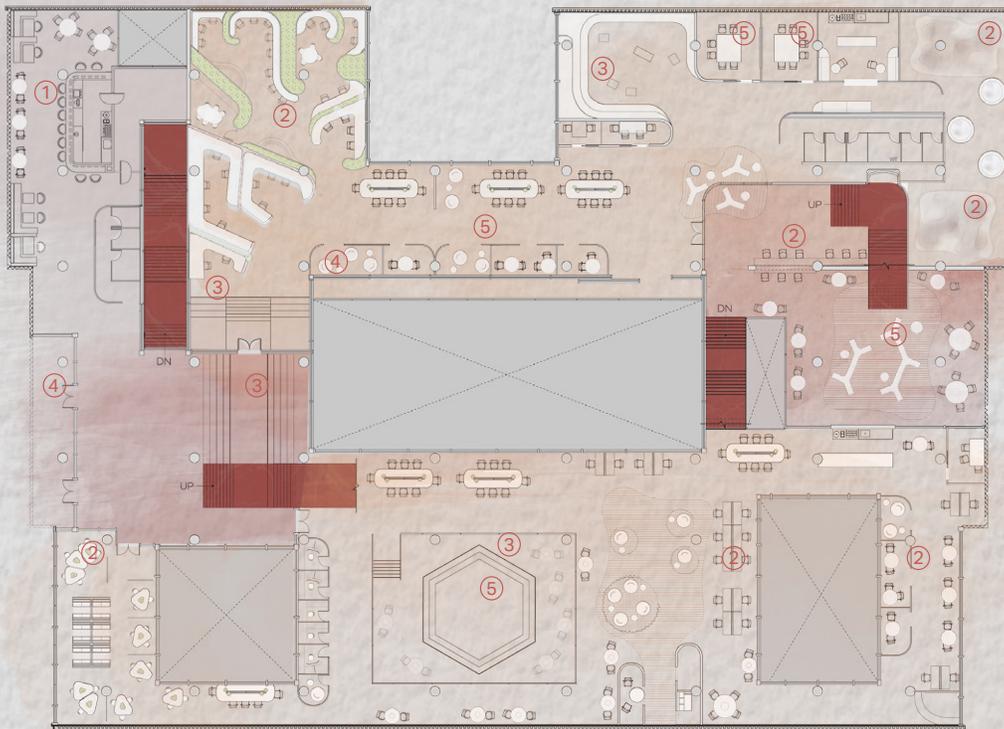
1 5 10 20m
scale 1:700



1 Fig. 59 | First floor plan

- ① admin
- ② cafe
- ③ play stations
- ④ ext. patio
- ⑤ public play station
- ⑥ municipal satellite office

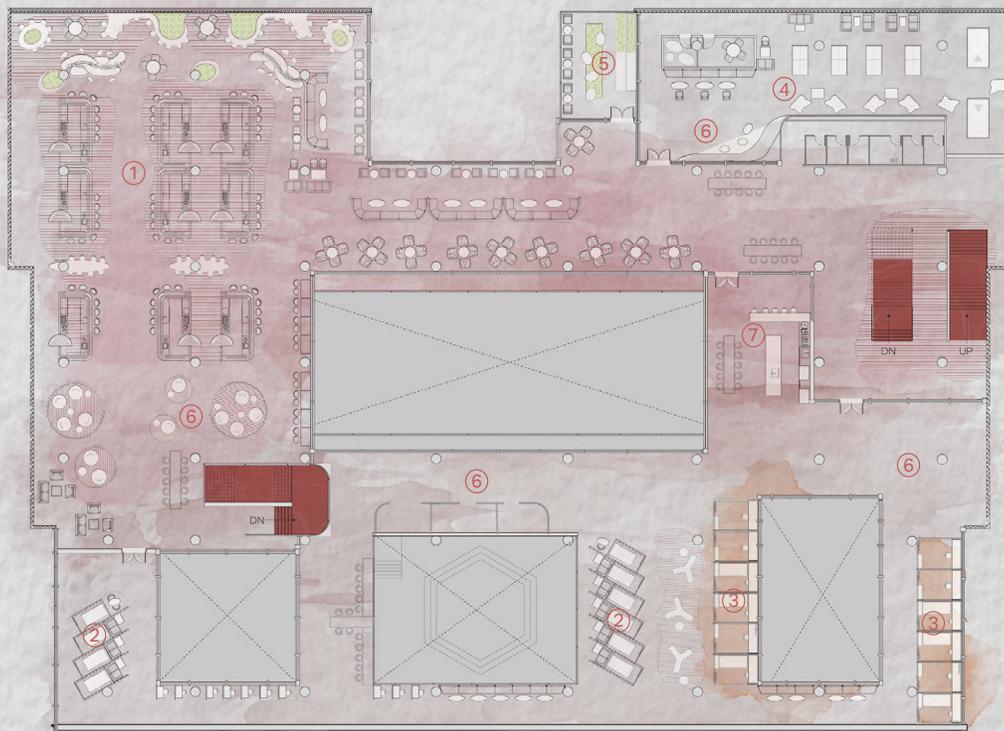
1 5 10 20m
scale 1:600



2 Fig. 60 | Second floor plan

- ① bar
- ② "play" stations
- ③ amphitheatre seating
- ④ exterior patio
- ⑤ meeting

1 5 10 20m
scale 1:600



3 Fig. 61 | Third floor plan

- ① dining
- ② sleep pods
- ③ control cube
- ④ game space
- ⑤ exterior patio
- ⑥ lounge area
- ⑦ shared kitchen

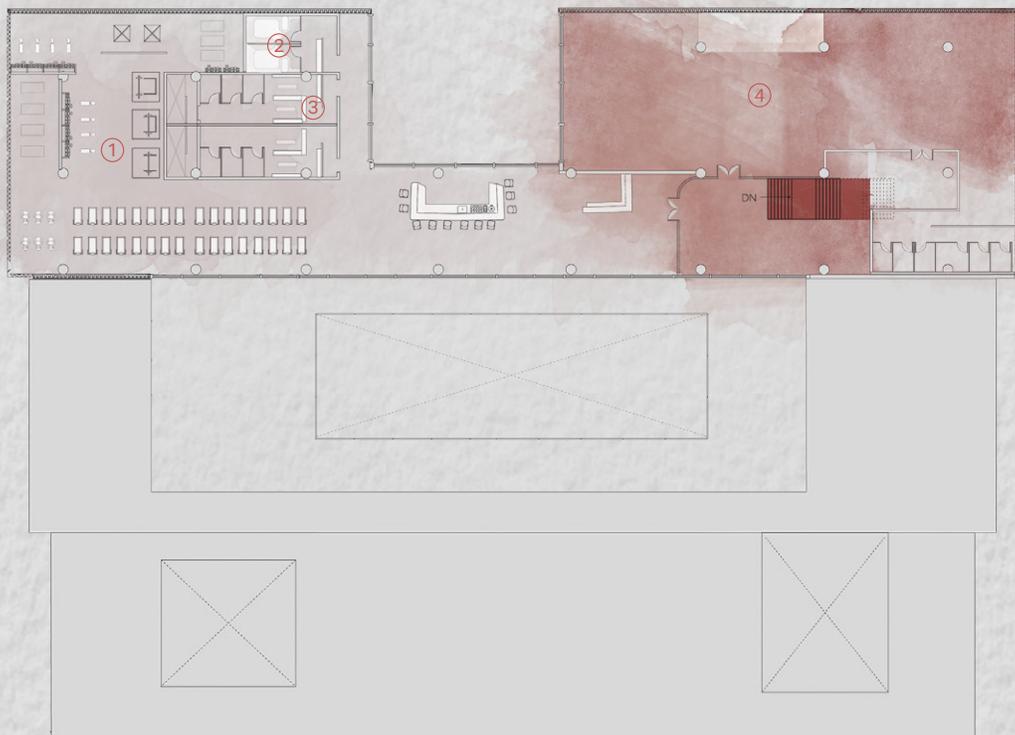
1 5 10 20m
scale 1:600



4 Fig. 62 | Fourth floor plan

- ① floatation therapy
- ② flow zone
- ③ fitness/yoga
- ④ rooftop gardens
- ⑤ think tunnel
- ⑥ yin and yang private shower room

1 5 10 20m
scale 1:600



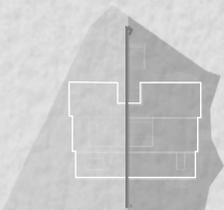
5 Fig. 63 | Fifth floor plan

- ① fitness area ④ event space
- ② saunas
- ③ changerooms

1 5 10 20m
scale 1:600



Fig. 64 | Section perspective



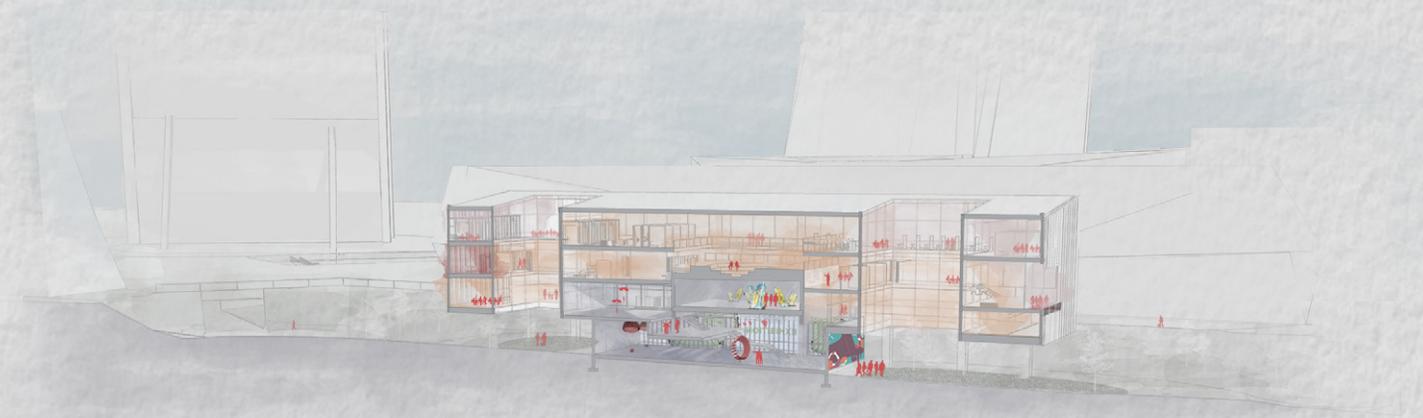
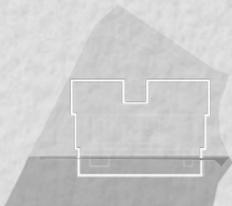


Fig. 65 | Section perspective



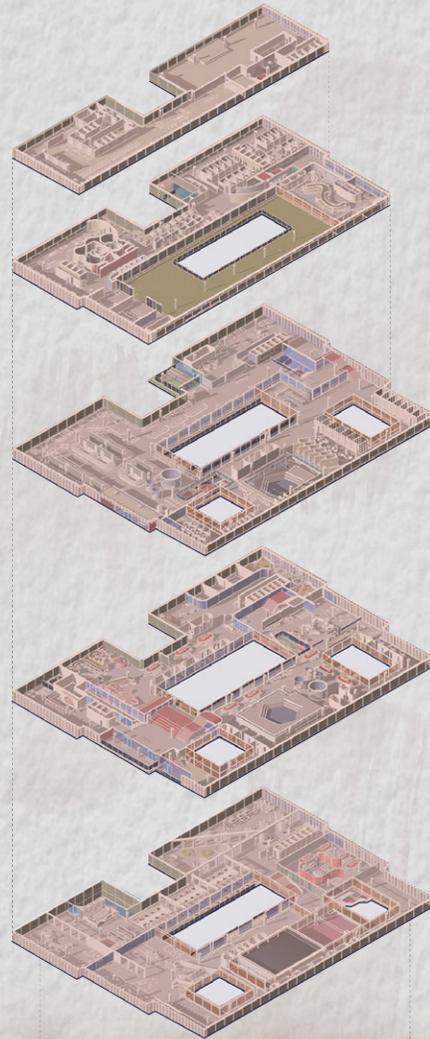


Fig. 66 | Exploded Isometric

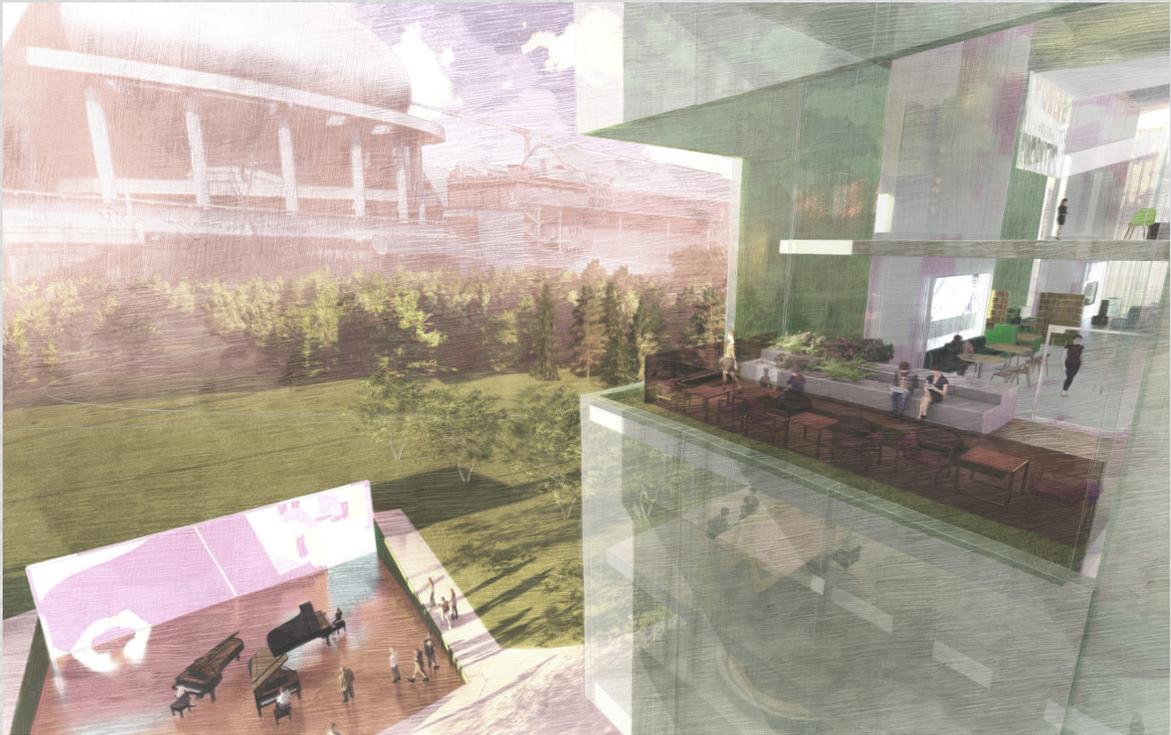
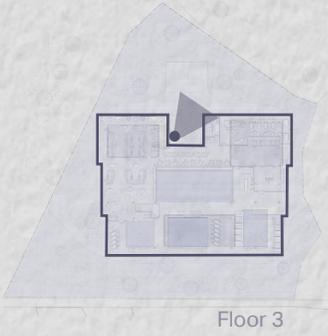


Fig. 67 | Annual event, *Piano City* taking place in multi-use exterior space



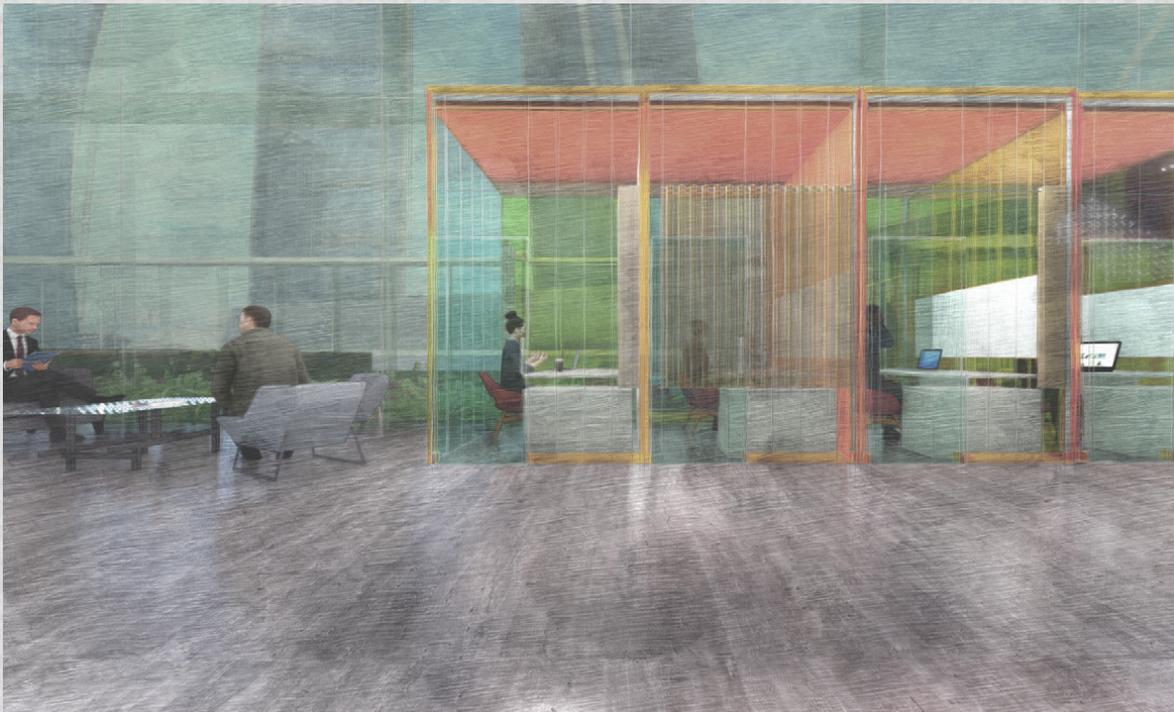


Fig. 68 | Interior view

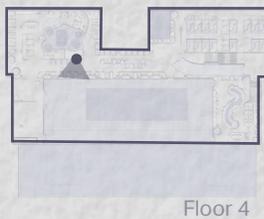
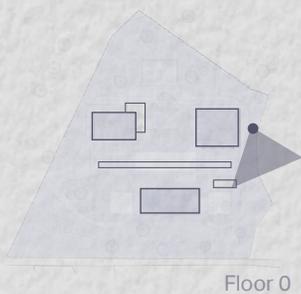




Fig. 69 | Exterior view showing connection to CityLife Shopping Centre.



Floor 0

Display.

Display

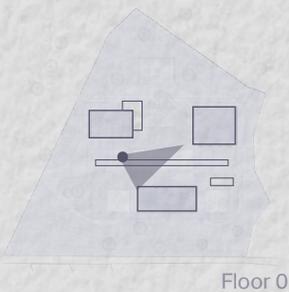
The four themes within the program will be explained throughout these four segments of the thesis work. The design of the co-working space is meant to create a range of spaces where people can connect, discuss, and work together. It is a place where people can see, and be seen, participating in the activities they do, to inspire one another. The gallery space at the ground level is a place that would allow for new and the unknown events to happen, a reprogrammable space. It is a place that surrounds us with inspiring resources and knowledge, educational media, and rotating displays and exhibitions

spreading throughout.

The main armature of the building is meant to cut through the building in different ways, bringing people to flow pass different facilities to be inspired by what others are doing. The openness of some of the meeting spaces is meant to bring people together, and allows for interaction with one another, outside of the typical work area. The displaying of ideas, information and bodies of work within the workspace is important to solidify a sense of community, as well as celebrate and motivate.



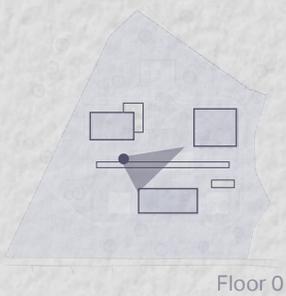
Fig. 70 | Day view of public way



Floor 0



Fig. 71 | Night view of public platform during fashion display



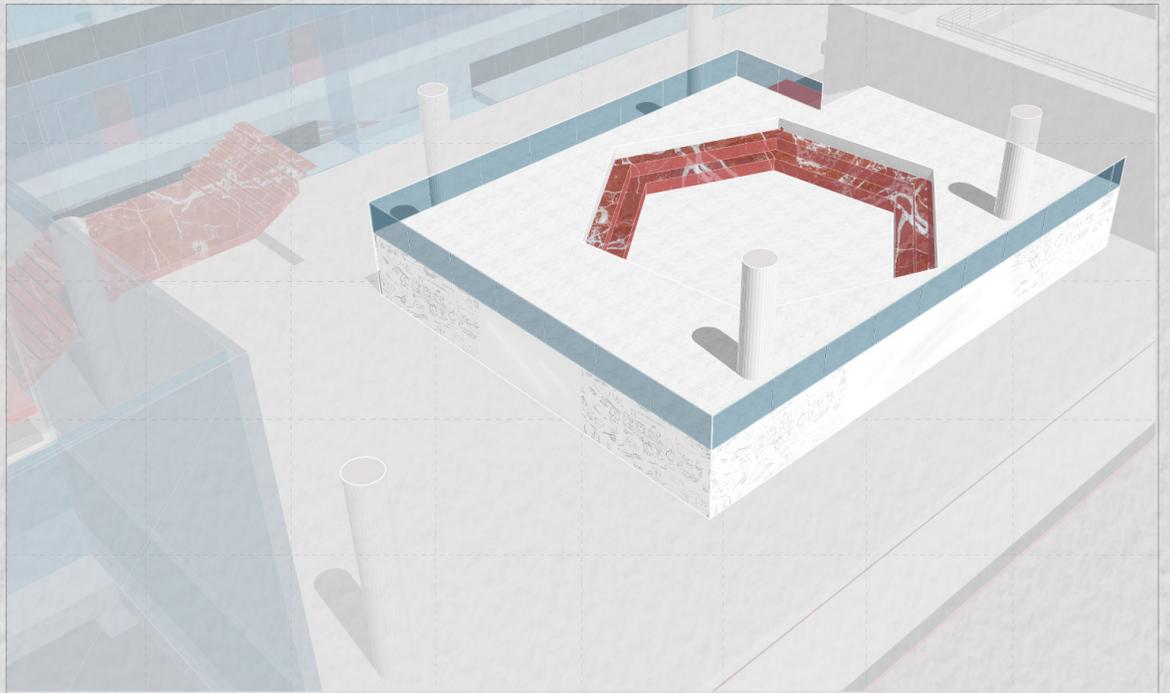
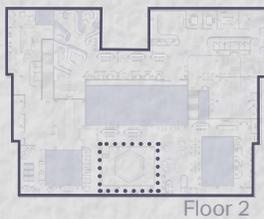


Fig. 72 | Multi-function informal meeting



Floor 2

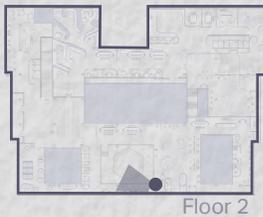


Fig. 73 | Meeting area





Fig. 74 | Idea discussion



Play.

Play

“...In a world where creative thinking is essential to survival, serious play is the gym workout for maintaining creative health.”⁶ Within this section, the term “work” will be replaced with “play”. Instead of using common terminology, of work and workplace within this area of the text, it is proposed that by using the word “play” the connection that is often tied to work, and production will be replaced with play and creativity. Asserting a clear differentiation between productivity and creativity is important as often “creative” spaces that are written about and researched are discussing an individual’s

productivity measurements within a space rather than creativity. The quantification of creativity is a notoriously challenging phenomenon. However, the interchangeable nature of which the terms productivity and creativity have been used in media and even research studies is a notable challenge to creative work. Creativity and productivity are not interchangeable concepts, as they are often not dependent on one another. As Angela McRobbie notes in her article within *Critique of Creativity*: "Within a framework of [contemporary govern-mentality] the new self is defined as primarily productive and creative, the two become inseparable with the latter compensating for the exhaustive dynamics of the former."⁷ By using the term "play" instead of "work" is to free the creative worker from normalized work conditions and environments, and re-write what creative space

and the spatial acumen of creativity that may reshape itself in the future. Psychologist Mihaly Csikszentmihalyi, stated "The most typical kind of flow experience is play... The working out of creative ideas also involves analogous experiences, In fact, almost any description of the creative experience (e.g., Dillon 1972; Getzels and Csikszentmihalyi 1974; Ghiselin 1952; Montmasson 1932) gives experiential accounts which are in important respects analogous with those obtained from people at play."⁸

The "Control Cube" (figure 83-84) is a space that plays on the original cubicle concept, but with a completely different context than the original. The cubicle has grown to become an object of extreme dismay within office environments in recent history. This spatial proposition proposes that perhaps the dismay towards the cubicle topology is out of a lack of

control over one's environment, and not due to the form itself. The control cube is thought to be a space where the user has complete control over their interior environment, playing on the form of the original cubicle, but creating a play environment where the user is able to change their surroundings, including temperature, perceived time of day/night and even simulating different exterior views through the use of embedded screens in the interior walls and ceiling.

The "Flow" Play Station (figure 85-87) demonstrates a way for team members, or individuals to work together, but separate. Providing closed and open meeting areas, surrounded by greenery to provide privacy as well as soothing views.

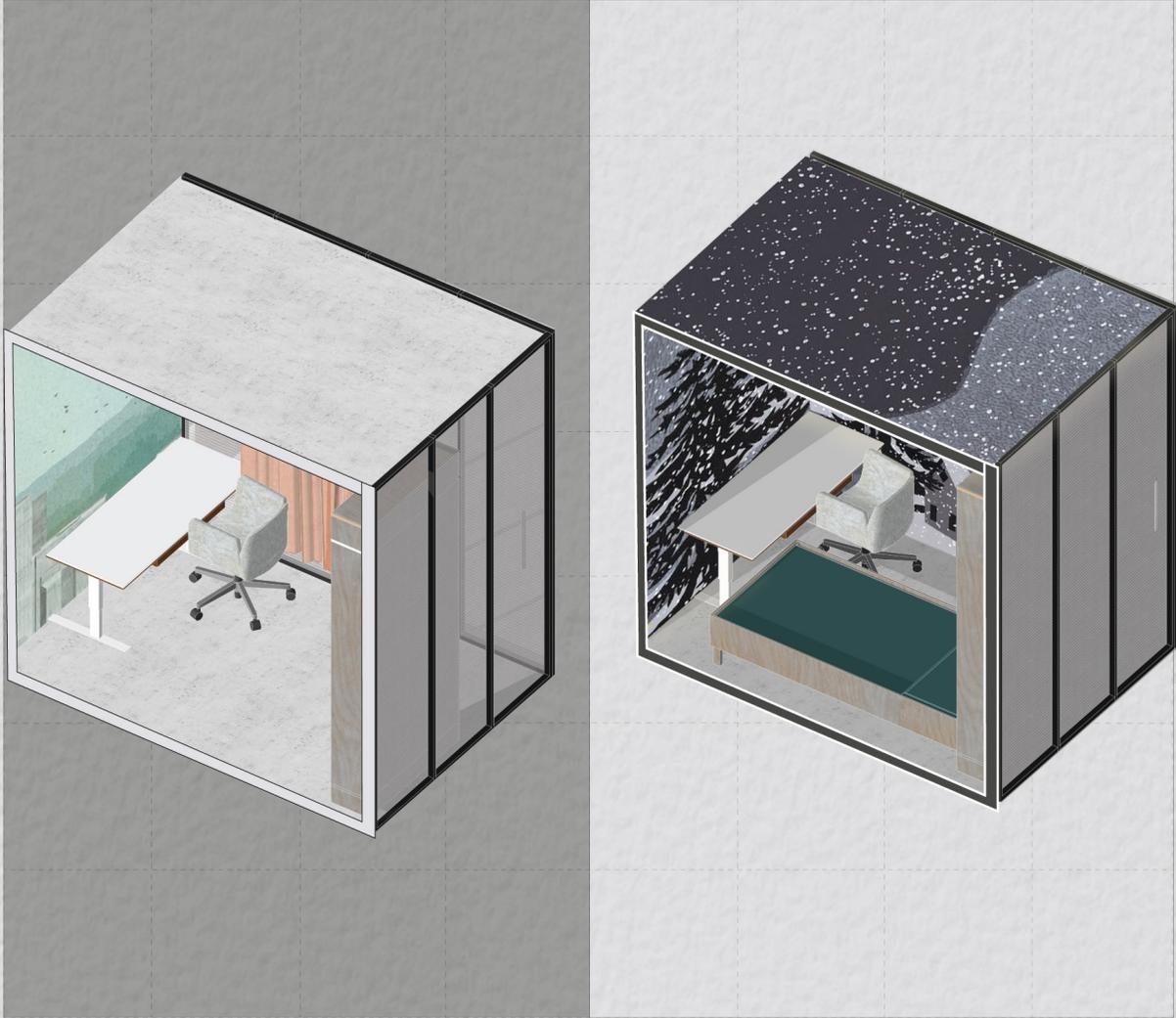
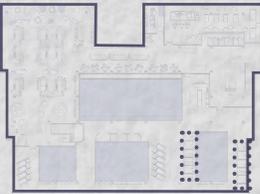


Fig. 75 | Adapted control cube



Floor 3

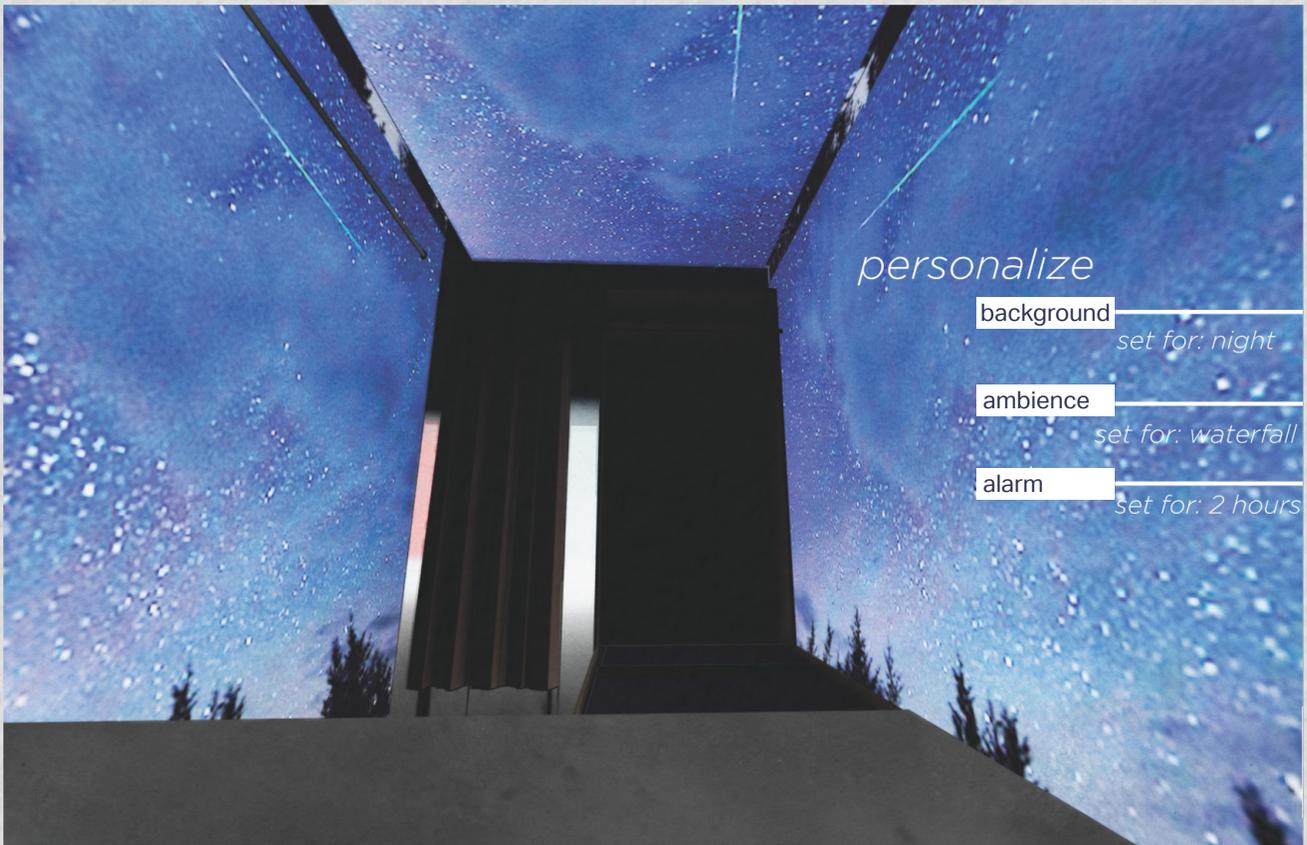
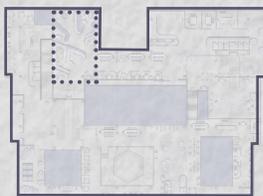


Fig. 76 | Simulated night environment in control cube



Fig. 77 | Flow, group play stations



Floor 2



Fig. 78 | Flow, group play stations





Fig. 79 | Flow, group play stations



Floor 2

Think

In the essay, *De Beata Architecture: Places for Thinking*, Marco Frascari writes of the lack of places dedicated to thinking within contemporary architecture and indicates a separation between creating architecture for economic growth and architecture with the ability to generate human happiness. Frascari argues for the creation of more spaces dedicated to “thinking”. He further states that,

“A place for thinking generates motions of thought and delineates a privileged area where these motions are amplified and inflected by novel configurations of ideas, things, and bodies. A place for thinking generates an intensive co-sensing, in emotionally dynamic terms, and it inaugurates the creative process because something in the surrounding built environment is compelling us to think; a development that is a coming across rather than being based on recognition.”⁹

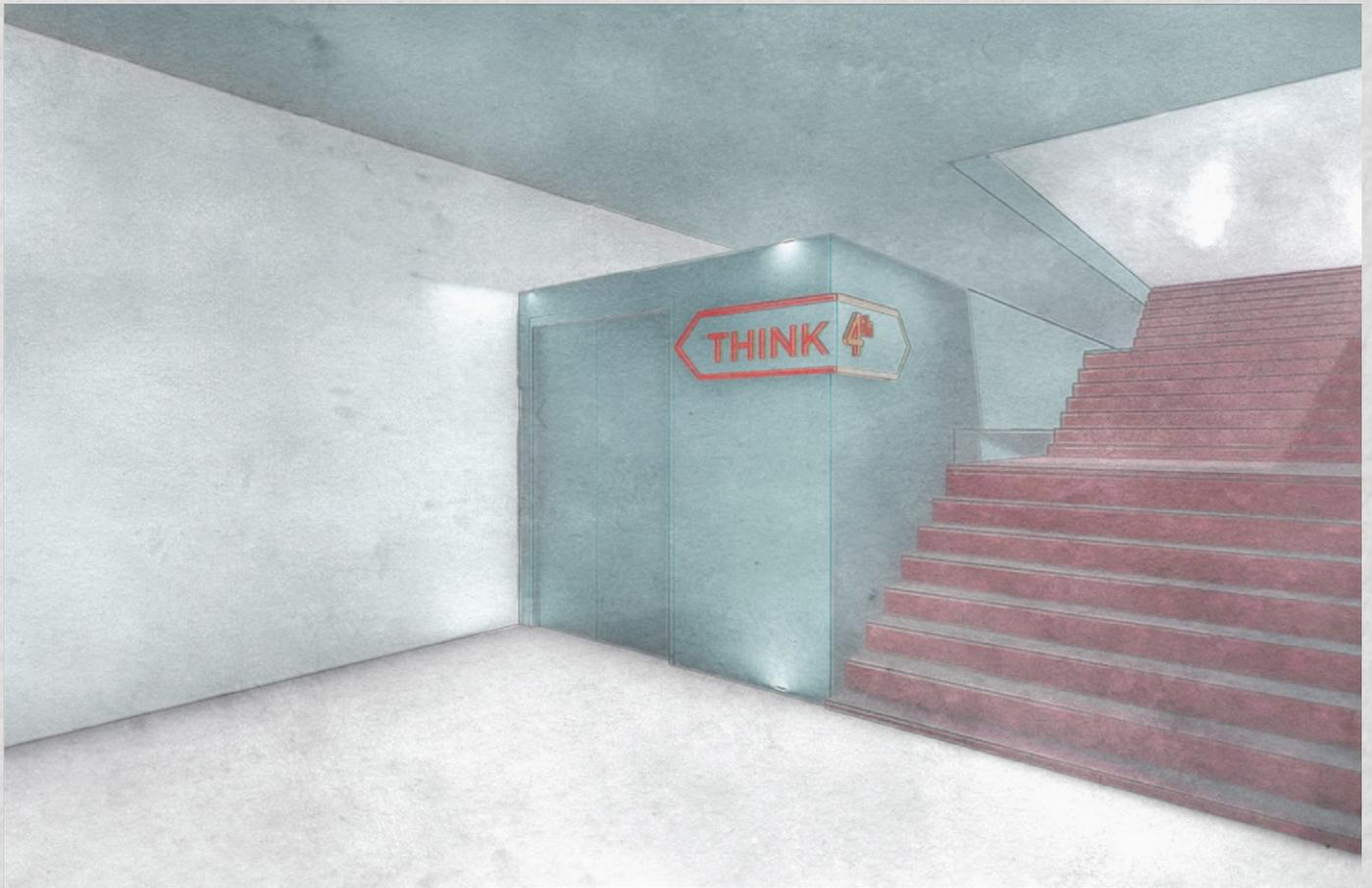
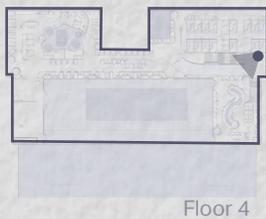


Fig. 80 | "Think Tunnel" entrance



The points made by Frascari are significant to this thesis, as he writes of thinking as development which depends on architectural features to facilitate processes. It seems now more than ever the connection between mind, body, and environment is trivial. In a world that continues to destabilize relations between exposure and protectiveness, agency and passivity, sleep and waking, and publicness and privacy, we have seen the rise of the 24/7 "attention economy".¹⁰ This leads to thinking that perhaps, now more than ever, it is crucial to use architecture as a guide to divide the sphere of work, in order to create a meaningful connection to the world that surrounds us. "Empirical evidence confirms that designs that connect humans to the lived experience enhance our overall sense of well-being, with positive and therapeutic consequences on

physiology.”¹¹ Within this section, multiple spatial propositions are put forward to address the question of presence in architecture in the future work environment. These spaces aim to create a sensorial connection to the surrounding environment, to promote presence in moment and time, and ultimately aid in personal well-being and positively support processes of deep thought.

The “Think Tunnel” (figures 88-90) space is the entry to the floor of the co-working design that is dedicated to deep thinking spaces. The use of the tunnel is to aid in mental reset, by providing a change in the senses. The entry to the tunnel changes acoustics, as the tunnel is lined with blue velour wall paneling, that buffers exterior sounds, and changes light refraction effect off of the walls. When walking through the tunnel, users may reach out and touch the

soft interior wall paneling and are able to sit in personal cubbies set into the wall, if further time to reset is needed. The curved ending of the tunnel provides the user upon entry no direct view to the exit door, in order to dismay any sense of urgency. The ceiling and floor are of a high gloss and thick metallic epoxy finish giving the illusion of being surrounded by water, playing with the senses upon entering and existing.

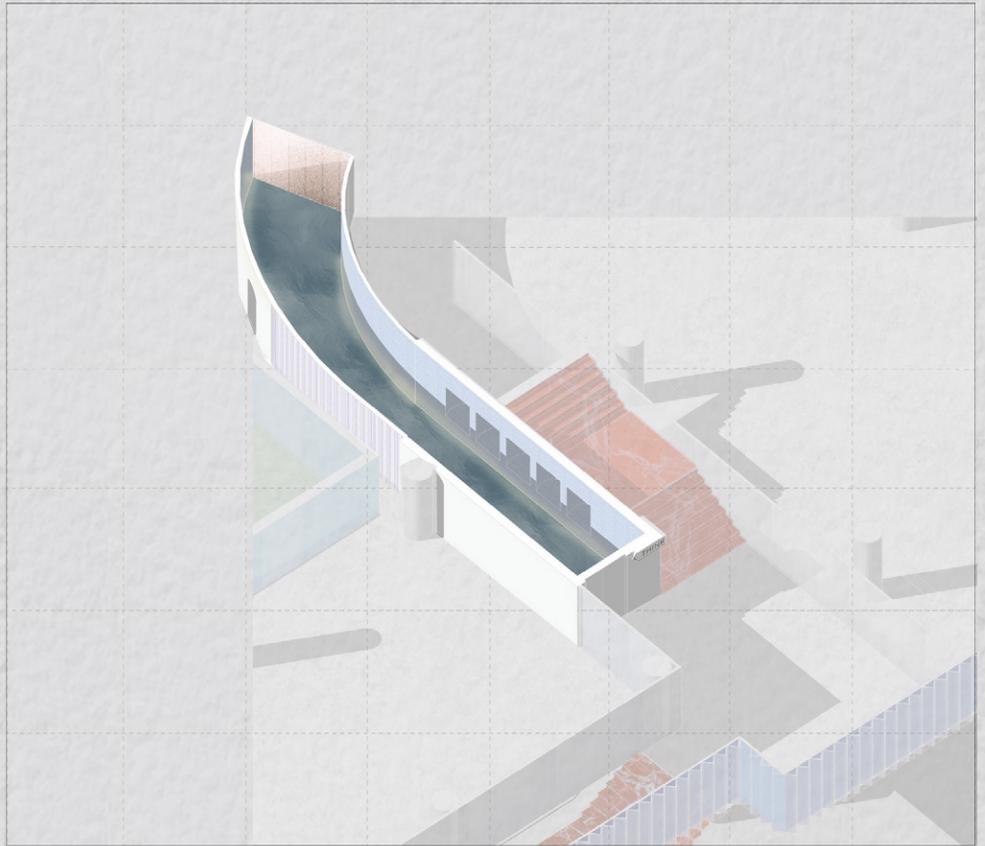
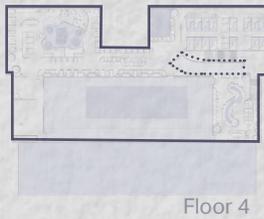


Fig. 81 | "Think Tunnel" entrance space



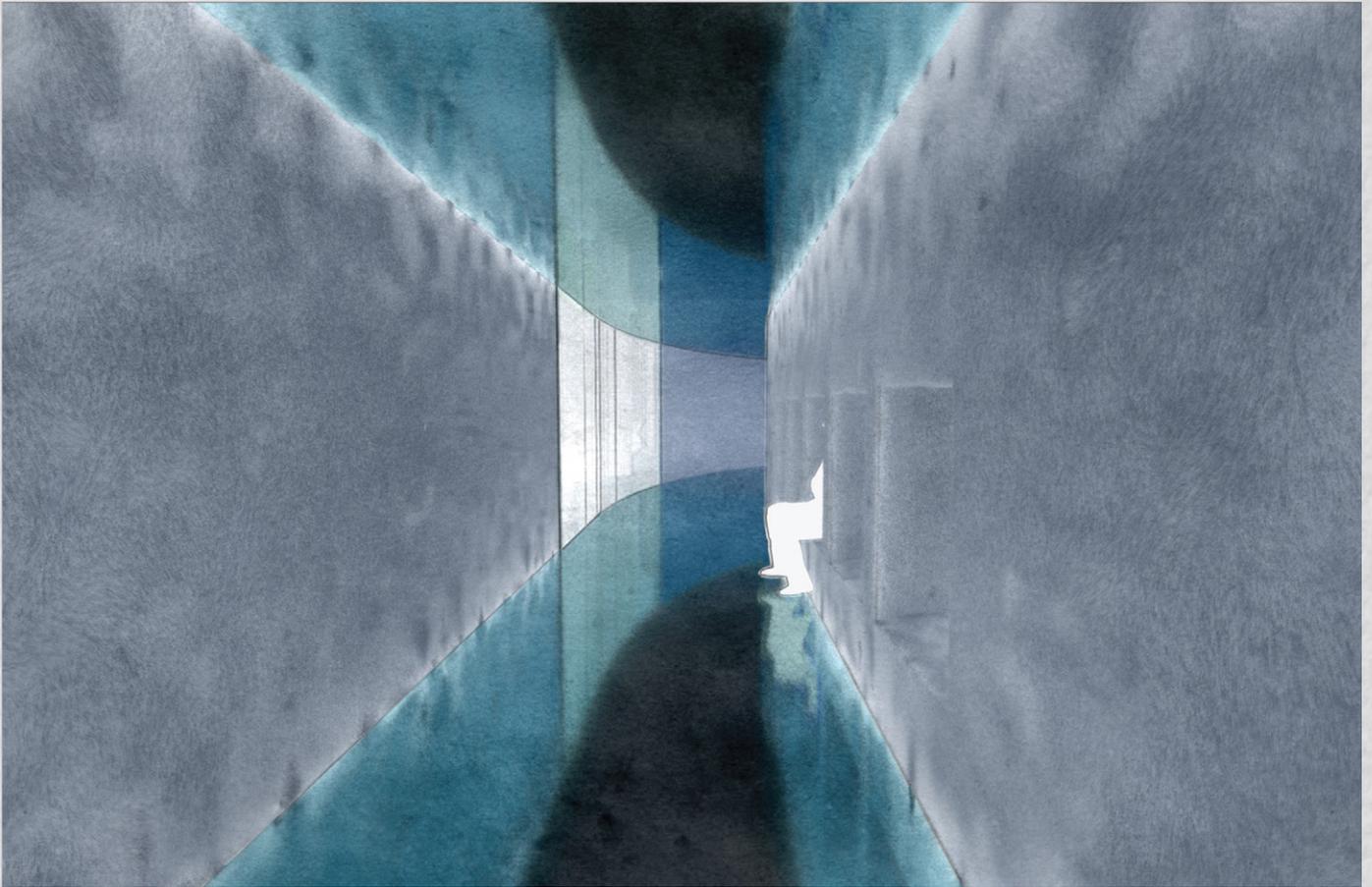
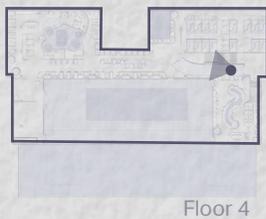


Fig. 82 | Individual sits in "Think Tunnel"



Floor 4

The "Float Pod" (figures 92-94) integrates flotation therapy, as a way to further promote sensory deprivation, to order to provide a connection to personal consciousness. Flotation therapy or flotation-REST (Restricted Environmental Stimulation Technique) is a method whereby an individual is immersed in epsom salt water, giving the ability to be completely buoyant. The individual is able to float horizontally with no effort involved, in an environment where all stimuli (sound and light particularly) are reduced to a minimum during a short period of time, often one hour. The reasoning for implementing this condition within the creative co-working space is to give users space where they are able to completely slow the mind, which can be incredibly useful during moments of creative blocks.



Fig. 83 | Individual flotation pod at ISO spa, Ottawa

The pod (shown in figure 91) can be used to alter and reset state of mind. A study done in 2003 showed that the results of using a flotation pod are likely to indicate positive effects, such as,

“...an increased well-being and relaxation, mild euphoria, greater production of ideas, an increased originality, improved sleep at night, reduced stress, tension, and anxiety, reduced pain, reduced headache, lowered blood pressure, less muscle tension, as well as a suitable complement to psychotherapy. Flotation-REST is a form of sensory deprivation that readily induces a state of altered consciousness. At the same time, individuals experience an elevated consciousness of inner, mental processes, changes in formal thought patterns, and reduced contact with reality.”¹²

A major component of the experience is also a close connection to the mind, as well as a change in individual's connection to time. For research, I decided to try the therapy pod in the middle of the day, following a morning writing this thesis. Mind buzzing, I walked into

the experience. I received earplugs, showered before entering the individual pod, and laid into the pod. I was told the sound of crashing waves would play, with the blue light on for ten minutes, and following that the music and lights would turn off for the remaining fifty minutes. I would be warned five minutes from the end of the hour by the same crashing waves, indicating the time to rise. I found the experience incredible and will be returning when I find my mind cluttered in the future. I walked in with some intense feelings of anxiety. The hour within the pod was a deep meditative state, slipping in and out of consciousness, the hour was both the shortest hour of my life, but also the longest. It was a strange relationship, that I mentioned to the owner upon departing, which he said is a fairly common comment. Through this experience, a wonder of how space and consciousness can be

incredibly intertwined arose. How could spaces such as this, which are deeply mindful and require deprivation of the senses, impact various mental states in everyday life? This spatial proposition proposes that spaces that promote a change in an individual relationship with time, mind and senses should be encouraged within the future of work environments in order to promote mindfulness and wellness in the future of increasing immaterial labour.

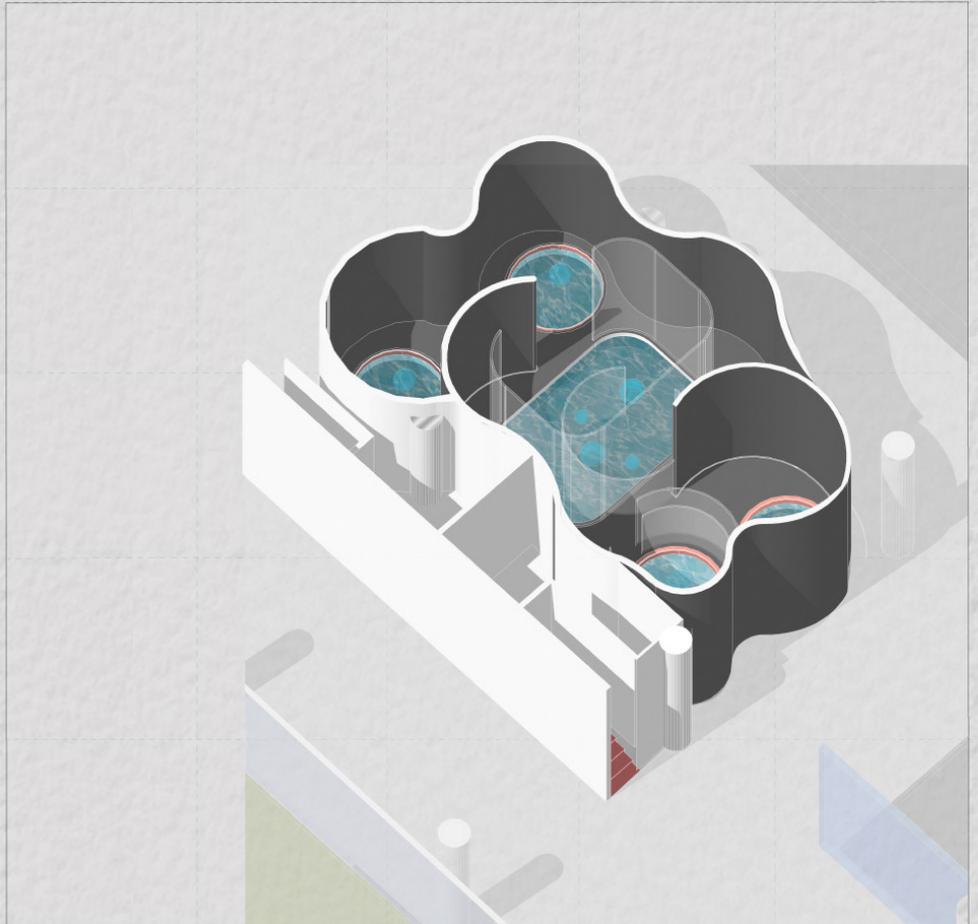
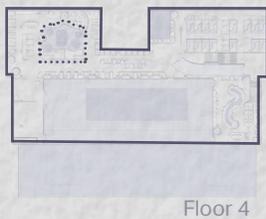


Fig. 84 | Float isometric view



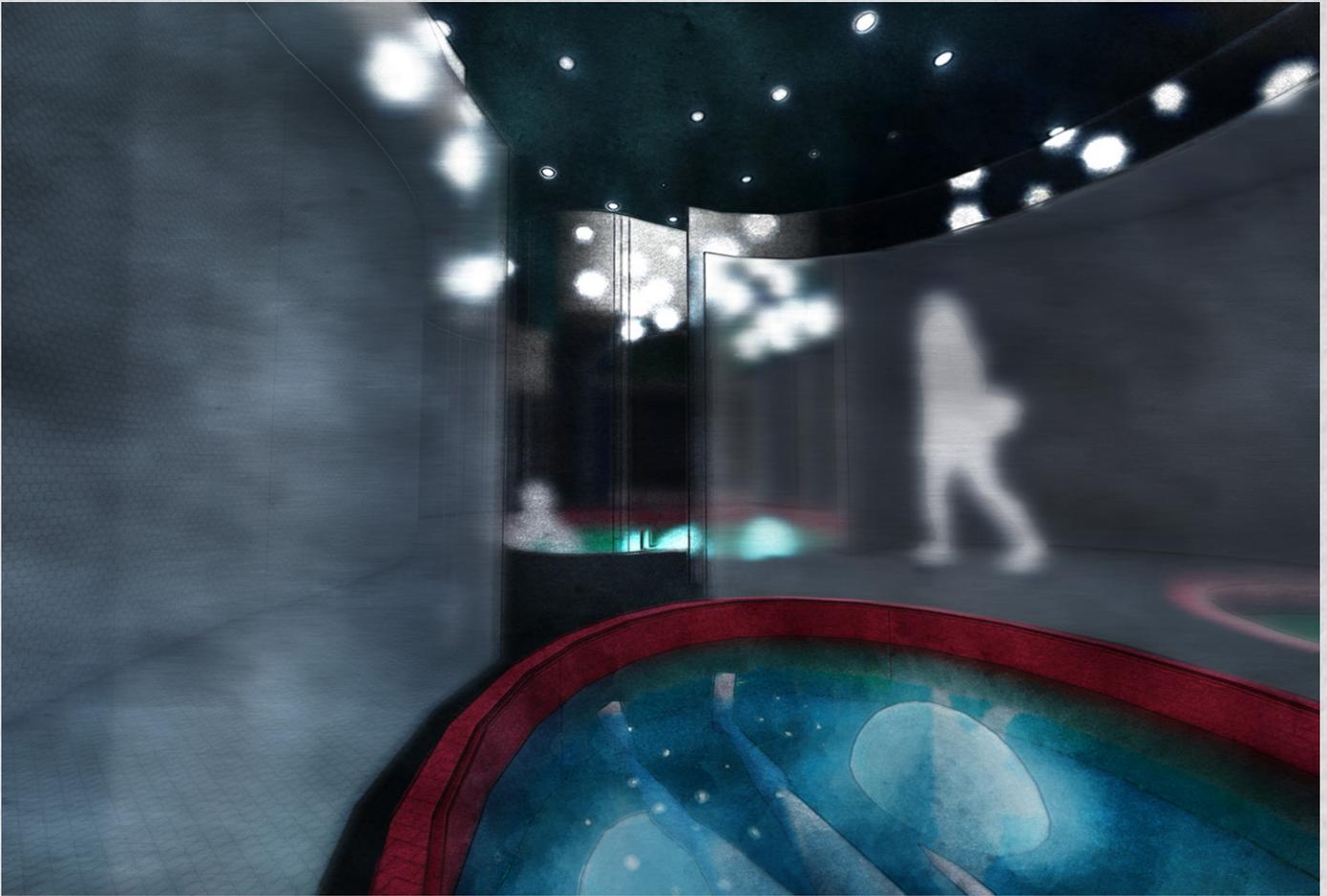
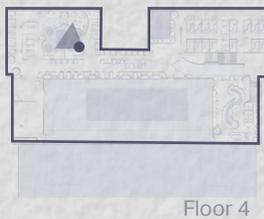


Fig. 85 | Float



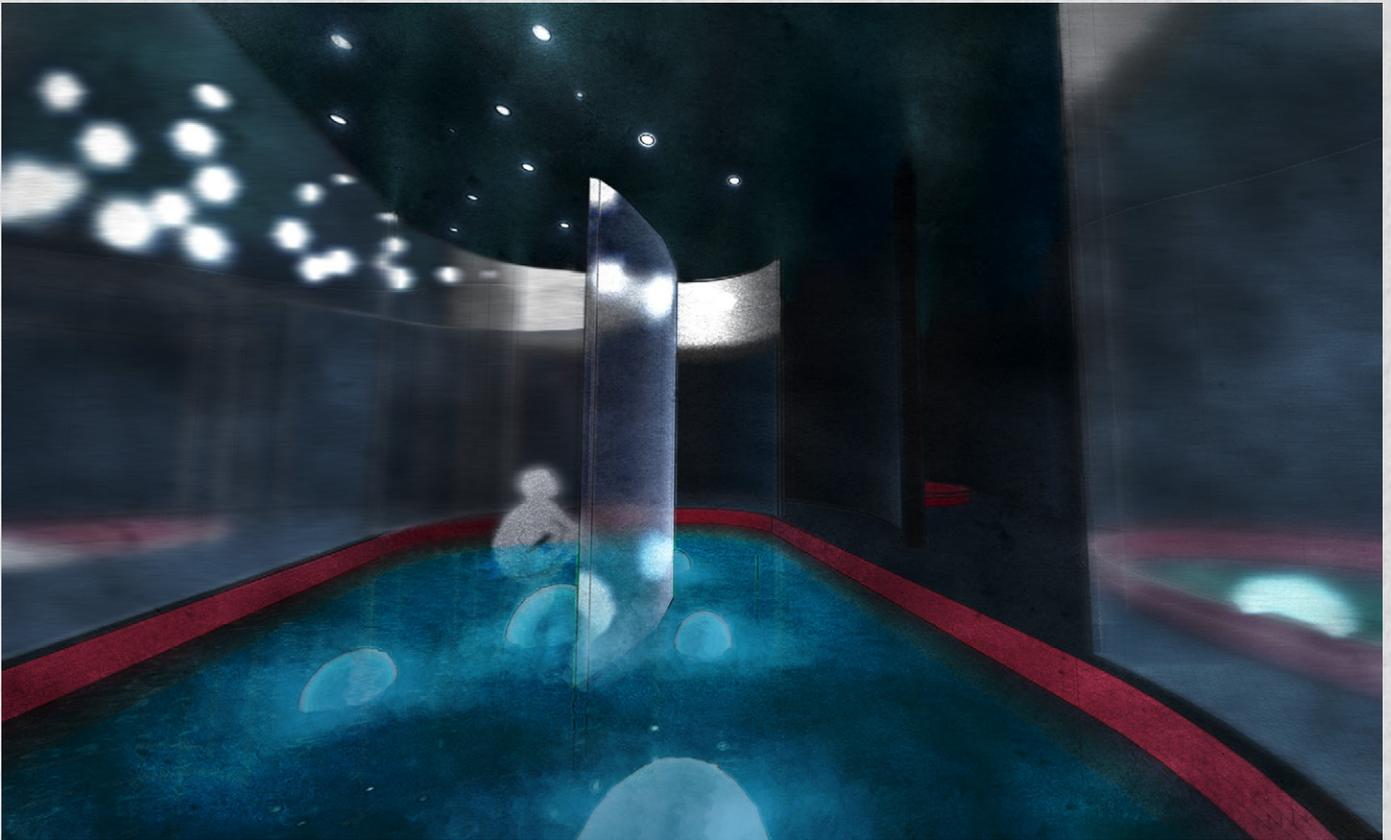
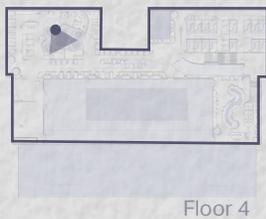


Fig. 86 | Float

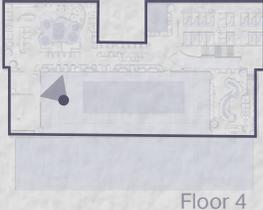


Floor 4

Disrupt.



Fig. 87 | Fitness studio and rooftop garden



Floor 4

Disrupt

Time is an important piece of the incubation stage within the creative process. Individuals theoretically should be given sufficient time if they are expected to do creative work, however, this is often difficult to provide. This piece of the thesis responds to this idea, by suggesting that future design in the workplace should provide space where time can be used freely, disrupting work patterns and trains of thought. Disruption is used as a way of promoting incubation periods, where dividing time between spaces for thinking, and working, with spaces that are entirely devoted to free

time and a complete disconnect from work, can provide the individual with ample opportunity to incubate on ideas which is a beneficial and crucial step in the creative process. According to Mednick, original ideas tend to be remote and are usually found far away from the original problem or initial idea. This remoteness requires time; it takes time to move from idea to idea to idea and to find the remote associate, which it is proposed here that space can aid in the freedom of time.¹³

The yin and yang private shower room (Figure 96-98) is a spatial concept that is proposed as an experience from dark to light, similar to the yin and yang, the user experiencing a clear duality in mental state and physical environment. The private room experience is proposed that users may shower in the "dark" area, the dark slate of the shower making a

space of relaxation, breaking the period of work, disrupting the mind, and upon exiting the "light" area the mirrored wall would accumulate fog from the steam of the shower, the user is able to close the light curtain sheltering them within the meditation space, where the mind is able to "de-fog" along with the surrounding environment. Many of the greatest minds have attributed creative ideas to spurring in the shower, and often the peacefulness of running water can aid in positive mental rejuvenation.¹⁴

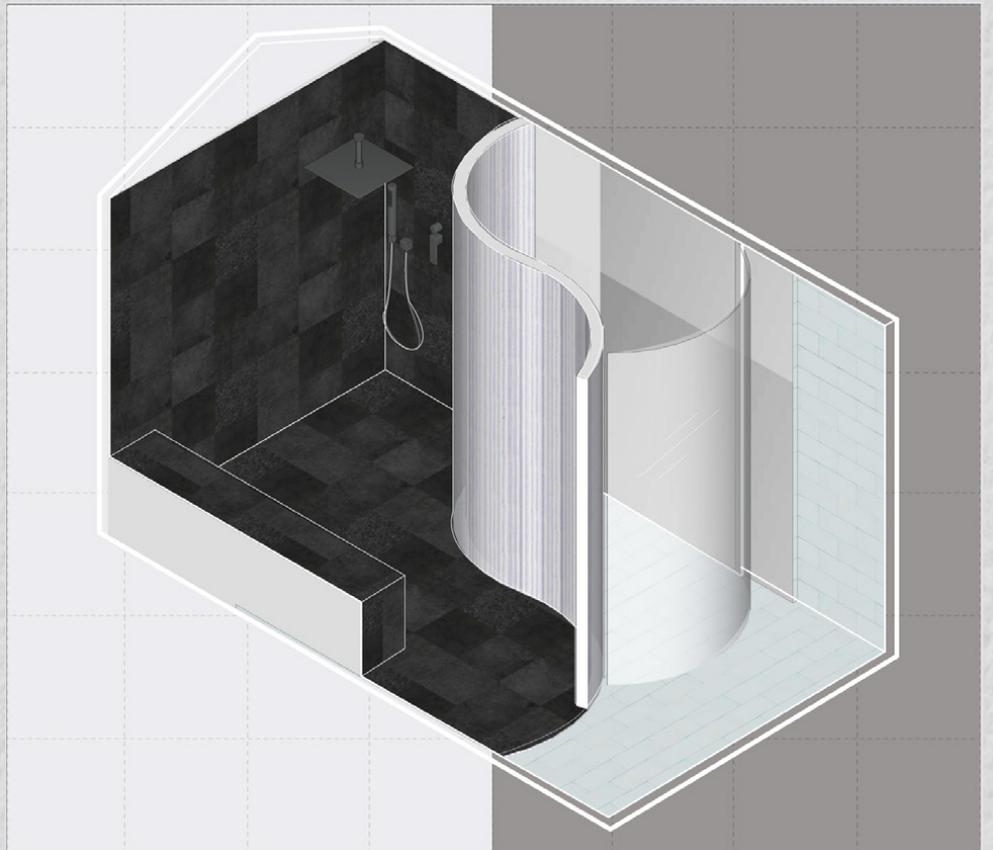
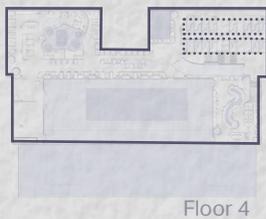


Fig. 88 | Yin and yang private shower room



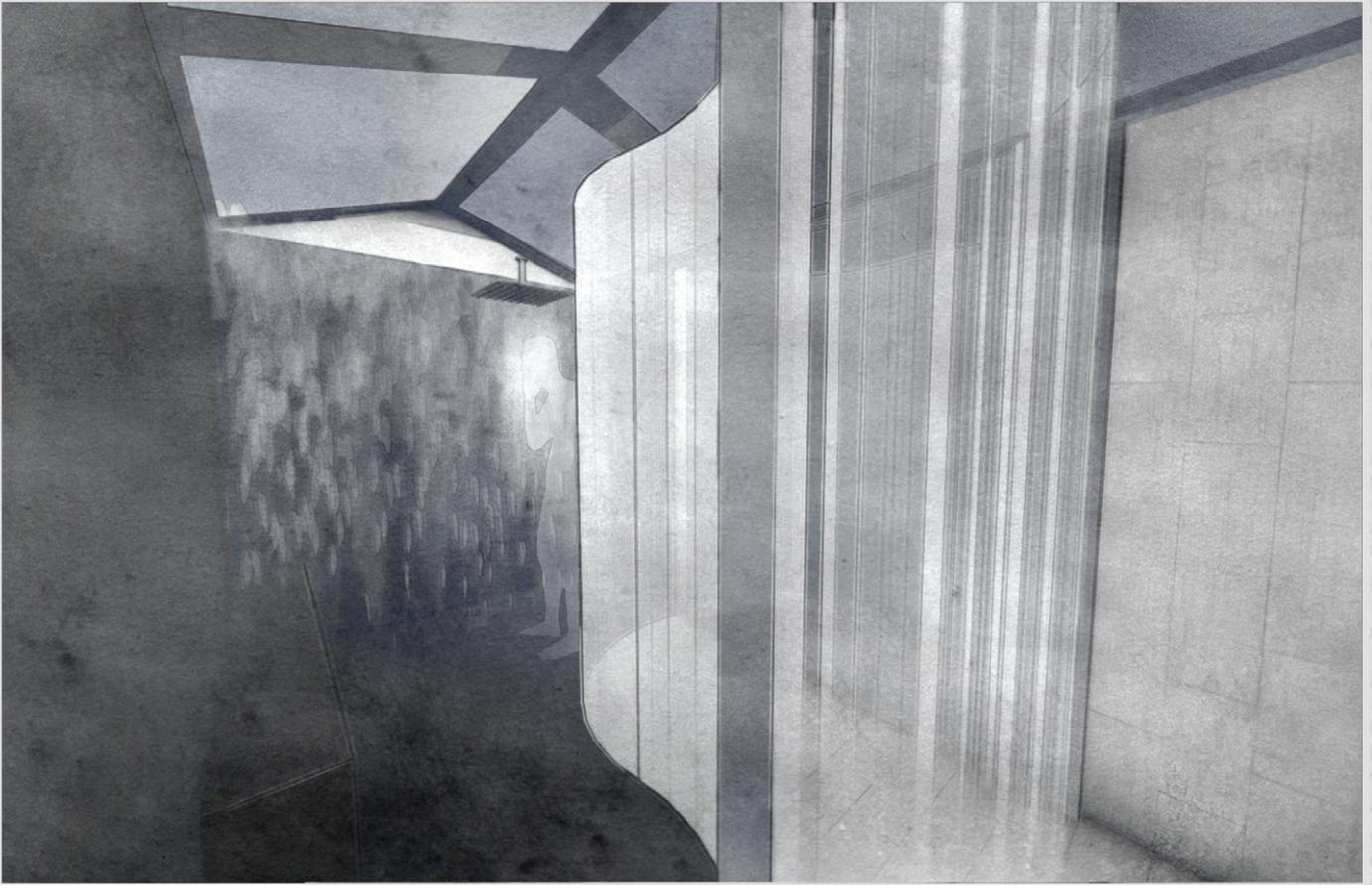


Fig. 89 | "Dark" space in yin and yang private shower room



Fig. 90 | "Light" space of yin and yang private shower room

Conclusions

The final design stages of the thesis aimed to focus on providing a setting for creativity by providing support, without interfering with it.¹⁵ Through research and design, the project hopes to speak to ideas similar to which Bernard Tschumi states, not the *condition of design* but the *design of conditions* that will dislocate the tradition and regressive aspects of society, and begin to reorganize elements in a more liberating manner, having experiences become events organized and strategized through architecture rather than a master-planning technique.¹⁶

This thesis was undertaken as a process of discovery into the complexities of designing for what a future space for creative workers might be. The research that was conducted was challenging as architecture's affect on creativity remains largely unexamined - in part due to the complexity involved in empirically studying it.¹⁷ In addition, the typical office worker is governed by forces of organizational culture that make creativity research within the office setting incredibly difficult to quantify. It is fascinating that to research creativity in studies, the environment must be controlled in order to have accurate findings, however this thesis work makes the argument for more autonomy and fluidity in the future workplace. Thus, I am unsure if we may ever be able to fully understand how architectural designs may impact human creativity, but this is perhaps the beauty in the

topic. Creativity has a fluidity at the moment that would most likely be lost if it were to be quantified. Its quantification also poses further risks to the wellness of those employed in creative industries.

Therefore, as the majority of the understanding around the dynamic relationship between individual and environment during the creative process is ambiguous, implementing the theoretical research of creativity into a full architectural design project was quite the exploration in itself.

At the end of this thesis, I believe that the representation of the thesis was successful in communicating the concepts of creativity research visually. By the use of watercolour as a medium, the drawings within this thesis work intended to use watercolour and the bleeding of watercolours one into the other as a deeper

metaphor to the blurring of spatial boundaries, as well as creative stages, flowing into one another, but also the melding of disciplines and individuals together. By using watercolour as a medium also the drawings are closer tied to ideas of creative flow, and how creative “[Flow] works like the movement of water, inspiring and connecting people and processes in an efficiency of movement and productivity.”¹⁸

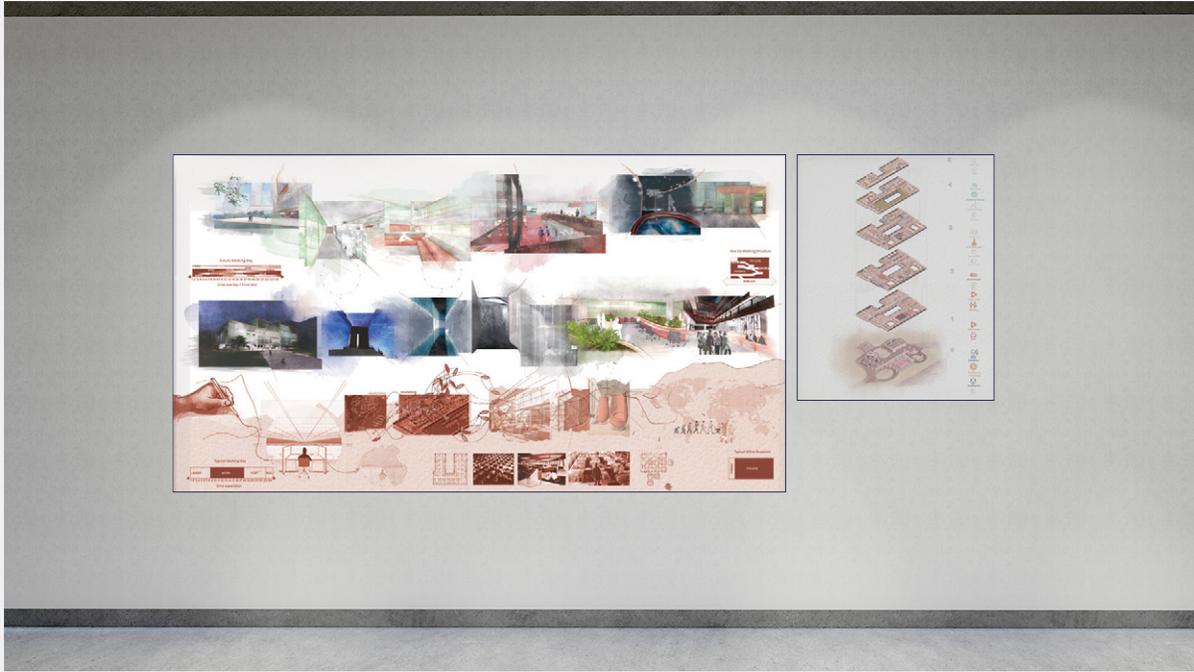


Fig. 91 | Final thesis defense, virtual presentation

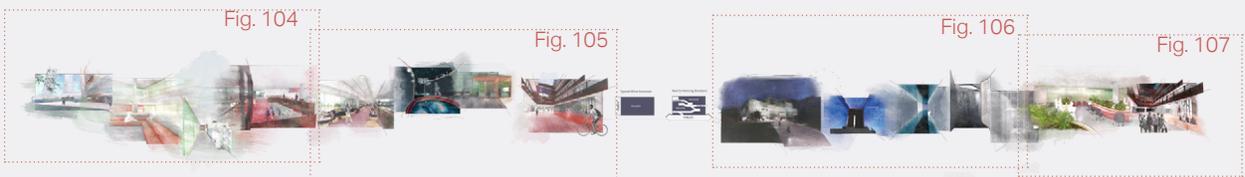


Fig. 92 | Final thesis defense, atmospheric film strip, overall



Fig. 93 | Enlargement of atmospheric film strip



Fig. 94 | Enlargement of atmospheric film strip



Fig. 95 | Enlargement of atmospheric film strip

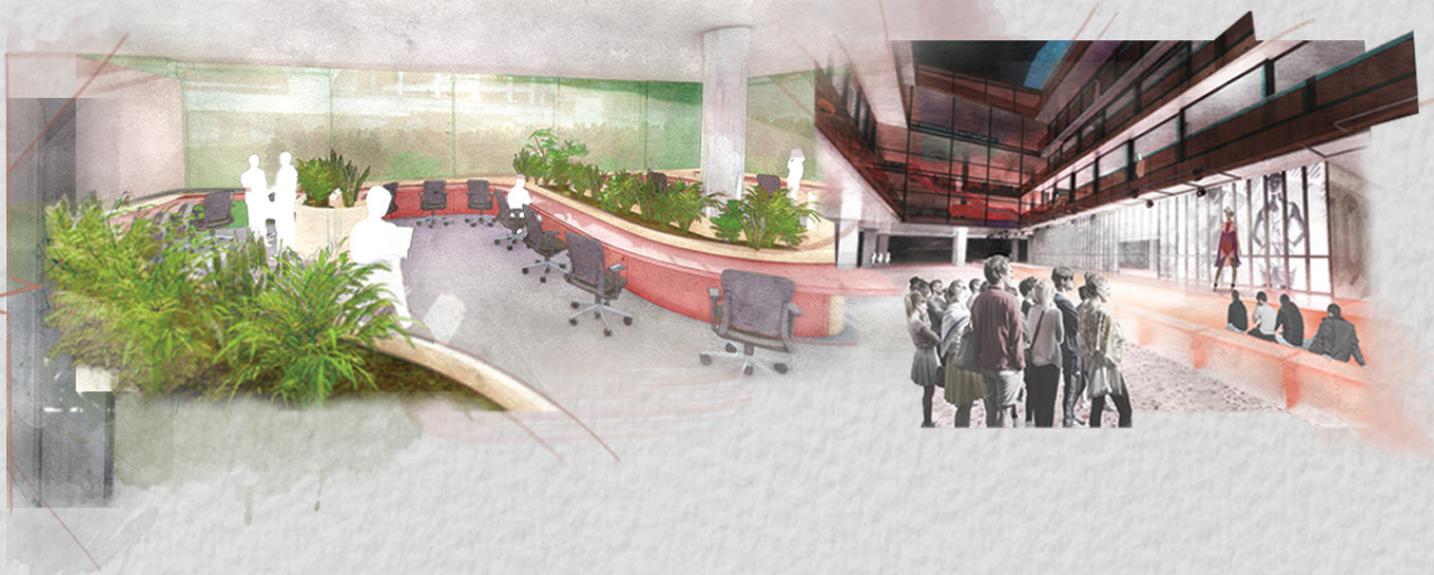


Fig. 96 | Enlargement of atmospheric film strip

In further research, if this thesis work were to continue in the future, I would return to, and further disseminate the boundaries of the architecture produced. I do think that there is room to further explore the blurring of boundaries from interior to exterior spaces, and would further continue thinking sectionally. If I were to rethink the architectural response, I would suggest the “think tunnel” feed its way through the entire section of the building, an armature that could weave itself throughout all floors, but with the largest presence closest to the other “think” spaces that would possess similar acoustic treatments. I believe this could be worthwhile as playing with perceptions of time and space were always, to me, an interesting element to the work, and I think this space exemplifies these ideas most successfully. Ultimately, there is never a “right

answer” to architecture, as there will always be an infinite amount of ways in which humans may manipulate space for specific use. I believe this project successfully situates itself as an exploration into the mystery of creativity, and the many shaping forces of the space in which many spend their waking hours, within the workspace. The project aimed to create a series of atmospheres, almost dreamlike in quality, in order to leave some ambiguity, and for the viewer to dream of the spaces where they themselves feel inspired.

In conclusion, this work proposes the analysis of the creative workspace as a dramatic, continuous performance, in the *precarious theatre of work*, where individuals and space continuously interact and influence each other, and continuously *set the creative stage*, rather than functioning as a static artifact.

The project hopes to highlight the unique qualities that humans possess within individual work and life patterns and proposes that future workplace designs must account for both the introverted and extroverted, especially within work that requires consistent output of creative thought. Through this variety of atmospheres produced, it is not solely about the change of environment, but it is the range of gestures to support both the serendipitous encounter and isolated deep thinking.¹⁹

The temporal nature of the creative process, and the temporal nature of our world today, was observed in order to further understand the ways in which humans are permanently suspended between being the cause and the effect of their environment. If one were to take away the main argument within this thesis, it would be that space constantly

communicates ways of being, and environments that we spend the majority of our waking lives, and our most productive hours, such as the workplace, should consider the messages that are constantly communicated through structure and place-making. And that creativity is a remarkable, multifaceted phenomenon that is proposed to be distanced from quantification and productivity measures, and in the future closer tied with notions of wellbeing, autonomy and freedoms of space, time and process.

In the end, this thesis may in fact end with quite a few more questions than concrete answers, but this work asks in conclusion, are questions not the driving forces of creativity?²⁰

Postscript

With this thesis I do not seek to provide an answer to the future of the workplace, as this would not be possible, however, I wish to emphasize the current moment of turbulence that can be felt within the conditions of society, and work environments.

I reminisce now to my first year of architecture school, where the all-nighter (superficially a social construct) became a rite of passage. It is fascinating that architecture school has seemingly always had extreme labour and endurance as a precondition to creativity, but now it seems that this is penetrating much of labour and work environments.

The inception of this studio culture is unclear, however its continued presence seems to have less to do with cultural inheritance and more to do with the conditions of present society, to continue to compel its existence.¹ The built fabric of the work environment now more than ever communicates and manifests certain ideals, and I believe now is the appropriate time to be questioning these formations.

Appendix A: Personal Process

This thesis work has proven to be a great time to pay attention to personal creative rhythms and patterns while writing and designing. It was an enriching experience to read about others' creative processes throughout time and attempt to define what times of day, or spaces, I have felt allow me to think more freely. Completing this thesis required extensive periods alone, and copious amounts of contemplation and creation, as well as time management. I believe that attempting to be present and mindful throughout this process has proven fruitful for the final cumulation of work.

I realized early into this process that my fascination with the work environment came from my own experiences working in a range

of office typologies, (including open, closed and of course, spending some extended time within a cubicle), and these experiences have all driven this thesis work. I have found myself in these environments feeling little control over my surroundings, and this thesis work came from an initial questioning of "why?".

Why - when we are in a great period of creative flow, is it so easy to be interrupted, then spending a significant amount of time to try and resume our train of thought?

Why - when one feels anxious, can architecture not embrace us and take us away from the public realm and into the private realm?

Why - not design everyday environments to appeal to a wide range of people and work patterns?

I will further explain personal working habits purely as a method of reflecting upon this process.

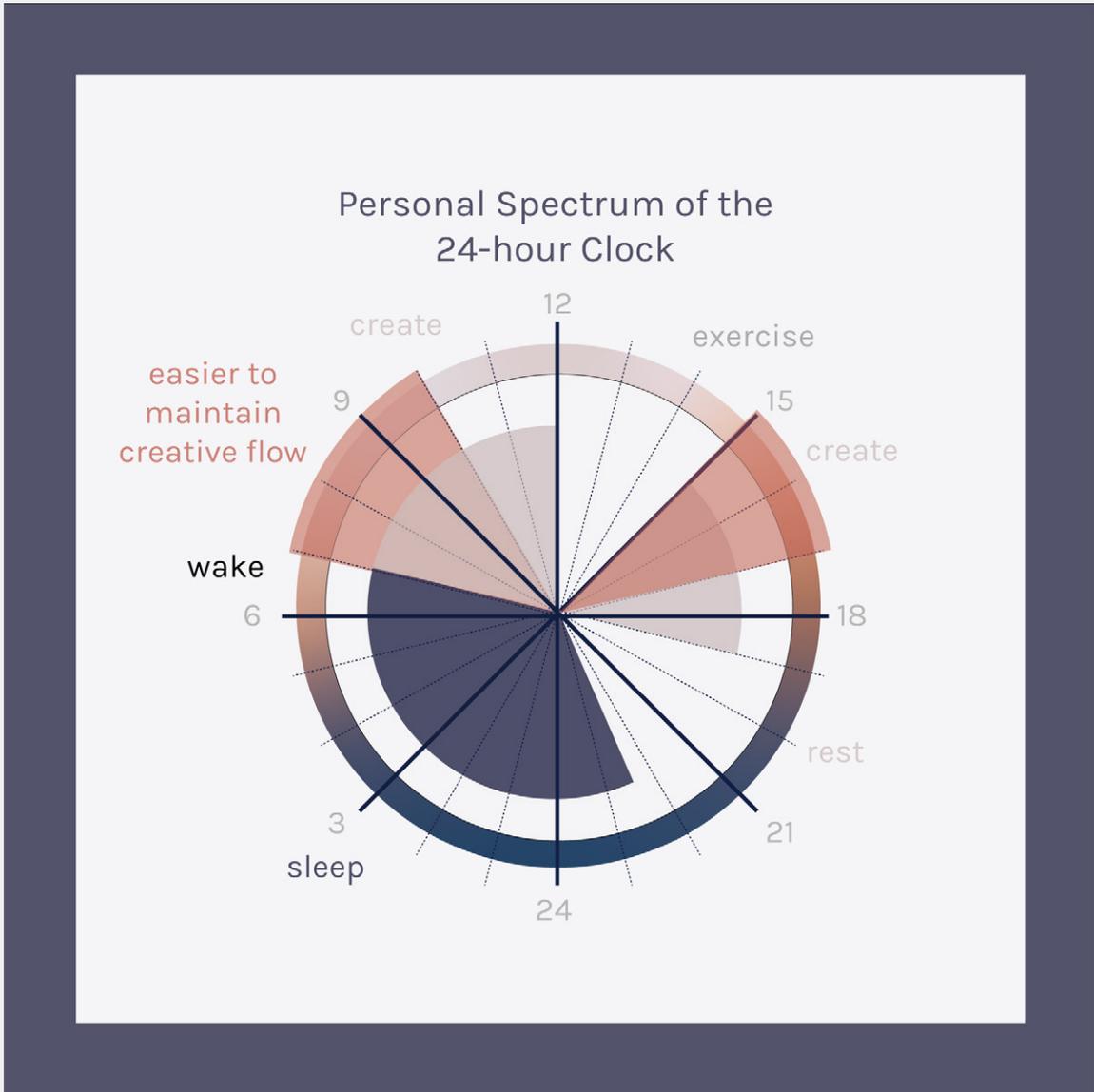


Fig. 97 | Personal creative process, time account

Throughout this process, some have asked if I believe the creative process has to have spatial implications. I believe that although the creative process varies significantly throughout disciplines of work, I can only speak in detail from my own experience in architectural design and my creative process. I believe that there are not necessarily direct spatial implications for the work that we do, and I am not suggesting that one *must* move from space to space throughout their process. However, I ask what if, we did have a range of spaces available to us throughout our everyday work process? If there was a richness to architecture that could provide spaces that help to cultivate a deep work process and connection to consciousness in our distracted world? What I found from completing the thesis work, was the freedom to choose where I work best, and this didn't have to be

within the normal confines of the studio. There were a range of spaces that I chosen to work in during this thesis work that possessed different spatial affordances. The majority of this thesis work was completed in my home office, the main floor of the Carleton Library and in the National Arts Centre (NAC) in Ottawa. The environment of my home office was one that I very much enjoyed working in due to being able to control various levels of comfort and acoustics. When I knew I had to maintain a creative flow, this was always the space I was in, as I found noise to be a distraction that could throw me off of this flow, and within my office, I can work in peaceful silence, or with music of choice. When I began to feel anxious, or in need of a change of scenery, I would, whenever possible, make my way to the NAC. I found being surrounded by strangers doing work different than my own,

while wrapped in a soft round chair that blocked my peripheral vision to be incredibly soothing. It is an incredibly public building where there are constant activities and life that animate the building. The views outside of the windows that I loved to work in front of, provide views out to the Château Laurier, Rideau Canal, and Parliament Hill. The building has an incredible richness to it, from the people who populate it, programming within the building, to its spectacular contextual surroundings. The NAC is a performing arts venue in the downtown core of the city of Ottawa, and I believe having the opportunity to work in the building had a significant influence on this work. I did a large majority of writing at the NAC and the Carleton Library, and completed most designing and modeling within my home office. Every space that I chose to work had natural views, most often during daylight hours, and for me, this is where I

did my best work, but the realm of public/private, loud/quiet spaces would vary based on the work I wished to complete.

I found throughout my process while designing and sketching I preferred waking up as early as possible and working in my office space at home. This way I could be completely alone in the mornings and put my head down, solving the biggest design issues in the early morning. In the afternoons following lunch, I made a point to get outside and/or exercise. As soon as I were to walk outside it never failed to ease my racing mind. Upon returning, the break from work often had me feeling more productive, not necessarily creative design work, but I found that writing and further developing drawings from the mornings were beneficial.

Finally, as the master of creative flow research, Mihaly Csikszentmihalyi, stated in his

work *Flow Experience*, moments of flow are difficult to maintain for extended periods of time, without interruption.

Csikszentmihalyi wrote:

“Typically, a person can maintain a merged awareness with his or her actions for only short periods interspersed with interludes (from the Latin *inter ludes*, “between plays”) in which the flow is broken by the actor’s adoption of an outside perspective. These interruptions occur when questions flash through the actor’s mind such as: ‘Am I doing well?’ or ‘What am I doing here?’ or ‘Should I be doing this?’

When one is in a flow episode (in *ludus* as opposed to *inter ludes*), these questions simply do not come to mind.”¹

This is a thought I hold dear to my heart at the culmination of this thesis work. A period of great creative flow - to me - is a moment in time that you do not doubt yourself or your abilities, you simply are *one with your work*, having a general feeling of well-being, and complete control over your world.



Fig. 98 | Personal spaces for creative work during thesis year

Appendix B:

Competition + Thesis Development Schedule

September 11: Registered for Competition

October 16: Colloquium I



Fig. 99 | Beginning of design work, shown during Colloquium I presentation

October 19th-25th: Traveled to Milan, Italy



Fig. 100 | Further design development, Colloquium II

Competition + Thesis Development Schedule

December 20th: Mini-Thesis Due

December 23rd: Competition Submitted

Requirements included:

Maximum of 4 boards (portrait)

Site Plan

Key conceptual sections x 1 Minimum

3D views x 4

Cover image

Included below are the original competition boards submitted to the Co-Design Milan competition on December 23rd, 2019.

CO-LAB MILANO

Looking toward a future society where technology has continued to change the nature of labour and production in the creative workplace, CoLAB Milano is proposed to question the balance of work versus leisure. Addressing the ever-increasing creative sector, and its connection to extreme pressure, discounted compensation and erratic work schedule, the building is proposed to become a central community hub where creative workers are able to find support, education and leisure. As hours of work continued to be stretched in the future, so that there is no longer time to connect with others, the CoLAB building represents a safe coworking space where displaced creative workers are able to come and improve mental and physical wellbeing by connecting with one another, being active, curious, and ultimately learning and giving back to the community. By having an extremely public presence, the building intends to be completely inclusive, and create opportunity for society to animate the "never closed" spaces, and propose that a multi-use public building where social connection is at the core, will be a sustainable model. The CoLAB represents a community hub that is used to support and reconnect creative individuals during a time of precarious work.

This project will refer to designers using the following definition:

design

noun
A specification of an object, manifested by an agent, intended to accomplish goals, in a particular environment, using a set of primitive components, satisfying a set of requirements.

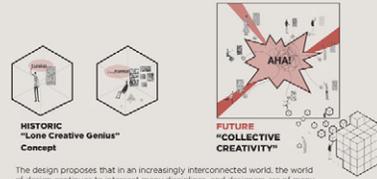
Adapted from a formal Definition of the Design Concept by Paul Smith and Yael Weitzky

precarious work

noun

A term that critics of globalization use to describe non-standard employment that is insecure and often poorly paid, that results in poverty, insecure living, social isolation (poorly paid work compels people to work more hours to compensate) which can damage well-being and community relations.

Work Rights Centre website

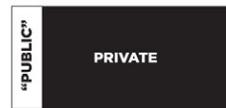


HISTORIC
"Lone Creative Genius"
Concept

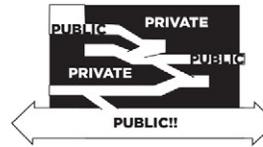
FUTURE
"COLLECTIVE
CREATIVITY"

The design proposes that in an increasingly interconnected world, the world of design continues to intersect many disciplines, and designers are of many diverse disciplines and perspectives. Creativity is no longer an individual struggle against the masses but future work must become increasingly collaborative, as humans continue to face increasingly complex issues.

TYPICAL OFFICE STRUCTURE



NEW CO-WORKING STRUCTURE



TYPICAL WORKING DAY



TIME SEPARATION

CREATIVE WORKING DAY



TIME OVERLAP / TIME BLUR



Fig. 101 | Board 1

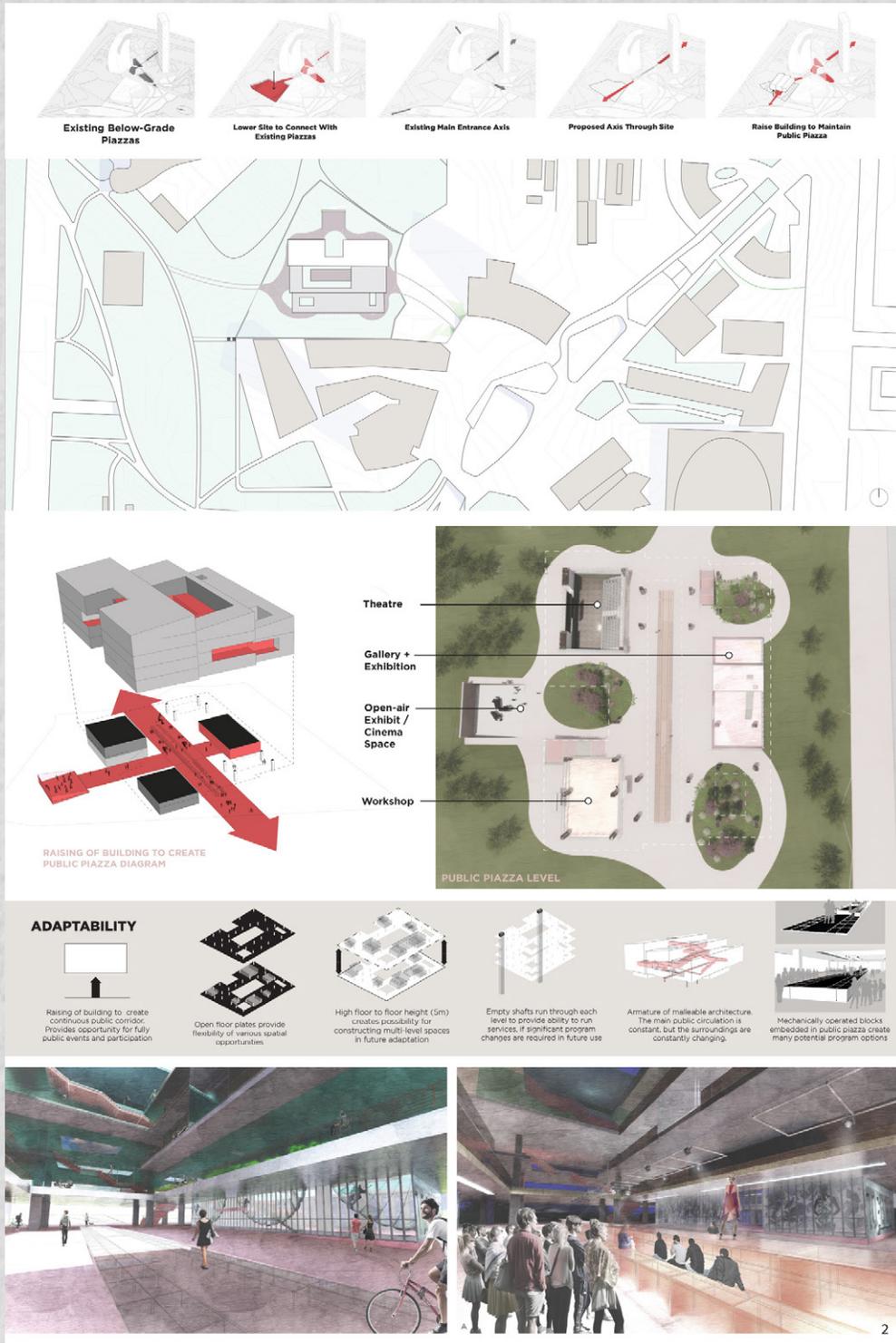


Fig. 102 | Board 2

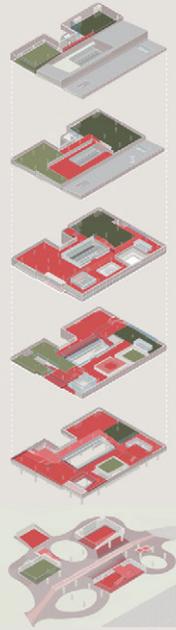
Proceeding an era of technological revolution, and an increase in job insecurity, CoLAB Milano looks to aid in the support of freelancers and small businesses in the creative sector by supplying a range of affordable work environments.



FREE
Public space, workspaces, cafe, food court and rooftop garden.

LESS THAN LOCAL COWORKING MODELS
Price represents the ability to have small storage options, renting of meeting space and/or the renting of short-term personal office space.

EQUAL TO LOCAL COWORKING MODELS (BUT TAKES INCOME INTO ACCOUNT'S PRICE SCALING)
Price represents the rental of long-term (monthly, yearly) workspace ownership, areas that require key cards to access for access safety and/or privacy and renting of event space.



CREATIVE SPACES

CoLAB Milano intends to provide a wide range of workspace options, to support the belief that different people and projects require different workspace needs. The flexible spaces are proposed to support the entire creative process, using inspiration from psychologist Graham Wallas' model of creativity.

PREPARATION

Places for thinking. Included various spaces including quiet individual studios (flow zone) and also include a high concentration of meeting and public areas, to meet and gain knowledge with others.



INCUBATION:

Spaces that offer the creative user a freedom of time to distance themselves from the work, and option to connect with others. Areas such as meditation and yoga rooms, fitness studios, gardens, private hot shower rooms and event space.



ILLUMINATION:

Supporting breakthrough ideas by opportunities of making/working through an idea. These spaces would be flexible to house traditional desk workspaces, and also workshops and artist studios that assist in bringing ideas into physical conception.



VERIFICATION

Exhibit/display ideas and creations for feedback and confirmation of the original idea. These range of spaces include gallery space, boardrooms, pin-up space, to the theatre and dance studio.



PROPOSED PROGRAM DIAGRAM

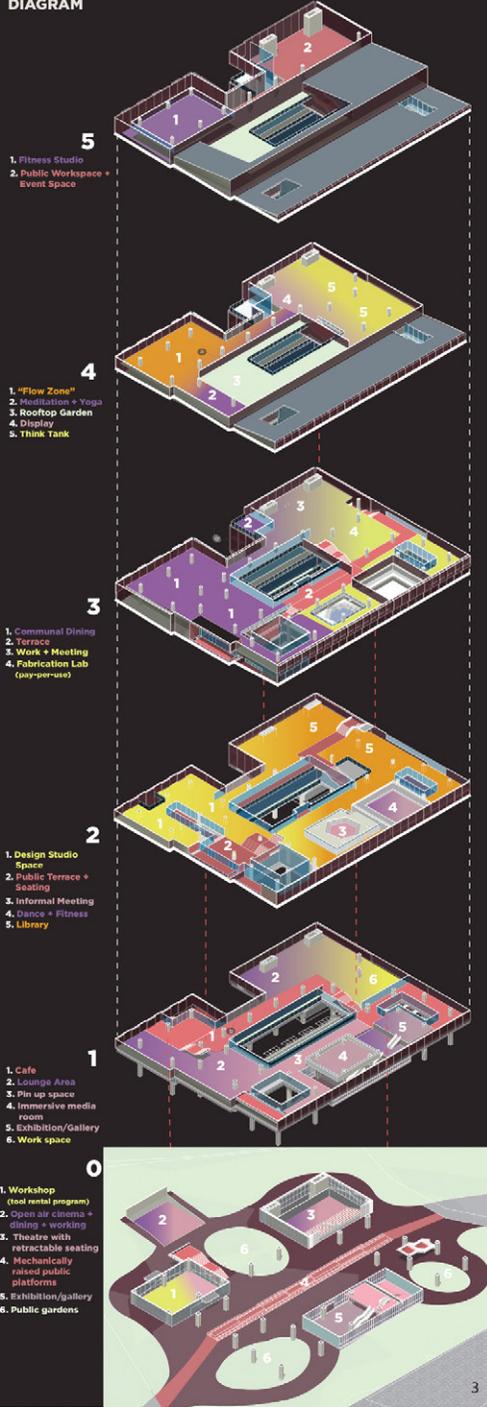


Fig. 103 | Board 3



Fig. 104 | Board 4

Competition + Thesis Development Schedule

January 7th: Shortlisted entries announced

Jury Members

Daniel Bonilla | *tab>I* Columbia

Giovanni Vaccarini | *Giovanni Vaccarini Architetti*, Italy

Paulo Seco | *Impare Arquitectura*, Portugal

Michele Rossi | *Park Associati*, Italy

Madeline Sewall | *Breathe Architecture*, Australia

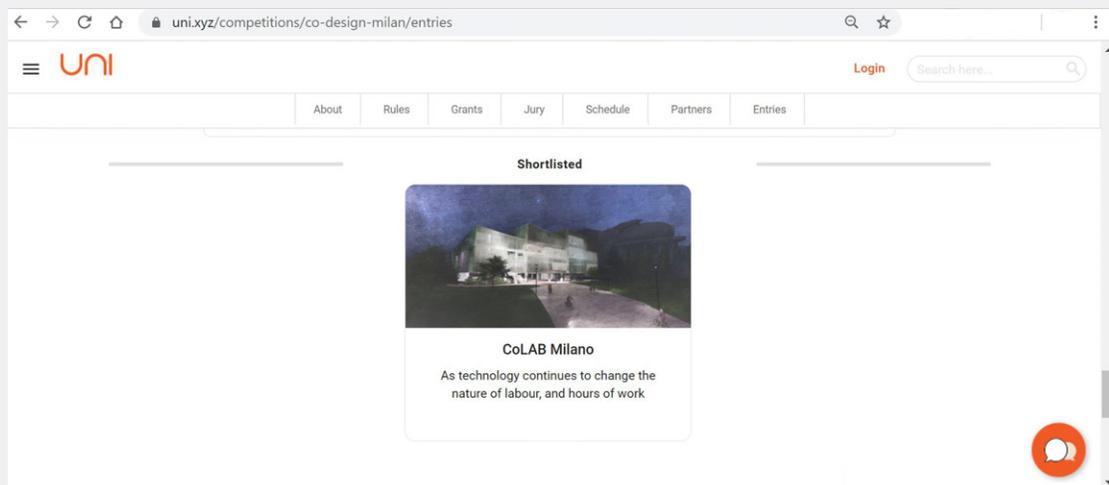


Fig. 105 | Screenshot of UNI website

January 20th: Azrieli Mini-Thesis Awards
announced, project receives honorable
mention.

Competition + Thesis Development Schedule

February 10: Colloquium III



Fig. 106 | Colloquium III presentation

February 20: Competition results announced

Project is not amongst the two winners,

however, the jury leaves feedback online.



Fig. 107 | Screenshot of UNI website, jury comment on project

Endnotes

Part I

"the office"

- 1 Kidder, 2011, pg 53.
- 2 Wilkinson, 2019, pg 8.
- 3 Kornberger and Clegg, 2003, pg 78.
- 4 Florida, 2002.
- 5 De Peuter, 2011, pg 418.
- 6 Ross, 2008, pg 39.
- 7 McRobbie, 2011, pg 120.
- 8 Ross, 2008, pg 38.
- 9 Crary, 2014, pg 10.
- 10 Colomina and Wigley, 2016, pg 57.
- 11 Landon, 2019.
- 12 Özkâr, 1999, pg. 11.
- 13 Budds, 2016.
- 14 Kornberger and Clegg, 2003, pg 78.
- 15 Ibid.
- 16 Wilkinson, 2019, pg. 35.
- 17 Ibid, pg 42.
- 18 Duffy and Powell, 1997, pg. 17
- 19 Saval, 2012, pg. 2.
- 20 Andrews, 2014.
- 21 Carsten and Cagnol, 2013.
- 22 Spinuzzi, 2012.
- 23 Noonan and Glass, 2012, pg. 38.
- 24 Bilandzic, 2013, pg. 2.
- 25 Spinuzzi, 2012, pg. 402.
- 26 Groves and Marlow, 2016, pg. 208.
- 27 Groves and Marlow, 2016, pg. 148.
- 28 Ibid.
- 29 Ibid.
- 30 Ibid.

- 31 Espace Thèsez-vous, website.
- 32 Groves and Marlow, 2016, pg. 68.

Part II

creativity

- 1 Chung, 2015.
- 2 Florida, 2002.
- 3 De Peuter, 2011, pg 418.
- 4 Thompson, 1967, pg. 61.
- 5 Ross, 2008, pg 33.
- 6 De Peuter, 2011, pg. 418.
- 7 Ross, 2008, pg. 33.
- 8 Ibid.
- 9 Gandini, 2014, pg. 2.
- 10 Workers Rights Centre Website.
- 11 Rolnik, 2011, pg 29.
- 12 Marullo, pg. 104.
- 13 Newport, 2016.
- 14 Ibid, pg. 65.
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- 16 Ross, 2008, pg. 39.
- 17 Isaken, Puccio, and Treffinger, 1985.
- 18 Wallas, 1926.
- 19 Malinin, 2016, pg 4.
- 20 Ibid, pg 12.
- 21 Dart, 1989.
- 22 Malinin, 2016, pg 12.
- 23 Dasgupta, 1994, pg. 34
- 24 Wilkinson, 2019, pg. 131.
- 25 Guilford, 1950.
- 26 Isaken and Treffinger, 1993.
- 27 Malinin, 2016, pg 6.
- 28 Wynn and Coolidge, 2014, pg 46.
- 29 Robinson and Pallasmaa, 2015, pg 199.
- 30 Peters, 1992, pg 413.
- 31 Till, 2013, pg. 19

- 32 Ibid.
- 33 Hill, 2003, pg 31.
- 34 Evans, 1978.
- 35 Roudavski, 2008, pg 24.
- 36 McRobbie, 2011, pg. 128.
- 37 Gross, Jancuite, Musgrave and Barnett, 2018.
- 38 World Health Organization, website.
- 39 Lee, 2019.
- 40 Beyond Blue & PwC, 2014.
- 41 Ibid
- 42 Hoisington et al., 2019, pg. 60.
- 43 Ibid.
- 44 Ibid.
- 45 Ibid.
- 46 Lee, 2019.
- 47 Zampetakis et al., 2009, pg. 23.
- 48 Cutright et al., 2016.
- 49 Ibid.
- 50 Schein, 2010, pg. 8.
- 51 Zampetakis et al., 2009, pg. 25.
- 52 Ibid.
- 53 Shih, 2002, pg. 19.
- 54 Cutright et al., 2016.
- 55 Ibid, pg 6.
- 56 Nute et al., 2012.
- 57 Crary, 2014, pg. 22.
- 58 Ibid.
- 59 Basner, et al. 2014.
- 60 Pinholster, 2014.
- 61 Crary, 2014, pg. 2
- 62 Ibid, pg.3
- 63 Wittman, 2016, pg 65-66.
- 64 Csikszentmihalyi et al, 2014, pg. 137.
- 65 Wittmann, 2016, pg. xi.
- 66 Till, 2009, pg 79.
- 67 Ibid, pg 98.

Part III

design

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- 2 Ibid, pg. 65.
- 3 Mariotti, Pacchi and Di Vita, 2017, pg. 48.
- 4 Uni, website
- 5 Berardi, 2015, pg 116.
- 6 Wilkinson, 2019, pg. 68.
- 7 McRobbie, 2011, pg. 127.
- 8 Csikszentmihalyi, et al., 2014. pg 156.
- 9 Frascari, pg. 87.
- 10 Crary, 2014, pg. 80.
- 11 Frascari, 2012, pg. 91.
- 12 Kjellgren, et al. 2008.
- 13 Zampetakis et al. 2009.
- 14 Annerstedt et al. 2013, pg 241.
- 15 Kornberger and Clegg, 2003, pg 88.
- 16 Tschumi, 2000.
- 17 Malinin, 2016, pg. 16.
- 18 Wilkinson, 2019, pg. 10.
- 19 Newport, 2016, pg. 131.
- 20 Ibid, pg. 4.

Postscript

- 1 Dunn, 2018.

Appendix A:

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