A Library of the Mind

by

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AUTHOR'S DECLARATION

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ABSTRACT

In order to adapt to the explosion of technology and information, our culture has organized knowledge into distinct categories, and has privileged the “known” as the ideal truth. While this reductionist approach allows us to efficiently examine a specific topic, it has also led to a fragmented and oversimplified understanding of an otherwise enigmatic world. Umberto Eco, semiotician and novelist, criticized this rigid categorization and preferred a more complex, labyrinthine system, organizing his personal ad-hoc collection of books into unconventional categories. Venice, the labyrinthine city, is a physical manifestation of the concept of non-linearity and becomes a metaphor and strategy for exploring the idea of mystery and the *dérive*. The thesis explores the themes of slow reading, serendipity, and mystery, through the design of a Research Library that brings together Eco’s collection.

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ORGANIZATION OF THE BOOK

The book is organized into two parts.

The first part is divided into four sections, including Speed, Slow Reading, Mystery and Categorization, and establishes the cultural and architectural themes of the thesis. Each of the sections begins with a short narrative, which helps to introduce distinct concepts in a continuous manner. Each section discusses the themes through cultural and architectural examples, while also introducing the site, Venice.

The second part continues to discuss these themes through the design project, a research library in Venice. The design is explained with architectural precedents, and further elaborates on the overall cultural and architectural themes.

PREFACE

For most of history, the library typology has been reactive, even subservient, to trends, technological advancements, and to the ever-changing demands of society. It has gone from a repository of stone tablets to a digital hub, and it is one of the typologies that continues to witness drastic changes in its role and function. However, the essential idea of the library remains consistent throughout time. For example, the library as a symbol and a concept, is synonymous to knowledge and cultural memory and is illustrated through fiction and folklore. In the *Library of Babel*,¹ an autonomous and even omnipotent characteristic was given to the library; in *Fahrenheit 451*,² the library transcends physical form and gains deeper significance as it lives in the minds of its readers. Today, more than ever, we witness an inconsistency between the concept and reality of a library as we continue to move towards an era of speed and distraction. Utilizing this cultural typology, the thesis and architectural design project explores broader concepts of knowledge, categorization and serendipity through the design of a library.

¹ Jorge Luis Borges, . "The Library of Babel." *Collected Fictions*. Trans. Andrew Hurley. NewYork: Penguin, 1998.

² Ray Bradbury. *Fahrenheit 451*. Kbh.: Gyldendal, 2010.

PART I THEMES

SPEED & DISTRACTION

Films and radios, magazines, books levelled down to a sort of paste pudding norm...Picture it. Nineteenth-century man with his horses, dogs, carts, slow motion. Then, in the twentieth century, speed up your camera. Books cut shorter. Condensations, Digests. Tabloids. Everything boils down to the gag, the snap ending...Classics cut to fit fifteen-minute radio shows, then cut again to fill a two-minute book column, winding up at last as a ten- or twelve-line dictionary resume...One column, two sentences, a headline! Then, in mid-air, all vanishes! Whirl man's mind around about so fast under the pumping hands of publishers, exploiters, broadcasters, that the centrifuge flings off all unnecessary, time-wasting thought!... It didn't come from the Government down. There was no dictum, no declaration, no censorship, to start with, no! Technology, mass exploitation, and minority pressure carried the trick.

-Excerpt from Ray Bradbury's *Fahrenheit 451*

Shoot, I'm late, I'm late, I'm late!

It was 1:54 pm and I was rushing to an unknown destination, panting, sweating. As I weaseled through the crowd of faceless people, I could feel the time ticking, louder and louder. I was running as fast as I could, it was 1:57 pm. A rush of despair flooded over me.

I'm not going to make it.

* * *

Suddenly, I jolted back awake.

Another nightmare. Remember, you're not in Toronto anymore. You're on vacation. You're on vacation.

I'd fallen asleep on the vaporetto. The slow rocking of the boat calmed me down.

Where was I going? Yes, Rialto Station.

Beginning at Rialto bridge - The rest of the afternoon, a visit to Chiesa di San Lio; Chiesa di Santa Maria dei Miracoli; Chiesa dei Santi Apostoli, that's supposed to be quite beautiful; and to Ca' d'Oro. All walkable within 17 minutes.

I pulled out my phone to look up some information about Ca' d'Oro.

According to Wikipedia:

The palace was built between 1428 and 1430 for the Contarini family, who provided Venice with eight Doges between 1043 and 1676. The architects of the Ca d'Oro were Giovanni Bon and his son Bartolomeo Bon. Following the fall of the Venetian Republic in 1797...

...2:20 pm. It was already lunch time. I opened up Tripadvisor to see my options for food. #3 in town; seemed promising.

Figure 2. The quickest route from point A to B

The vaporetto started to slow down, and we arrived at Rialto Station. It was already getting quite crowded. Walking over to Rialto Bridge, I could see the crowd getting denser and denser. I retreated into an alley, following my directions.

When I looked down at my phone for further instructions, I suddenly realized that I had lost wifi. I paced around to find connection, but it was a lost cause. After a brief moment of panic, I continued along the narrow path.

The narrow streets made me dizzy. It was very early in the morning, a frosty day, so cold I could see my breath as it left my mouth and widened out in the air. The weathered walls rose about me, too narrow to see past. Who could have expected such height and density?

And I hadn't anticipated the sensation of being unplugged from the world or the heightened state of panicked awareness that was, nevertheless, repairable. Without thinking, I slowed my pace, willing myself to be lost, to be alone. I could see an older lady on the narrow path, walking side by side with an older gentleman, their heads together, talking. I watched them take a right-hand turn and disappear behind the wall...

Here in this labyrinth, getting lost, and then found, seemed the whole point, that and the moment of willed abandonment, the unexpected rapture of being blindly led. I observed how my feet chose each wrong turn, working against my navigational instincts, circling and repeating, and bringing on a feverish detachment. This hour of solitary wandering seemed a gift, and part of the gift was an old greedy grammar flapping in my ears: lost, more lost, utterly lost...

Figure 3. The labyrinthine journey through Venice

By now, I had forgotten all about the plans I'd earlier imposed onto myself. I was lost in this new place - the strange smell of the canal; the interplay of light and shadow; the feeling of compression and contraction as I moved through the alleys. I heard myself walking, I felt the texture of the salt-weathered walls. Before I made my way across a small bridge, I noticed a strange detail in the residential block across the water. A seemingly typical residential building stood before me, but I noticed a strange concrete structure piercing through its roof.

I crossed the bridge, through the alley, and into the courtyard, for a closer look.

- Excerpt modified and adapted from *Larry's Party*, by Carol Shields

SPEED

Thanks to the technological revolution, we are able to do everything much faster. Instead of taking half an hour to walk, we can drive to our favourite restaurants in ten minutes; instead of calling, we can text our friends across the sea, allowing us to multitask at the same time; instead of laboriously going through an entire book, we can hit “Ctrl.+F” and find the key words that are meaningful to us. Our society is obsessed with precision, and since the monetization of time, we have become more careful and less forgiving with how we spend our time.

With phrases like: “time is money” and “time is precious”, time has gained a monetary value, and society has come to treat efficiency as one of an individual’s most valuable traits. It is difficult to ignore the irony in the reciprocity between technology and our culture of haste. Digital technology is designed to increase efficiency and therefore, increase the quality of our lives. However, rather than doing so by freeing up time to think and reflect, it has bred a global push toward productivity.

This is a phenomenon that is particular to certain parts of the world. Sociologists have found that, “increasing wealth and... education bring a sense of tension about time.”¹ They suggest that this sense of haste is most apparent in the Western world, where we enjoy, yet suffer from an abundance of information and products, feeling both exhilarated and burdened by too many choices that are offered to us. With the desire to live the most intense and exciting lives, the overload of information makes us feel that we have too little time to see and experience everything.

1 James Gleick. *Faster: The Acceleration of Just About Everything*. New York: Pantheon Books, 1999.

“We have reached the epoch of the nanosecond. This is the heyday of speed.”

- James Gleick, *Faster*

Figure 4. Thanks to the technological revolution, the pace of everything has gotten much faster.

However, when we are productive enough - when we speed up and save enough time - we are rewarded with free time, or what we call: *leisure*.

lei·sure:

1. Time when one is not working or occupied; free time:
‘people with too much enforced leisure’
 - 1.1. Use of free time for enjoyment: increased opportunities for leisure: *‘increased opportunities for leisure’* *‘leisure activities’*
 - 1.2. (leisure for/to do something) Opportunity afforded by free time to do something:
*‘writers with enough leisure to practice their art’*²

Although leisure is a state of mind, the modern dictionary cannot define it without the incorporation of time.³ In fact, time has become the benefactor that “affords one the opportunity” to do something. We have become slaves to time, where even the most personal of concepts, such as leisure, have been commoditized into multi-million dollar industries. They occupy our time by attempting to constantly “sate us” through media such as YouTube, Netflix, Facebook, vacation packages, cable television, magazines, online shopping - the list goes on. We are kept in a constant state of amusement and distraction from our own thoughts.

This acceleration is met with the problem of distraction and the diminishment of quality in our daily lives.

² Oxford Dictionaries, s.v. “leisure,” accessed Decemer 22, 2016, <https://en.oxforddictionaries.com/definition/leisure>.

³ James Gleick, *Faster: The Acceleration of Just About Everything*. New York: Pantheon Books, 1999.

DISTRACTION

The issue of distraction is a growing source of concern in the accelerated society. Our daily lives are infiltrated by film, photography, and social media, designed to deliver maximum - often visual - impact within a short amount of time. The persistent concern over our reliance on technology is that it undermines literacy and capacity for critical thinking. This is apparent when we examine the difference in the daily habits of an average citizen of today and one of the 19th century. Before the development of smartphones and social media, ordinary citizens would take the time to patiently read lengthy debates in the newspaper and engage in well-informed discussions.⁴ This made them well equipped to make decisions that impacted their own wellbeing as well as that of their communities.

In the digital age, we are constantly bombarded with information that is designed to please the eye. Information is often shortened or augmented in order to capture the short attention spans of today's generation, who, according to a recent study by Microsoft, generally lose concentration after eight seconds, in comparison to 12 seconds in the year 2000.⁵

When users become immersed in this colourful, pre-digested data, it makes it difficult for deep understanding, thoughtful reflection or personal interpretation of topics. More and more, our everyday lives seem to be infiltrated by the ingredients that led to the dystopian society of Ray Bradbury's *Fahrenheit 451*; an empty, illiterate society borne out of careless advancements of technology, a society whose citizens have

4 John Miedema. *Slow Reading*. Duluth, MN: Litwin Books, 2009. p29

5 Consumer Insights, Microsoft Canada. Attention Spans. *Microsoft Canada*. accessed March 21, 2017

become so desensitized to their own thoughts by depending on the perpetual stimulation of colourful, fast moving, visually stimulating information.

Figure 5. In the digital age, we are constantly bombarded with information that is designed to please the eye.

LABYRINTH & MAZE

Although the issue of speed and distraction is more prominent than ever, it is not a new phenomenon in our culture. For centuries, people have been practicing meditation to find silence amid the noise of the world. During medieval times, priests often embarked on a journey through a labyrinth for meditative purposes. The winding path led the walkers to believe that they would quickly reach the centre, as they often began the journey with a sense of hope. However, as the journey progressed, the path would take them farther and farther away from the centre. Just when they were about to give up, the labyrinth would take a sharp turn, quickly leading the walkers to their destinations.

A labyrinth is an indirect and arduous path to a clear centre and is often the longest possible route to the destination, labyrinths symbolizing the long and torturous route of the spiritual journey. The paths are non-linear, inefficient and often disorienting, but entail one route from the entrance to the centre. Without the possibility for false options, its long and arduous paths are often used to reach a contemplative state without the psychological discomfort of getting lost.

The concept of a labyrinth is a contradiction in the era of speed, where we seek the shortest and most efficient route possible, with technology aiding this process. By distancing ourselves from the end goal and focusing on the journey, we can begin to slow down our pace, putting us in a more contemplative state. The journey through a labyrinth allows us to become more aware of our surroundings and our thoughts.

Figure 6. A labyrinth

Figure 7. A maze

The terms labyrinth and maze are often used interchangeably.

However, the two represent different ideas. A maze differs from a labyrinth in that it has a complex branches of paths, with possibilities for different routes and dead ends. A maze instills a higher sense of uncertainty and confusion than a labyrinth. A maze is designed to deceive walkers who tread its paths, misleading them into multiple directions.

Both labyrinths and mazes offer the walker a sense of mystery and confusion; a sense of the unknown. Inside these arduous paths, we are comforted by the knowledge that we will eventually reach the end, allowing us to become intentionally lost. We can find peace in being lost and this state of being physically lost, disoriented, confused, offers a way out from the chaos that we often experience from too much information.

Venice has been likened to a labyrinth and a maze, and has served as a place of inspiration for numerous artists, writers and architects. Referring to Venice in his fictional city of Esmeralda, Italo Calvino notes that it is “a network of canals and a network of streets [which] span and intersect each other”. The “shortest distance between two points is not a straight line but a zigzag that ramifies in tortuous optional routes”.⁶ The paths curve and turn, and the angle of the buildings hide what lies beyond, only revealed once we enter the path. Without knowledge of what lies beyond, we are left to explore.

6 Italo Calvino. *Invisible Cities*. New York: Harcourt Brace Jovanovich, 1974. p71

VENICE: LABYRINTHINE CITY

“The paradoxical nature of the labyrinth - [It is] a place of both connection and non-connection, a space of apparently aimless structure, a topology of fear and pleasure...”
[until we discover how to interpret its hidden clues for navigation]

-Nancy M. Clark, “Alternative Cities: Drifting Toward the Labyrinth”

The experience of walking through Venice is composed of two fundamental sensations: compression and release. We experience compression in the narrow alleys, some that seem to go on forever. These confined spaces isolate us, the towering walls seems to compress us from either side, and we continue towards our only clue, the light at the end of the tunnel, a promise toward an opening. Perhaps the alley will lead to another, perhaps even narrower alley. Despite the discomfort we may feel, we are no longer in control, and we must surrender to the environment.

The release offers us a sense of relief, as we finally enter the open space, with everything before our eyes. We can see our surroundings and we are around others again. It is brighter, and safer. Its contrast to the narrowness makes it seem like a larger space. Then we enter the alley again, and this dichotomy continues on and on. Frank Lloyd Wright employed this method in his architecture to encourage continuous movement in the compression spaces, while creating a moment of pause and significance in the release. We go from the state of unknown to the known.

Top Row:

Figure 8. Venice - the labyrinthine city

Mid Row. Left to Right:

Figure 9. Compression of the narrow alley

Figure 10. Release of the courtyard

DÉRIVE

The term *dérive* directly translates into *drifting*, and becomes a powerful strategy in slowing down our pace. The strategy was developed by Guy Debord and the Situationist International as a direct reaction to a cityscape filled with “spectacle”. They defined *dérive* as an “unplanned, unexpected passage through an urban landscape...[where participants stop their daily routines] and allow themselves to be drawn by the attractions of the terrain and the encounters they find there.”⁷ The Situationist Internationals compared Venice to a labyrinth and used it as an ideal site for experimentation. They would drift through the narrow streets, following their senses - through its unpredictable network of streets, alleys, dead ends, canals, bridges, *calle*, *ramo* or *fondamente*. “The *dérive* [becomes a journey through] ambient space and ambient intensities for navigation through the labyrinthine city.”⁸

The notion of *dérive* is different from the stroll of the *flâneur*⁹, “whose journey through the city [is] guided by the gaze; distracted, unconstructive, and ultimately put to use for commodity circulation.” The *flâneur* strolls without purpose, taking in every moving person or item displayed on the windows, and in a sense, his passive observations are made possible by the distractions that exist in the vibrant streetscape. Strolling privileges the visual faculties over the others.

The “spectacle” refers to mass media. A society of the spectacle is one that is controlled by commodities, where its citizens become passive consumers..

The *flâneur* is a literary type from 19th century France, an essential character to paint the streetscape of Paris. It carried rich associations, referring to a man of leisure, an idler, a connoisseur of the street. Between the 1920s and the 1940s, Walter Benjamin incorporated this character in his *Arcades Project*, turning it into an object of interest in the 20th century.¹

7 Guy Debord. Definitions. *Internationale Situationniste #1*. Paris, June 1958. Translated by Ken Knabb.

8 Nancy M. Clark. “Alternative Cities: Drifting Toward the Labyrinth”. 1999 ACSA International Conference. Rome. 1999. p400

9 Walter Benjamin, translated by Howard Eiland and Kevin McLaughlin. *The Arcades Project*. Cambridge (Mass.): Harvard University Press, 2003.

1 Gregory Shaya. The Flâneur, the Badaud, and the making of a mass public in France, circa 1860-1910. Bloomington, IN: American Historical Association, 2004.

am·bi·ence:

1. the character and atmosphere of a *place*.¹⁰

¹⁰ Oxford Dictionaries, s.v. "ambience," accessed Decemer 22, 2016, <https://en.oxforddictionaries.com/definition/ambience>.

The *dérive* deals with a more engaging experience of leisurely walking. It defines a passage through varied ambiances, a built environment defined by sensory and imaginary experiences. So what is ambience?

Ambiance deals with *places* rather than *spaces*, which is distinguished by the interaction required by its users.

“PLACE” IN NEUROSCIENCE

“If two different authors use the words 'red', 'hard' or 'disappointed', no one doubts that they mean approximately the same thing... But in the case of words such as 'place' or 'space', whose relationship with psychological experience is less direct, there exists a far-reaching uncertainty of interpretations.”

- Albert Einstein, Foreword to Max Jammer’s *The Concept of Space*

Although *space* and *place* are undoubtedly linked, the main difference is defined by the interaction required by users. A place is strongly influenced by the way in which we interact with it. For example, two streets divided by a canal are contained in the same space, but the hippocampus¹¹ will treat it as two different places due to our inability to move directly from one street to another. When the two streets are bridged together, they are considered to be extensions of the same place.

hippocampus
is a part of the brain critical to the function of memory and acquiring a sense of place.

A sense of place in the brain is defined by the way in which spaces allow for exploration or movement and not only by the arrangement of the space itself.¹² However, more organic environments such as Venice that naturally allow for exploration rely on mechanisms other than directionality in order to define the representation of place. In their

¹¹ Esther M. Sternberg and Matthew A. Wilson. “Neuroscience and Architecture: Seeking Common Ground.” *Cell* 127, no. 2 (2006): 239-42. doi:10.1016/j.cell.2006.10.012.

¹² Ibid.

Figure 11. *Left.* Two disconnected streets are considered to be two different *places*, although they are contained in one *space*.

Figure 12. *Right.* When the two streets are bridged to connect movement, they are considered to be one *place*.

research paper, “Neuroscience and Architecture: Seeking Common Ground”, Sternberg and Wilson argue that a sense of being, rather than a mere sense of passing through, also plays an important role in the identification of a place.¹³

Our perception and ability to navigate around our physical environment can also affect our function of memory, cognition, problem solving activity and mood.¹⁴ Sternberg and Wilson found that the same part of the brain is activated when navigating around space and when retrieving memory of autobiographical events. This part of the brain is called the hippocampus. “Our memory of events may depend upon a strong sense of place, and by extension, our sense of place may be influenced by the integrity of memories formed there.”¹⁵ In fact, the term, “haptic sense”, is defined by “place” neurons that are activated by a large number of different stimuli, including sight, sound, smell and as well as a strong sense of orientation within the environment.

As a pedestrian city that is full of turns, angles, and dead ends, it is clear why the Situationists chose Venice as a place to practice the strategy of the *dérive*. Venice creates an opportunity to exercise the hippocampus, the complex part of the brain that identifies a sense of place, while helping with recollection. As a city that naturally activates this complex function, Venice becomes an ideal place for a Library of the Mind.

¹³ Ibid.

¹⁴ Ibid.

¹⁵ Ibid.

SERENDIPITY

“You don’t reach Serendip by plotting a course for it. You have to set out in good faith for elsewhere and lose your bearings serendipitously.”

- John Barth, *The Last Voyage of Somebody the Sailor*

Serendipity has been defined as “a happy accident”,¹⁶ “finding out things without searching for it”¹⁷ or “a pleasant surprise”¹⁸ but it is more complex than these descriptions suggest. While serendipity is built on happy accidents, what makes them happy is due to the fact that the discovery is meaningful to us in some way. “It completes a hunch, or opens up a door in the adjacent possible that you had overlooked...It is not truly serendipitous unless it helps you fill in a piece of a puzzle you’ve been poring over.”¹⁹

In his book, *Where Good Ideas Come From: The Natural History of Innovation*, Steven Johnson looks at the history of innovations and identifies serendipity as a key element in new discoveries. According to Johnson, we encounter serendipity when we put ourselves in environments that are unusual or unfamiliar, removing ourselves from

16 Andrew Ferguson. “The Lost Land of Serendip”. *Forbes* Vol 164(8).1999. p193-4

17 James H. Austin. *Chance and Creativity: The Lucky Art of Novelty*. London: The MIT Press. 2003

18 J. Tolson. “A Word’s Eventful Journey”. *U.S. News & World Report* Vol 136(4). (2004). p51

19 Steven Johnson. *Where Good Ideas Come From: The Natural History of Innovation*. New York: Riverhead Books, 2010.

task-based environments. He also suggests breaking out of our regular routines.

While it is a seemingly simple task, in the era of speed, the opportunity for serendipitous encounters are becoming rare. We often set rigorous task-based schedules and often search for the fastest, most efficient route from one point to another. When we do break away from our routine, we are consumed by activities that try to absorb our attention, keeping us in a state of distraction.

According to Nancy M. Clark, “the paradoxical nature of the labyrinth [is that it is] a place of both connection and non-connection, a space of apparently aimless structure, a topology of fear and pleasure.”²⁰ When we slow our pace, and *drift* through Venice, we are not only breaking away from our task-based habits, but we become more attuned to our environment, noticing small details that we would have easily overlooked. Narrative #1 illustrates the journey of a character who finally pulls away from his habit of rushing through the streets, and notices the small opening in the rooftop of the Research Library, a detail he would have otherwise overlooked. He discovers that the calm space of the library is exactly what he needed. The narrative illustrates the impact of practicing the *dérive* within the labyrinthine streets of Venice, and how it can construct situations for serendipity in our physical environment.

20 Nancy M. Clark. “Alternative Cities: Drifting Toward the Labyrinth.” *In La Città Nuova: Proceedings of the 1999 ACSA International Conference*, Deines, Katrina, Kay Bea. Jones, Maurice Cox, and Thomas C. Gelsanliter. p339-401. 29 May-2 June 1999, Rome. Washington, DC: ACSA Press, 1999.

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SLOW READING

One hand limp by his side, the other to his brow, the young Aristotle languidly reads a scroll unfurled on his lap, sitting on a cushioned chair with his feet comfortably crossed. Holding a pair of clip glasses over his bony nose, a turbaned and bearded Virgil turns the pages of a rubricated volume in a portrait painted fifteen centuries after the poet's death. Resting on a wide step, his right hand gently holding his chin, Saint Dominic is absorbed in the book he holds unclasped on his knees, deaf to the world. Two lovers, Paolo and Francesca, are huddled under a tree, reading a line of verse that will lead them to their doom: Paolo, like Saint Dominic, is touching his chin with his hand; Francesca is holding the book open, marking with two fingers a page that will never be reached. On their way to medical school, two Islamic students from the twelfth century stop to consult a passage in one of the books they are carrying. Pointing to the right-hand page of a book open on his lap, the Child Jesus explains his reading to the elders in the Temple while they, astonished and unconvinced, vainly turn the pages of their respective tomes in search of a refutation...

-Alberto Manguel, *A History of Reading*

“We shouldn't have to read *1984*. It's too long, too confusing, and too full of words that no one uses anymore,” argued one of my grade 10 students on our last day of class.

Nothing that has happened in the past 365 days has made me more afraid and emboldened than that statement.

I had asked the class if, as with the Newspeak-besieged citizens of Oceania in *1984*, a struggle to unravel and communicate complex ideas could result in the gradual erosion of those ideas themselves. The student's response lingered in my mind for several days, and for the first time in my 20 years of teaching, I found myself losing sleep over a 10th grade literature discussion.

I brought up this issue to the school board, as we discussed the English literature curriculum. The majority of the students in our classes could read and write, just not well enough to show their critical thinking skills. It was as if they were breezing through the text and not giving enough thought to what they were actually reading.

- Excerpt modified and adapted from “Teaching *1984* in 2016”,
article by Andrew Simmons

1984 NEWSPEAK DICTIONARY

doubleplus - A prefix used to create the superlative form of an adjective or adverb. (i.e. - pluscold and doublepluscold meant, respectively, 'very cold' and 'superlatively cold'. If you want a stronger version of "good", what sense is there in having a whole string of vague useless words like "excellent" and "splendid" and all the rest of them? "Plusgood" covers the meaning, or "doubleplusgood" if you want something stronger still.

doublethink - reality control. The power to hold two completely contradictory beliefs in one's mind simultaneously, and accept both of them. Here is how Winston Smith described doublethink in the novel:

To know and not to know, to be conscious of complete truthfulness while telling carefully constructed lies, to hold simultaneously two opinions which cancelled out, knowing them to be contradictory and believing in both of them, to use logic against logic, to repudiate morality while laying claim to it, to believe that democracy was impossible and that the Party was the guardian of democracy, to forget whatever it was necessary to forget, then to draw it back into memory again at the moment when it was needed, and then promptly to forget it again: and above all, to apply the same process to the process itself. That was the ultimate subtlety: consciously to induce unconsciousness, and then, once again, to become unconscious of the act of hypnosis you had just performed. Even to understand the word 'doublethink' involved the use of doublethink.'

duckspeak - (to quack like a duck). To speak without thinking. Can be either good or bad, depending on who is speaking, and whether they are on your side.

- Excerpt from *1984*, by George Orwell

SLOW READING

This culture of speed is impacting an activity as intimate as reading.

The act of reading was once considered important, unique, even dangerous. It was considered essential for intellectual and spiritual cultivation, and deemed a privilege. Some read for a cause, some read defying the threat of death. In the first century BC, Cicero wrote to his friend Atticus, “reading and writing bring me, not solace indeed, but distraction... Distraction from the noise of the world. A place to think.”²¹ Since then, the noise of the world has amplified – it has gotten louder, faster and more confusing. At a time when we require solace more than ever, reading has become an ancillary act, a mere pastime that contributes little or nothing to the greater good. With an overload of information available on the Web, on magazines, in social media, we are forcing ourselves to adapt our reading habits to consume as much as possible, in as little time as possible. The act of reading has become a distraction in itself.

The art of reading has been critical to our existence because it allowed us to understand and personally interpret the world around us. It is an intimate experience because meaning does not necessarily reside in the text but with the reader, who deciphers and understands it based on his/her “emotion, physical sentience, intuition, knowledge, [or] soul.”²² The interpretation is entirely up to the reader, and as we construct a distinct world in our minds, this intimate autonomy is what makes the activity so enticing. We read to understand the world, and therefore, reading is an essential function of our existence and being.

21 qtd. in: Alberto Manguel. *The Library at Night*. New Haven, CT: Yale University Press, 2008.

22 Alberto Manguel. *A History of Reading*. New York: Viking, 1996. p38

The practice of silent reading, as we know it today, was a true novelty and a foreign concept in the Dark Ages. According to Paul Saenger, a medieval-manuscript expert and a curator of rare books at Chicago's Newberry Library, texts were commonly read aloud because they were written in *scriptura continua*, *writtenlikethiswithoutanyspacing*, which made it very difficult for scholars to read text without sounding out the syllables.²³ The grand study halls of ancient libraries were once filled, not with silence or the sound of scribbling or flipping pages, but with the murmur of hundreds of readers.

The first record of silent reading appears in the 4th century document, Augustine's *Confessions*. St. Augustine marvels at the mysterious reading habits of Ambrose, the bishop of Milan and a respected teacher. "His eyes traveled across the pages and his heart searched out the meaning, but his voice and tongue stayed still."²⁴ With great difficulty and practice, Ambrose had devoted himself to the practice of silent reading, and often retreated to a private space for intellectual and spiritual cultivation. His decision to read silently, which later became common practice, had many implications. In comparison to reading aloud with another person in the room, reading silently meant that it was a solitary act. He was able to establish an unregulated, undistracted relationship between himself and the words allowed him to slow down, stop, or revisit the text at will. The knowledge became intimately his, without immediate interpretations, clarifications, or censorship from a listener.

²³ Paul Saenger. *Space Between Words: The Origins of Silent Reading*. Stanford, CA: Stanford University Press, 2001.

²⁴ qtd. in: Alberto Manguel. *A History of Reading*. New York: Viking, 1996.

By the 12th century, silent reading became common practice thanks to revisions in punctuation, and this new relationship between the reader and the book spawned cultural changes all over the world.

Before silent reading became common practice, the Christian church was mainly preoccupied with establishing a common dogma, as heresies had little following. However, the freedom to read without immediate censorship led to a growth of independent readers and thinkers who challenged the established Christian teachings. By the 12th century, the Church was actively condemning large, well-read heretical groups, who were challenging injustice and corrupt authorities. This revolution of independent thinkers led to political and ideological unrest throughout the 16th century, while opening doors to new ideas for decades to come.²⁵

25 Alberto Manguel. *A History of Reading*. New York: Viking, 1996.

READING HABITS TODAY

This change in the method of reading also shifted the perception of knowledge. Before silent reading, reading was a communal activity. Value was placed upon the sharing of a commonly accepted dogma rather than the development of the individual mind. When readers began to read silently, reading became a private and secret activity. They could read for their own pleasure – to give food to the inquisitive and questioning mind. In a society of silent readers, value is given to the cultivation of the individual mind.

Today, our method of reading has changed, once again – along with our relationship to knowledge. Rather than reading from a physical book, most of our reading time is consumed by the screen. Maryanne Wolf, a developmental psychologist at Tufts University and the author of *Proust and the Squid: The Story and Science of the Reading Brain*, suggests that, “we are not only what we read... we are how we read”.²⁶ She suggests that the World Wide Web enables a style of reading that prioritizes “efficiency” and “immediacy”,²⁷ and that undermines the kind of deep reading that took place when physical books were the common method of reading. When we read from the Web, we become “mere decoders of information”, undermining our ability to read long and complex texts without distraction, and disengaging our minds from their ability to make complex mental connections. While we have access to a wide breadth of information, the capacity for depth dwindles. Without depth, it is difficult to attain knowledge or wisdom.

²⁶ qtd. in: Nicholas Carr. “Is Google Making Us Stupid?” *Yearbook of the National Society for the Study of Education* 107, no. 2 (2008): p89-94. doi:10.1111/j.1744-7984.2008.00172.x.

²⁷ Ibid.

Henry Hitchings, the author of the rather confusingly named *How to Really Talk About Books You Haven't Read*, argues that the internet is “[eroding], slowly, one's sense of self, one's capacity for the kind of pleasure and isolation that has, since printed books became common, been readers' standard experience”.²⁸

Although there are a number of studies that address Google's cognitive impact on the brain, we still lack the long-term neurological experiments that conclusively demonstrate the power of our tools on our ability to think, and what it will mean for us as a society.²⁹ Meanwhile, we are becoming more Google-dependent than ever - we are forming habits that are scattering our attention, and our relationship to reading is becoming less and less meaningful.

28 qtd. in: Nicholas Carr. “Is Google Making Us Stupid?” *Yearbook of the National Society for the Study of Education* 107, no. 2 (2008): p89-94. doi:10.1111/j.1744-7984.2008.00172.x.

29 Ibid.

Figure 14. Without knowledge or wisdom, it is difficult to make decisions that have impact on the greater good.

READING HABITS AND THEIR IMPACT ON LIBRARIES

This ancillary relationship to books and information is reflected in our built environments, through our institutions of reading. Throughout history, the library typology has been reactive, even subservient to trends, technological advancements, and the ever-changing demands of society.

The function of libraries is ever expanding, following the exponential advancement of digital technology - with the rise of e-books and online content. Many existing libraries are reorganizing their spatial layout to reflect the service demands of their community, and many new libraries are conceived as community hubs, with grand reading rooms and open work spaces. However, the library's race towards digitization and democratization has driven it to turn a blind eye to the institution's most important function: reading.

While the persistent trend of grand reading rooms and open floor plans provide users with flexibility, they do not provide the right environment for getting lost in a book. For an activity as intimate as reading, other users of the space become constant distractions. In fact, the persistent popularity of the open concept is not spatial. It is due to the rhythm and use of the space, and the feeling of communion, reading in a collective space.³⁰ Despite the accessibility and flexibility provided by the open plan, this architectural trend indirectly contributes to the current issue of distraction.

30 Justin Wadge. *Library in the Labyrinth* (Unpublished B.Arch. thesis). Cornell University, Ithaca, NY. 2015

OMA's Seattle Central Library illustrates a new vision for the contemporary library. It is a community hub; it provides various programs for the community and spaces for people to work on their personal computers. However, despite its new functions and spaces, it is difficult to find a quiet space for complete focus in its grand reading spaces.

Upon entrance, we can easily identify the library's open relationship with technology and its new public functions. The blue diagrid structure spans across the entire roof, evoking the sense of an infinite space, perhaps a spatial allusion to the endless amount of information available at our fingertips.

The building, in fact, does not have any reading "rooms", but open reading "spaces", all under the same, glazed wall/roof. The book stacks, desks, and couches scattered across the massive floorplate vaguely delineate the functions of these spaces. The uppermost floors contain the main public reading space, featuring groups of couches and a common working space. Instead of a physical enclosure, the bounds of the reading spaces are defined with carpets. Without visual barriers between the couches, readers can see people walking by and hear others talking. The visual distraction is not only from the other users. The glazed façade permits direct sunlight into the space, creating uneven lighting in the reading space. According to OMA, an interlayer of aluminum expanded

stacks reading space

Top Left to Bottom Right:

Figure 15. The Seattle Public Library by OMA. The blue diagrid structure evokes a sense of an infinite space.

Figure 16. Direct sunlight is visually distracting.

Figure 17. Common reading spaces.

Figure 18. The function of reading and browsing bleed into each other.

metal mesh³¹ is employed in order to deflect and diffuse sunlight, but nonetheless allows for light pollution. Alvar Aalto, in the design of his Viipuri Library, eliminated all sources of direct light, creating an “even, indirect light... So that distracting shadows would not fall on one’s open book, and so the bright light would not reflect from the white page back into one’s eyes.”³²

Although there is no doubt that the Seattle Public Library is successful in creating an attractive and engaging public realm, the brightly colored, seemingly infinite diagrids and the vast, open, communal spaces support the type of reading that is scattered and distracted, and fail to provide the sense of visual stability and privacy that is required when engaging in deep, contemplative reading.

The architecture of contemporary libraries reflects and reinforces a social value of communal thought, the culture of Google and the reading habits of a distracted and scattered mind. The architecture of contemporary libraries differs fundamentally from the architecture of libraries when reading was associated with *euthymia*, intimacy and the “awakening of individuality”, which Seneca translates as “tranquillitas”, or tranquility. “Euthymia, memory without distraction, the intimacy of a reading time - a secret period in the communal day”, is what we must seek in a library.³³

euthymia is also the Greek word that means “well-being of the soul”.

31 “Seattle Central Library Curtain Wall Design.” LMN Architects Seattle Central Library Curtain Wall Design Comments. Accessed February 13, 2017. <https://lmnarchitects.com/case-study/seattle-central-library-curtain-wall-design>.

32 Stanford Anderson, Gail Fenske, and David Fixler. *Aalto and America*. New Haven: Yale University Press, 2012.

33 Alberto Manguel. *The Library at Night*. New Haven, CT: Yale University Press, 2008.

THE SLOW MOVEMENT

It seems that as we speed toward this era of haste, an increasing number of people are getting tired of it and are choosing to slow down instead. The first Slow Movement began in 1986 in the food industry, when McDonald's opened another one of their restaurants in Rome. Fed up with fast food and its degrading quality, political activist Carlo Petrini protested by starting Slow Food, an organisation dedicated to promoting the pleasures of eating fresh local foods.³⁴

According to John Mediema, the author of *Slow Reading*, “speed is not [necessarily] anathema to the Slow Movement”,³⁵ and the Slow Movement does not require us to do things as slowly as possible. It is not even necessarily about speed. It protests the loss of quality that occurs through the process of speeding up. Slowing down is about regaining the quality of daily experience, in turn, increasing the quality of life.

The Slow Reading Movement

With an increasing demand for speed the lack of depth in our reading habits has spawned the slow reading movement. This may seem like a strange concept, at a time when slow reading is often linked to slow thinking and mental or physical disabilities.

³⁴ John Miedema. *Slow Reading*. Duluth, MN: Litwin Books, 2009.

³⁵ Ibid.

Slow Reading according to Lancelot R. Fletcher

The concept of slow reading was first popularised by Lancelot R Fletcher, who wrote “SLOW READING: The affirmation of authorial intent”.³⁶ He argues that our reading habits are often preoccupied with deciding what the text means to us, and whether we agree or disagree with what the text says, that we, “generally do not pause to take note of what the sentences we read actually say.”³⁷ This “rush to interpretation” forms the basis of our educational practices, and Fletcher argues for “critical access to [our] own interpretive activity” through the practice of slow reading.

He often tells his students that the text was “written by God - if [they] can't understand something written in the text, it's [their] fault, not the author's.” This method of reading helps us be aware of and overcome our subconscious habit of immediately imposing our own meanings and interpretations on the text that we are reading. By reading slowly, we can “encourage the discovery of authorial content”³⁸ and this way, we are able to step beyond our comfort zones, creating an environment for deep learning.

36 Lancelot Fletcher. “Slow Reading: the affirmation of authorial intent.” Academia.edu. Accessed April 27, 2017. http://www.academia.edu/3568436/Slow_Reading_the_affirmation_of_authorial_intent.

37 “SLOW READING LISTS (and the meaning of SLOW READING).” SLOW READING LISTS (and the meaning of SLOW READING). Accessed January 22, 2017. <http://www.freelance-academy.org/slowread.htm>.

38 Ibid.

Slow Reading according to John Mediema

John Mediema, the author of *Slow Reading*, has a slightly different view. He suggests that slow reading is important because it allows us to bring a more personal reading to the text. He says, “If you want the deep experience of a book, if you want to internalise it, to mix an author's ideas with your own and make it a more personal experience, you have to read it slowly.”³⁹ While stressing the importance of voluntarism in reading, he suggests that by reading at a reflective pace, we can create a richer and more personal interpretation of the text.

Although the movement isn't tied together by a single viewpoint, one thing is clear. The vast information overload and the distracted form of perceiving information are beginning to alarm more and more readers. Keith Thomas, a professor of history at Oxford University, discussed his shock at the way contemporary curricula were adapting to this new hasty method of reading. He wrote, “I don't think using a search engine to find certain key words in a text is a substitute for reading it properly... You don't get a proper sense of the work, or understand its context. And there's no **serendipity** – half the things I've found in my research have come when I've luckily stumbled across something I wasn't expecting.”⁴⁰

In his book, *Where Good Ideas Come From*, Steven Johnson refers to **serendipity** as one of the key ingredients in innovation.

³⁹ John Miedema. *Slow Reading*. Duluth, MN: Litwin Books, 2009.

⁴⁰ qtd. in Patrick Kingsley. “The Art of Slow Reading.” *The Guardian*. July 15, 2010. Accessed January 22, 2017. <https://www.theguardian.com/books/2010/jul/15/slow-reading>.

NEUROLOGY OF READING

Alberto Manguel recalls the first time he ever read words on a page.

“It was like acquiring an entirely new sense, so that now certain things no longer consisted merely of what my eyes could see, my ears could hear, my tongue could taste, my nose could smell, my fingers could feel, but of what my whole body could decipher, translate, give voice to, read.”⁴¹

Reading is a complex activity, and our understanding of the function of reading is still far from complete. However, studies suggest that reading entails at least two stages: “seeing” the word, and “considering” it, according to learned information of a system of visual signs. In order for us to interpret meaning from a text, the brain first sees the text on paper or screen, then reconstructs the code of signs through a chain of connections in the brain and depending on who we are, deciphers that text with either “emotion, physical sentence, intuition, knowledge, [or] soul.”⁴² Reading becomes a complex, labyrinthine, and intimate process of understanding the world and many believe that its complexity compares to the function of thinking itself.⁴³

When we read slowly, we are essentially giving our minds more time to create connections, increasing pleasure and opportunity for serendipitous connections between ideas. Therefore, by reading slowly, we can form a deeper, more meaningful relationship with the text, while increasing pleasure in the process. It can increase comprehension and

41 Alberto Manguel. *A History of Reading*. New York: Viking, 1996. p6

42 Ibid.

43 Ibid.

Figure 19. Reading entails the function of “seeing” and “considering”.

pleasure, while also being able to produce events in the reader, including identification and catharsis, according to Miall and Kuiken, the authors of “A Feeling for Fiction: Becoming What We Behold”.

These profound experiences can change the reader, or what Alberto Manguel refers to as the “awakening of individuality... by men and women who [create] spaces in which their private selves could learn, grow, reflect and be reflected, in dialogue between the singular present and the endless generations past - spaces into which they withdrew from the bustle of social life.”⁴⁴

The space in which we keep our books changes our relationship to them. We don't read books in the same way sitting inside a circle or inside a square, in a room with a low ceiling or in one with high rafters. And the mental atmosphere we create in the act of reading, the imaginary space we construct when we lose ourselves in the pages of a book, is confirmed or refuted by the physical space of the library, and is affected by the distance of the shelves, the crowding or paucity of books, by qualities of scent and touch and by the varying degrees of light and shade. “Every librarian is, up to a certain point, an architect,” observed Michel Melot, director of the Centre Pompidou Library in Paris. “He builds up his collection as an ensemble through which the reader must find a path, discover his own self, and live.”⁴⁵

Figure 20. Reading slowly increases comprehension and pleasure.

⁴⁴ Alberto Manguel. *The Library at Night*. New Haven, CT: Yale University Press, 2008. p188

⁴⁵ Ibid.

The above passage from the *Library at Night*, by Alberto Manguel begins to describe the impact of space on the reading experience. For example, the architecture of monasteries has been conducive to the contemplative and solitary lifestyle of the monks, who devoted “specific periods... For prayerful reading”.⁴⁶ The Cistercian Abbey of Le Thoronet in Provence, France, is an example of slow experiential time. Le Corbusier was deeply influenced by the abbey in his design of the Monastery of La Tourette, attributing “rigorous functionalism, eschewal of decoration, mastery of light”,⁴⁷ as an architectural parti that brought this experience of slowness.

Speed has not only impacted our reading habits, but also architecture and the way that we experience space. Architecture before the Industrial Age exemplified a “benevolent unhurried time”, in contrast to contemporary architecture, which seems to become “increasingly rushed and impatient”.⁴⁸ The monetization of time has led to the commodification of the architectural life-span, slowly replacing the historic notion of permanence in buildings. No longer weighed down with the standard for permanence and longevity; with the development of publications like ArchDaily and the increasingly shortening attention spans of today’s generation, the focus of architectural design seems to rely on the five second highlight. The experience of architecture has been condensed into the “money-shot”, leading to issues of experiential impoverishment and the lack of existential meaning and cultural continuity.⁴⁹ There is an

46 Stuart Murray. *The Library: An Illustrated History*. New York, NY: Skyhorse Pub., 2009.

47 qtd. in: Juhani Pallasmaa. “Inhabiting Time.” *Architectural Design* 86, no. 1 (2016): 50-59. doi:10.1002/ad.2001.

48 Ibid.

49 Ibid.

Figure 21. *Left.* The Cistercian Abbey of Le Thoronet embodies slow experiential time.

Figure 22. *Right.* Publications such as ArchDaily focus on the money-shot, rather than the experience of a building.

inherent, cognitive connection between reading a book and experiencing space. By slowing down the experience of architecture, we can slow down the cultural activity of reading, fundamentally slowing down pace and increasing the quality of life.

ARCHITECTURAL ANALYSIS

Through the analyses of various buildings, we can begin to identify some of the architectural characteristics that create an ideal environment for slow reading.

Figure 24. Phillips Exeter Academy Library.

Figure 25. Santa Maria Della Pace.

Figure 26. Beinecke Rare Book and Manuscript Library.

VISUAL HARMONY

The large central space was common in the design of seventeenth, eighteenth, and nineteenth century libraries, which was meant to “impress upon the reader the accumulated knowledge of centuries available for study... It is a place to pause, to reflect upon the knowledge, history, and tradition embedded in the books”.⁵⁰ By entering suddenly into an expansive space, our visual senses are stabilized, in turn, calming our mental and physical senses.

In both Louis Kahn’s Exeter Library and Bramante’s Cloister in Santa Maria della Pace, we see ample use of proportion (eurythmia), symmetry (symmetria), and order (ordinatio). Vitruvius argued that perfect proportions and symmetry led to a universal and timeless sense of beauty, since these proportions derived from the ‘ideal’ human body, or what he called the ‘truth of nature’. These perfect geometries became the basis for our idea of cosmic order and universal beauty, and while creating strong symbolic connections, becomes an effective method of creating visual harmony.

⁵⁰ William H. Jordy. “Criticism: Kimbell Art Museum, Fort Worth, Texas; Library, Phillips Exeter Academy, Exeter, New Hampshire”. *Architectural Review* 155, 928. June 1974. p330-335.

Exeter, New Hampshire
Louis Kahn
1971

Phillips Exeter Academy Library

In Louis Kahn's Exeter Library, the central hall, with its powerful geometry, light and texture, is a place where the visitor receives the "invitation of books".⁵¹ Unlike the central spaces of its predecessors, Louis Kahn dedicated the grand space to communal exchange, rather than a space to read. The large circular openings, approximately 30 feet in diameter, create tension, tie the books together, and create a perfect window onto the "landscape of knowledge".⁵² The tension, symmetry, and perfect proportions, reinforced by the thickness and strength of the concrete, create a sense of visual stability, perhaps alluding to the stability of knowledge.

The X cross beams are not completely structural, but are important in visually tying together the four walls. The beams also work to diffuse the light in different ways, providing a kind of indirect "blue light" which filters down the top of the central hall. Just as the physical display of the books in the bookstacks is meant to dramatize the library's nature as a storehouse of knowledge, so in Kahn's mind the descent of the blue light dramatizes our encounter with knowledge and truth - not in the collective setting of a classroom, but as an individual, who would set foot in the hall alone.⁵³

Figure 27. X-Beams.

Figure 28. X-beams that tie the four concrete walls together.

Figure 29. Large circular openings tie the books together.

51 qtd. in "The Mind of Louis Kahn". *Architectural Forum* 137. July/August 1972. p76-77.

52 Shannon Mattern. "Geometries of Reading, Light of Learning: Louis I. Kahn's Library at Phillips Exeter." *Nexus Network Journal* 12, no. 3 (2010): p.389-420.

53 Ibid.

Rome, Italy
Donato Bramante
1504

Santa Maria Della Pace

Figure 30. Band of X contains the space.

Figure 31. Proportions in plan.

Figure 32. Proportions in elevation.

Derived from Renaissance ideals of geometric and formal perfection, the monastic cloister of Santa Maria della Pace is a space of repose and silence, a shelter from the distraction and noise of the outside world. The order, rhythm and proportions of the cloister create an ideal setting for a life dedicated to worship and contemplation, and upon entrance, the visitor is led to a moment of pause, then to a slower pace when walking around the cloister.

The church and cloister are located in a Medieval part of Rome and we arrive at the cloister after walking through its twisting, narrow streets. The entrance to the cloister is to the left of the church, through a simple doorway and vestibule. Upon arrival into the cloister, we enter a space filled with calm, order and composure, a dramatic difference from the non-linear and somewhat confusing nature of the streetscape.

The small courtyard, 14 by 14 meters (46' by 46') opens up to the sky and embodies a feeling of both intimacy and monumentality. Similar to Louis Kahn's Exeter Library, Bramante uses an X band of white stone running across the courtyard of black stone, in order to visually contain the space and create tension. The bands of white stone runs all the way to the corners.

The walls of the cloister are composed of warm, yellow-brown stucco and pilasters and columns made of white stone. The dialogue between these two materials create a light and dynamic effect in the facade. Each of the

cloister walls is divided into four bays, spaced 3.5 meters (11'6") apart, which is also the height from the ground to the spring point of the arches. This proportion is repeated in the spring point of the arches to the base of the upper columns and pilasters, then from the upper column bases to the roofline.⁵⁴

The cloister sits on a slightly raised white stone base. The first storey of the cloister is more solid and heavy, where the “rhythm of the arches bind the walls together”,⁵⁵ while the upper floor is more open, composed of a series of white stone columns. The stucco finish of the arches also contributes to a denser, more earthy feeling at the ground floor. Furthermore, the pilasters are embedded into the piers, raised one third of their length above the base of the column. The overall elevation creates a bottom-heavy effect, with visual connection created between the bottom and top floors, creating a kind of “staccato” effect.

54 Robert McCarter and Juhani Pallasmaa. *Understanding Architecture: a Primer on Architecture as Experience*. London: Phaidon Press Limited, 2012.

55 Ibid.

Figure 35. *Left*. Glass tower of books reflects the grid of the exterior.

Figure 36. Platonic Dimensions of the solid exterior shell.

Beinecke Rare Book and Manuscript Library, Yale University

Figure 33. Width 1:2:3

Figure 34. Height: 1:2:3
Length 3/3: 1:2:3

In the Beinecke Library, designed by Gordon Bunshaft of Skidmore, Owings and Merrill, a six-storey glass tower of book stacks is encased within a solid, rectangular shell. Rigorous geometry is employed both on the interior and exterior of the building. The exterior of the building has Platonic dimensions of 1:2:3 (height: width: length), which is made of blocks of translucent Vermont marble panels. These panels diffuse direct sunlight, protecting the books in the interior. The solid rectangular cube is supported on four concrete piers at its corners, casting a thin shadow beneath the solid mass. Sitting in a large open courtyard, the building's rigorous proportions command presence and draw our attention.

The glass tower of book stacks sits inside the building, reflecting the grid of the stone panels. The rigorous order and rhythm of the grid is employed on the interior walls, ceiling, and onto the object of focus, which is the bookstacks, and stabilizes our senses before we enter the reading space.

RHYTHM

Figure 37. Rhythm at the Exeter Library

Figure 38. Rhythm at the cloister of Santa della Maria Pace

Phillips Exeter Academy Library

The openings at the ground floor expose a “deeply shadowed arcade”.⁵⁶ The access point being at the north side, the arcades on all sides pull us in and bring us through a slow, rhythmic experience of light and shadow. This interior-exterior space, at the perimeter of the building, prepares us physically and psychologically before entering the library. Some suggest that this is a “symbolic rite-of-passage”⁵⁷ to enlightenment. In order to reach the reading space, we must walk through the same slow and rhythmic experience in the colonnades. This journey through the colonnades clearly distinguishes the function of reading and browsing, and psychologically prepares us for the “other” state, the private study.

56 Robert McCarter. *Louis I. Kahn*. New York: Phaidon. 2005.

57 Shannon Mattern. “Geometries of Reading, Light of Learning: Louis I. Kahn’s Library at Phillips Exeter.” *Nexus Network Journal* 12, no. 3. 2010. p.389-420.

Figure 39. Passage through a series of colonnades in order to reach the entrance.

Figure 40. Rhythm in Plan.

Figure 41. Passage through a series of colonnades in order to reach the carrels.

Santa Maria Della Pace

Figure 42. Arcade at grade

Figure 43. Rhythm in Plan

Figure 44. Arcade on second level

Once the visual senses have been stabilized by the perfect proportions of the courtyard, we enter into the arcades on the ground floor walkway. The cross vaults and the upper portion of the walls are finished in a lighter yellow plaster than the yellowish brown of the walls, distinguishing the ceiling from the walls, and the curvature of the cross vaults catching the light throughout the day. The white stone piers on either sides of the walls carry the cross vaults, and a white band of stone on the floor connects the two pilasters together. “We walk slowly around the ground floor arcade, the cadence of our steps matching the rhythm of the piers, while the arches and cross vaults move with us from one bay to the next. We feel the way the building quietly engages us as we move, the various horizontal and vertical elements of the courtyard walls aligning and realigning in ever-changing relations, based on our moving viewpoint.”⁵⁸ The light, texture, and rhythm of the arcade gently move us along the space.

⁵⁸ Robert McCarter and Juhani Pallasmaa. *Understanding Architecture: A Primer on Architecture as Experience*. London: Phaidon Press Limited, 2012. p203

Figure 45. *Top.* Narrative Sequence in Santa Maria Della Pace

Figure 46. *Bottom.* Narrative Sequence in Phillips Exeter Academy Library

NARRATIVE SEQUENCE

In *Architecture and Disjunction*, Bernard Tschumi describes program and event as forming the basis of architectural sequence. He refers to Mies van der Rohe's Barcelona Pavilion (1929), and illustrates the journey of someone passing through the pavilion, indicating the series of moments through the articulation of architectural elements.

Earlier in the chapter, we discussed how contemporary libraries were beginning to fuse the function of socializing, browsing and reading, with the emergence of large, open working spaces. The following case studies illustrate how different moments are highlighted through the sequence of architectural elements.

Phillips Exeter Academy Library

Before entering the library, we are drawn into the brick colonnades. Upon entry, the visitor's eye is drawn to the grand double circular staircase, with a beautiful marble facing. The ceremonial function of the staircase is reminiscent of the grand staircase of the Laurentian Library by Michaelangelo. (Florence, Italy. 1559) We then enter the grand central hall, where its sudden expansion and perfect proportions instill a moment of pause. In the upper floors, we have access to the stacks. As we move toward the stacks, we still remain in visual contact with the grand hall, through balconies overlooking the space. After using the stacks, the we then move towards the study carrels, toward a more “prosaic white light”,⁵⁹ illuminated by the high, two storey windows. However, before we reach our study carrels, we walk through the colonnade once again, which also delineates the study carrels and the reading areas.

59 Jay Wickersham. *The Making of Exeter Library*. Harvard Architecture Review 7. 1989. p138-49.

Left:
Figure 47. Narrative sequence in the Phillips
Exeter Academy Library

Right:
Figure 48. Plan showing narrative sequence

In addition to the complex spatial differentiation, Kahn uses “patterns of spatio-luminous organization”⁶⁰ to delineate the distinct spaces: the stacks are held in the darker areas and the study carrels are luminous with daylight. These lighting strategies present an “experiential interpretation”⁶¹ of enlightenment, acknowledging that books and activities are “threaded with’... Tactility, view, footfall, passage, etc. Knowledge is a journey and light calls forward”.⁶² The narrative “passage” through the building is articulated with materials, light, and space, which highlight the transition from communal to individual; browsing to reading; all while slowing down the pace of movement.

60 Brook Muller. “Metaphor, Environmental Receptivity, and Architectural Design” in *Symbolic Landscapes*, Gary Backhaus and John Murungi, eds. p185-203. New York: Springer. 2008.

61 Ibid.

62 Ibid.

PUBLIC

ΔT

PRIVATE

ΔPRIVACY / INTIMACY
ΔLIGHT
ΔTEXTURE
ΔSPACE

RHYTHM

CEREMONIAL STAIRCASE

PAUSE

MOVEMENT THROUGH THE
STACKS

PRIVATE STUDY

Santa Maria Della Pace

The journey into the cloister of Santa Maria della Pace begins with a labyrinthine journey through the narrow streets of Rome. Upon entering the arched doorway, we catch a glimpse of the courtyard. When we step into the courtyard, the proportions and harmony instill a moment of pause. Then we walk around the arcade, its rhythm slowing us down. Once we have circulated around the arcade, we return to the entry point, from which we can go upstairs. The walkway on the upper floor matches the width of the one below, but has a flat ceiling lined with wood beams. The stone columns match the spacing of the arcades below, while stone piers are placed at its mid-intervals. The upper floor feels more open. We are finally invited to nestle in between the two columns, with views down into the courtyard.

Left:

Figure 49. Narrative Sequence in the cloister of Santa Maria Della Pace.

Right:

Figure 50. Plan showing narrative sequence.

NESTLING

Figure 51. Exeter Library
The carrels are made of warm, light wood.

Figure 52. Cloister of Santa Maria della Pace
Recessed depth of the wall creates a perfect nook for reading.

Phillips Exeter Academy Library

The reading carrels are located at the periphery of the building. The carrels are made of warm, light wood, and become intimate and private spaces, that enjoy natural light and proximity to the books. The carrels also include a locking cabinet for storage, which allows the users to stay at the carrel for a longer time, without fear that their belongings will be stolen. The study carrels are reflected on the exterior of the buildings as well. Beneath each of the large windows, which are inset into the large brick wall, are smaller windows flush to the wall, with unfinished teak panels. These smaller windows indicate the study carrels, while the larger windows illuminate the mezzanines and the spaces deeper inside. The “size and proportion of... each fenestration unit is based on the human figure... This body-centred approach” suggests that the “reader will always be sheltered within an architectural environment that is given intimacy and human warmth by proportional concordance with his own body”.⁶³ The teak panels, which add a layer of warmth to the massive building, are perhaps also an indication of the close relationship being created between the reader and the book, the individual and his knowledge.

63 Shannon Mattern.- “Resonant Texts: Sounds of the American Public Library.” *The Senses & Society* 2, 3. Fall 2007. p277-302

Figure 53. Smaller sizes of bricks, large window openings

Figure 54. The carrels are made of warm, light wood.

Santa Maria Della Pace

Figure 55. We must step onto a “platform”, separating ourselves from the movement within the cloister.

Figure 56. Recessed depth of the wall creates a perfect nook for reading.

Figure 57. We can comfortably overlook the courtyard.

The piers and columns are set 1.2m (4') off the floor, housing between them pairs of seats recessed 1.2m (4') wide. This recessed depth of the courtyard wall creates a perfect nook for reading. The nook is raised 23cm, where we must step onto a “platform”, separating ourselves from the movement within the cloister. From that point, the seating is approximately 43cm high, equal the height recommended by Corbusier's ideal proportions for seating.⁶⁴ However, the wall on the monk's left, only comes up 97cm, which is somewhere in between Le Corbusier's ideal height (86 and 113cm) for railings. This speaks to the fact that this condition is designed specifically for sitting, where we can comfortably overlook the courtyard. The architecture envelops us, allowing us to rest our backs on the structural base, the natural light illuminating the pages of our books. This nestling of the reader by the architecture reflects Louis Kahn's idea that the “reader will always be sheltered within an architectural environment that is given intimacy and human warmth by proportional concordance with his own body”.⁶⁵

⁶⁴ Le Corbusier. *The Modulor*. London: Faber and Faber, 1954.

⁶⁵ Shannon Mattern.- “Resonant Texts: Sounds of the American Public Library.” *The Senses & Society* 2, 3. Fall 2007. p393

Laurentian Library

Similar to the raised reading nooks recessed into the walls of the cloister at Santa Maria della Pace, the tall desks sit on wooden platforms, raising the desks 15cm (6") off the floor. The height of the seats are 46cm, slightly taller than what is considered comfortable for the human body according to the anthropometric height of 38cm. The depth of the seats is also slightly shorter than the 48cm recommended by Francis Ching in *Form, Space and Order*.⁶⁶ This arrangement seats the reader in a more upright position, appropriate for reading heavy manuscripts in a time when reading was deemed a serious activity.

The tilted book supports of the desks would house "large, heavy, hand-copied, leather-bound manuscripts",⁶⁷ and three or four of these books were often chained to the desk for fear of theft. Although the desks are no longer accessible to the public, we can imagine the kind of bodily movement required in order to access the precious books.

We can imagine the 16th century scholars stepping onto the wooden platform, bending their knees, sliding themselves into the tight wooden spaces. Once they have reached their desired page, the light from the window illuminates the page, the massive book containing the reader's entire field of vision. The arrangement creates an intimate relationship between the reader and the book, where readers must "literally bow down to enter the home of the book".⁶⁸

Figure 58. The arrangement creates an intimate relationship between the reader and the book, where readers must "literally bow down to enter the home of the book".

Figure 59. Heavy manuscripts were read in the library.

66 Francis Ching. *Architecture: Form, Space, and Order*. New Jersey: Wiley et Sons, 2015.

67 Robert McCarter and Juhani Pallasmaa. *Understanding Architecture: A Primer on Architecture as Experience*. London: Phaidon Press Limited, 2012. p263

68 Ibid.

Figure 61. Diagram showing degrees of privacy in Exeter Library, Library of a Poet, and Viipuri Library

DEGREES OF PRIVACY

SEPARATION #1

SEPARATION #2

SEPARATION #3

Phillips Exeter Academy Library

In order to give form to the “fundamental desires of reading and learning”, Kahn “[literally inverts] the traditional library programme and plan type” by turning inside out “the habitual separation of the central reading room from the peripheral book stacks”; placing the reading spaces at the periphery and keeping the books “within, protected from the natural light”.⁶⁹ Kahn retains the traditional idea of a grand central space, but transforms its function into a communal space, rather than a reading space. These three spaces are treated with distinct materiality and scale, while retaining dynamic relationships between each other. The book stacks provide a buffer between the private and public functions and in turn, the reading spaces become the more private, creating intimacy between the reader and the book.

69 Robert McCarter and Juhani Pallasmaa. *Understanding Architecture: A Primer on Architecture as Experience*. London: Phaidon Press Limited, 2012.

Figure 62. Degrees of separation at the Exeter Library

ΔPRIVACY / INTIMACY
ΔLIGHT
ΔTEXTURE
ΔSPACE

SEPARATION #1

SEPARATION #2

SEPARATION #3

Library of a Poet

There are intrinsically inviting qualities about a physical book that cause bibliophiles to keep extensive collections, despite the obvious physical and spatial demands of the book. The tangibility, texture, weight; its sign of age, traces of its previous owner, its history; all combine to give the book a certain aura. In Shigeru Ban's Library of a Poet, the physical presence of books is taken to a functional and metaphoric level, making up the structure, protection, and texture of the building.⁷⁰

At a much smaller scale than Exeter Library, Shigeru Ban provides various degrees of privacy in the Library of a Poet. The first level of removal happens, with the walls, or the shelves of books. Four custom-made, full-height bookshelves make up the two sides of the walls, and create an overpowering presence in the open space. The shelves metaphorically and physically separate us from the outside world. The second level of removal appears with the large box that houses the kitchen, storage and removable bookshelves. We must walk up the stairs in order to reach the top of the box, where we can overlook the space from above, and views out to the forest through the clerestory windows. The third level of removal appears with the benches - the simple wooden benches provide comfortable seating space.

⁷⁰ Matilda McQuaid. *Shigeru Ban*. London: Phaidon, 2003.

Figure 63. Degrees of separation at the Library of a Poet

Through the clerestorey windows, the flood of light illuminates the pages of the book, and we sit close to the top shelves of books and the paper tube trusses, and we are able to lose ourselves not only in the story, but the tactility and texture of the book.

ΔPRIVACY / INTIMACY
ΔLIGHT
ΔTEXTURE
ΔSPACE

SEPARATION #1

SEPARATION #2

SEPARATION #3

Viipuri Library

The building evokes the “monumental isolation and psychic clarity of the summit”.⁷¹ Despite its simple plan, it is the sectional experience of the building that achieves complexity. The building has a slow procession from the visually distracting outside world, into the internalized quiet world of the library.

We first enter the foyer, towards a brightly illuminated staircase, slowly ascending into a large, double height, expansive room. The information desks fall away from view, deferring to the multi-level, dynamic space. The ceiling height also steps up at this point, further expanding our view. This “peak” recalls the image of a summit. One of the most quiet and calming spaces is the double-height reading room sunken into the ground. It is designed to provide an “externally closed character” by physically confining the depths of the floor, and blocking views to the distractions of the world. The space is intimate, containing no more than two or three round tables. The perimeter walls are lined with book stacks, which absorbs the sound from the seemingly open space. The perimeter walls are also packed with sound absorbing materials, creating a submerged world of silence. According to Aalto, this is the place where “books and people meet”.⁷²

71 Alvar Aalto, Stanford Anderson, Gail Fenske, and David Fixler. *Aalto and America*. New Haven: Yale University Press, 2012.

72 Alvar Aalto, “Municipal Library in Viipuri: Description of the Building's Construction,” *Municipal Library, Viipuri*. 1997.

Figure 64. Degrees of separation at the Viipuri Library

ΔPRIVACY / INTIMACY
ΔLIGHT
ΔTEXTURE
ΔSPACE

SEPARATION #1

SEPARATION #2

SEPARATION #3

Left to Right.

Figure 65. Seattle Public Library
Figure 66. Thomas Fisher Rare Books Library.
Figure 67. Warburg's Private Library

BROWSING

Browsing can be an intrinsically pleasant experience, providing moments of serendipity, leading readers to unexpected discoveries. Browsing is a luxury that many people have forgotten they can afford. Browsing is also an intuitive action, driven by visual and tactile curiosity. A reader may be drawn to the title, the thickness or length of the book or the texture of the spine, an intuitive process that is lost when pre-selecting a book online. Furthermore, like anything driven by curiosity, it is a voluntary action. Similar to how slow reading can become a source of great pleasure when done voluntarily, browsing is a hidden luxury for those who make the time to slow down and allow their senses to guide them. Similar to the role of the arcades in slowing down movement, the experience of slowly browsing through the stacks can help users to psychologically prepare themselves to their readings and studies.

Seattle Public Library

Seattle, WA
LMN Architects / OMA
2014

The Seattle Public Library attempts to retain the traditional idea of browsing in the organization of its stacks. From the sixth floor to the ninth, a continuous spiraling passage of books is implemented to allow users to ramp up or down, and browse through the stacks in a less mechanized manner than the one enabled by the online cataloguing system. Although the fluidity of the spiral is a seemingly ideal design solution for browsing, the ramp runs perpendicular to the stacks, meaning that users don't have visual connection to the books as they are walking up the ramp. As we will discuss in the next two case studies, browsing can lead to serendipitous encounters when the books are positioned to follow the natural movement through the space. The perpendicular relationship between movement and stacks forces users to turn in from their path in order to access the books, and at a closer look, the organizational strategy becomes not very different from that of the standardized system.

Furthermore, the stacks take up four storeys of the library, without space within the area to sit and read. One of the issues when browsing through the stacks is that the time for flipping through a new title is limited by the length of time the reader is willing to stand between rows of stacks. In most cases, this is not enough time for the book to draw in the reader. If small seating spaces were provided around the stacks, users could easily sit down and comfortably read through a book with more leisure.

Figure 68. Spiral of Stacks

Figure 69. Stacks run perpendicular to path of movement

Figure 70. Dewey Decimal System method of organisation

Toronto, ON
Mathers and Haldenby
Warner, Burns, Toan and Lunde
1973

Thomas Fisher Rare Books Library

Figure 71. The widely caricatured "peacock".

Figure 72. Parallel movement across the book stacks allows for a fluid browsing experience.

Figure 73. Atrium of the Thomas Fisher Rare Books Library

The Thomas Fisher Rare Books Library is a secret gem inside the Brutalist structure, the Robarts Library at the University of Toronto. It encompasses one of the two hexagonal forms that anchors the large triangular mass, which is also the image of the "peacock" that has become so widely caricatured. One of the many things we notice upon entry is its silence. It is as if the thousands of books that enclose the space have absorbed the sound in the air. We walk onto a hexagonal floorplate that hovers over two storeys, and we stop to marvel at the dimly lit atrium, surrounded on all sides by six levels of books, reached by a gangway on each floor. Concrete columns soar up the height of the atrium to support the roof, where the clerestory windows dimly illuminate the top of the vast space. The bookshelves line the walls, the spines facing parallel to the direction of movement. In order to reach a book, we must walk around the gangway, passing a number of books in order to reach the final destination. Although the library is organized according to the Library of Congress Classification system, the parallel movement across the book stacks allows for a fluid browsing experience. Here, the search for a book feels very much like a ritual.

Aby Warburg's Private Library

“As Warburg imagined it, a library was above all an accumulation of associations, each association breeding a new image or text to be associated, until the associations turned the reader to the first page. For Warburg, every library was circular.”

- Alberto Manguel from *The Library at Night*

Figure 74. Plan of Warburg's private library.

Aby Warburg was a German scholar who developed new concepts in the understanding of the cultural expression of human consciousness and behavior. He believed that the common method of organizing a library - alphabetically, chronologically, or by subject - was too mechanical and that it was replacing the “much more scholarly familiarity which is gained by browsing.”⁷³ He understood the importance of the “law of the good neighbor”, where often, the book that one needs is not the one he’s searching for, but the “unknown neighbor on the shelf”⁷⁴ that would provide the vital information, or a “hunch” to connect with a another “hunch”, through what Johnson calls, “architecture of serendipity”.⁷⁵

“hunch”:

“Like any other thought, a hunch is simply a network of cells firing inside your brain in an organized pattern. But for that hunch to blossom into something more substantial, it has to connect with other ideas. The hunch requires an environment where surprising new connections can be forged: the neurons and synapses of the brain itself, the larger cultural environment that the brain occupies.”¹

“architecture of serendipity”:

“Physical limitations of the print newspaper, which forces you to pass y a collection of artfully curated stories on a variety o topics, before you open up the section that most closely matches your existing passions and knowledge.”²

73 Susanne Bieri and Walther Fuchs. *Bibliotheken Bauen: Tradition und Vision = Building for Books: Traditions and Visions*. Basel: Birkhauser, 2001.

74 Alberto Manguel. *The Library at Night*. New Haven, CT: Yale University Press, 2008. p202

75 Steven Johnson. *Where Good Ideas Come From: The Natural History of Innovation*. New York: Riverhead Books, 2010.

1 Steven Johnson. *Where Good Ideas Come From: The Natural History of Innovation*. New York: Riverhead Books, 2010.

2 Ibid.

Figure 75. The elliptical plan of Warburg's personal library allows for a fluid browsing experience.

Figure 76. Interior view of Warburg's private library

Warburg's organisational principle was not only a method of research, but a carefully devised navigation to understanding the "thought of mankind, in its constant and changing aspects."⁷⁶ Constantly arranging and rearranging his books following his lines of thought, the organisation of the stacks became fluid and flexible, just like the human mind.⁷⁷

In his library, Aby Warburg tried to capture the fluid and dynamic movement of the human mind, and these objectives were spatially reflected in the plan of the library. Warburg conceived the plan in the form of an ellipse, in reference to Kepler's second law. Kepler's second law disproved the common belief that the planets moved in a circular motion and substituted the circle with an ellipse, thus debunking the argument for the centripetal position of the earth. For Warburg, this highly symbolic shape represented the progress of human thought, but it also created a fluid, edgeless condition that allowed him to move from one book to another, coming across unexpected books and creating new serendipitous associations.

⁷⁶ Susanne Bieri and Walther Fuchs. *Bibliotheken Bauen: Tradition und Vision = Building for Books: Traditions and Visions*. Basel: Birkhauser, 2001.

⁷⁷ Ibid.

MYSTERY

“The most beautiful thing we can experience is the mysterious. It is the source of all true art and all science. He to whom this emotion is a stranger, who can no longer pause to wonder and stand rapt in awe, is as good as dead: his eyes are closed.”

-Albert Einstein, *Living Philosophies*

Figure 78. The Grand Canal on a foggy day.

...When I had announced to my family that I was leaving for Venice, my grandmother, who had lately become quite confused, suddenly lit up and insisted that I stay in a neighborhood called Cannaregio. She began recalling old memories of her childhood in the Jewish ghetto of Venice. I wasn't sure which part of her story was real or one of Grandma's crazy dreams.

...I arrived in Venice on a cold January morning. A cloud of fog covered the air, and I could barely make out the silhouettes that were the buildings. An air of mystery took me over, but I couldn't quite find the word for this fleeting sensation. It struck me that my language may not yet have evolved to the point where it represents my emotions fully. Recognizing this gap brought me a rush of anxiety. Are we all waiting, longing to hear "something" but not knowing what it is?

Figure 79. Ghetto Nuovo etching and scene.

I headed toward my hotel in Cannaregio and after I dropped off my luggage, I dragged my tired self to the Ghetto Nuovo, a place where Grandma seemed to clearly recall attending Saturday sabbath. Ghetto Nuovo, was exactly the same as the old etching that Grandma had shown me - her only physical evidence of her dreamy birthplace. However, as I searched for a synagogue, I realized that Grandma had replaced her memory with one of her dreams, as I did not see a sign of any synagogues in the area. Nevertheless, I stood in the square, trying to imagine it bustling with Jews who had made their home in this strange place.

Figure 80. German Synagogue in Ghetto Nuovo

As I stood in the midst of fog, I saw one, two, men with Kippahs on their heads, dressed in suits, hurrying into one of the old buildings in the square. I followed them into the building, up the stairs, and after scaling three flights, I reached a door, where I heard voices singing. I pushed through the door, to find a glorious room colored in gold, with red curtains, daylight pouring in. Here, hidden from the outside world, I had found the synagogue.

After a day that seemed like a dream, a trick of the mind, a mirage, I headed for the library. A few steps out the door, I noticed that the water had risen, all the way up to street level. What a strange sight. It was as if the buildings had no foundation; as if they were floating on a thin layer of land, on the water whose depth I could not fathom. The buildings reflected off the water, creating an ephemeral double world in the midst of the cloud of fog. The surreal sight seemed to mock my fundamental understanding of gravity, of reality. As I drifted through the narrow streets, the cold air striking my nostrils, I felt myself willingly surrender to the unknown. I embraced these new sensations, these new feelings I could not name.

Figure 81. Scene of Cannaregio during *acqua alta*.

As I followed the directions I had been given by the concierge, I noticed my unusually slow pace, one foot before another. I followed the irregular calle, ramo, fondamente. I walked up and down the bridge, walked through darkness and light, through narrow alleys and expansive courtyards. As I neared the library, I noticed all the clutter, all the thoughts in my head, slowly clearing.

...I thought I was mistaken when my map told me that I had reached the library. It was just another residential building, like any other in the neighborhood.

Figure 82. The research library looked like any other residential building in the area.

KNOWN VS. UNKNOWN

In his 1925 essay “Radiant Fatherhood: An Old Father's Confession of Superiority”, Lincoln Steffens wrote that, “It is our knowledge — the things we are sure of — that makes the world go wrong and keeps us from seeing and learning.”⁷⁸

We are familiar with this sentiment from Plato's Allegory of the Cave, which raises some fundamental questions about knowledge and our relationship to it. Our culture often puts knowledge on a pedestal and treats it as the ideal truth. We tend to cling to what we know, although our knowledge is often incomplete and subjective. Umberto Eco, novelist, philosopher and semiotician, extends this view toward semiology. He argues that our language, our system of signs and symbols, is perhaps the highest form of established knowledge. We rarely question why or how we have come to use the words that we use, despite their undeniable impact on the way that we perceive the world. Therefore, in Eco's lifelong pursuit, *The Search for the Perfect Language*,⁷⁹ he sought mystical and esoteric sources, and “never serious science”, for direction in his research. “[He had] come to believe that the whole world is an enigma, a harmless enigma that is made terrible by our own mad attempt to interpret it as though it had an underlying truth.”⁸⁰

78 Lincoln Steffens. “Radiant Fatherhood: An Old Father's Confession of Superiority”. 1925.

79 Umberto Eco. *The Search for the Perfect Language*. Oxford, UK: Blackwell, 1995.

80 Umberto Eco. *Foucault's Pendulum*. San Diego: Harcourt Brace Jovanovich, 1989.

Figure 83. "Ideal" Proportions

VS

Figure 84. Plato's Allegory of the Cave

AURA

In his essay, “The Work of Art in the Age of Mechanical Reproduction”, Walter Benjamin compares art before and after the advent of mechanical reproduction. He argues that modes of art, such as photography, whose value does not rely on the authenticity of the original, but on its reproducible nature, lacked an aura. He describes aura as “the unique phenomenon of a distance,”⁸¹ and illustrates a mountain range in the horizon on a particular summer day. In that particular moment in time and place, with the summer breeze brushing against the skin, we can experience the aura of those mountains.

However, a contemporary phenomenon is our desire to “pry an object from its shell”.⁸² We crave closeness to an object, to be able to see it and examine it, even if it means destroying its magical quality due to its fleeting presence. By replicating objects, we can carry them anywhere any time, but, “even the most perfect reproduction... is lacking in one element: its presence in time and space, its unique existence at the place where it happens to be.”⁸³ By detaching the objects from their specific temporal, physical and cultural contexts; by turning a unique object into an infinitely replicable one, the object loses its transient and fleeting character.

This loss of aura also represents a change in social values. Contemporary society values equality of objects over uniqueness,

aura:

The distinctive atmosphere or quality that seems to surround and be generated by a person, thing, or place.¹

1 Oxford Dictionaries, s.v. “aura,” accessed April 25, 2017, <https://en.oxforddictionaries.com/definition/aura>.

81 Walter Benjamin. “The Work of Art in the Age of Mechanical Reproduction.” in *Illuminations*. Edited by Hannah Arendt. Translated by Harry Zohn. London: Fontana, 1973.

82 Ibid.

83 Ibid.

and their availability to the masses over the precious possession to a sole owner. As works of art become detached from rituals, they cease to be valued for their unique existence, rather for their availability to be seen by the largest number of people.

A similar phenomenon is occurring with information. In the time when books were hand-written over months of toil, when they were vulnerable to fire and decay, it was not only the content of books, but their physical existence that was held in high value. Books were chained to desks to discourage theft, even hidden away in secret cabinets, to be enjoyed by the privileged reader. These books had an aura, a transient and magical presence that captivated readers and brought them closer to the information presented to them. In today's information age, where texts can be easily copied with the click of a mouse, where information is accessible through multiple vehicles, and where information is virtually ceaseless, ageless, and boundless, information itself has lost its aura and sacred value.

This loss of aura is further expressed in our cities. When objects hold a sacred value, the tendency is to hide them away, for fear of damage or decay. When we begin to value an object for its ability to be seen by the largest number of people, the tendency is to draw attention to it and express it. Cities today are characterized by their streets, with building facades designed to express and exaggerate the interior functions. This detaches any sense of mystery or wonder within our built environments, which is perhaps one of the reasons why people are so drawn to Venice.

VENICE: MERCURIAL CITY

While being an extensively discussed and documented city, Venice retains an eternal sense of mystery and it preserves its secrets by disguising them from the tourist guidebooks. Tourism has infiltrated Venice, its permanent residents accounting for only one third of the average daily population of 150,000. Venice has become a cliché in the world's imagination, tourists hunting to capture the Venetian icons that they have seen in photos and magazines. They come searching for images – a shot of San Marco Square, of Rialto Bridge, or a shot of men in striped shirts rowing gondolas. Venice has become a commodified image, drowning in clichés, commercialism and sentimentalism. However, “icons are not histories or phenomena”⁸⁴ and those who come to Venice to fulfill their idea of Venice are not interested in the history behind the Venetian facades or the slow experiential quality of Venice.

drifting is the English word for the *dérive*, an “unplanned, unexpected passage through an urban landscape, where participants stop their daily routines and allow themselves to be drawn by the attractions of the terrain and the encounters they find there.”

Refer to p30 - 'Speed and Distraction'

Venice is not the only victim of this culture of icons. Our culture is obsessed with images – we spend most of our time scrolling through countless images that have been augmented in order to draw our attention. However, the issue with this phenomenon is its lack of depth. Everything is at face value, and everything that we need to know is displayed right in front of us. In fact, our built environments are beginning to adapt to this attraction to imagery. According to Juhani Pallasmaa, architecture is becoming “increasingly rushed and impatient”,⁸⁵ the focus of architectural design seeming to rely on the five second highlight. The experience of architecture has been condensed

84 Giulia Foscari Widmann Rezzonico, forward by Rem Koolhaas. *Elements of Venice*. Zürich, Switzerland: Lars Müller Publishers, 2014.

85 Juhani Pallasmaa. “Inhabiting Time.” *Architectural Design* 86, no. 1 (2016): 50-59. doi:10.1002/ad.2001.

Figure 85. A typical sentimental memento of Venice

Figure 86. The “idea” of Venice often prevents visitors from seeing the real Venice

to the image, leading to issues of experiential impoverishment. Venice, “a place of both connection and non-connection, a space of apparently aimless structure, a topology of fear and pleasure, [which] embodies the [ideal] environment for constructing situations,”⁸⁶ a labyrinthine city for drifting, has been subject to this visually obsessed culture, which fundamentally impacts the way that we view and experience the city.

This is a paradox since the main reason for visiting Venice is to experience the imaginary world distinct from our own, the “fantastic mutation of normal reality”.⁸⁷ It is the strange world that tourists come for, but they are unable to truly experience it, as they are deceived by the *idea* of Venice. The city camouflages itself through its clichés, the collective perception. Images have turned Venice into a static entity - the romantic gondola ride in the canal; a dinner in San Marco Square; the view from the Doge's Palace - but its secrets are revealed when we try to create our own sense of place and meaning of the city through exploration and personal experience.

⁸⁶ Nancy M. Clark. “Alternative Cities: Drifting Toward the Labyrinth”. 1999 ACSA International Conference. Rome. 1999.

⁸⁷ Thomas Mann and Kenneth Burke. *Death in Venice*. New York: Knopf, 1965.

MYSTERY IN THE BUILT FABRIC

As a labyrinthine city, the network of streets, alleys, courtyards and canals make up mysterious conditions in the walking experience. When *drifting* through Venice, these mysterious conditions evoke a sense of “connection and non-connection... [of] fear and pleasure”.⁸⁸

88 Nancy M. Clark. “Alternative Cities: Drifting Toward the Labyrinth”. 1999 ACSA International Conference. Rome. 1999.

Figure 95. Right. Plan view of illustrated conditions.

Figure 88. - Figure 90. *Opposite Page. Left Row.* Approaching from Southwest corner
 Figure 91. - Figure 93. *Opposite Page. Bottom Row.* Approaching from Northeast corner
 Figure 94. *Above.* The two buildings perfectly frame the corner of Basilica dei Frari.

Condition #1

A slight gap between the corners of two buildings provides a secret passage into an alley. Approaching from the alley, the corners form a narrow opening, perfectly framing the corner of the Basilica dei Frari. (Figure 91)

Top Left to Bottom Right:
Figure 96. - Figure 107. Procession into the alley.

Condition #2

Drifting requires that we “allow ourselves to be drawn by the attractions of the terrain” and walking around the labyrinthine network of Venice, we often find ourselves being drawn to something beyond. In this case, what seems like a dead end (Figure 94) reveals another alley around the corner, (Figure 96) and the light beyond the alley draws us in further.

Figure 108. Right. Plan view of illustrated conditions.

We then reach a courtyard, a point of expansion, release from the compression of the narrow alley. At this point, we may notice a shift in alignment between buildings at the corner, and a slight gap. (Figure 100) Although difficult to notice at first glance, through indication of shadow and light, we realize that this leads to another alley.

Figure 109. - Figure 117. Photographs of *sottoporteghi*.

Condition #3

These *sottoporteghi*, or “tunnels” are common in Venice, where informal passageways between buildings were created to ease the congestion of dense built form. In this case, light plays an important role in drawing us toward the end of the tunnel.

Figure 118. *Top.* 'Layering' in the streetscape.

Condition #4

Figure 119. *Above.*
Plan view of illustrated condition.

Layers are an integral part of the Venetian cityscape. This layering effect of buildings creates anticipation, depth and a more interesting and memorable narrative when walking through a space.

HIDDEN ELEMENTS OF VENICE

Venice also acquires a mysterious quality as its unchanging facades almost always hide the function and transformation occurring behind its stone and brick walls. Since we can only guess the function inside, the buildings urge us to discover more, rather than telling us exactly what they are. Giulia Foscari demonstrates that in fact, Venice is and has been a constantly evolving entity, despite the common conception of it as a static city. As she illustrates in *Elements of Venice*,⁸⁹ it has been changing at a micro scale, at the scale of its elements. By examining the transformation of its doors, stairs, corridors, or windows, we are able to read centuries of social and political changes.

These details are hardly noticeable to those who come to take the snapshot of the sentimental Venice. These elements are only detectable when we slow down and begin to notice our surroundings. In many ways, Venice is a city within a city. It is a “quantum, simultaneously dead and alive, true and false, solid and watery, firm and disappeared.”⁹⁰ As more and more tourists infiltrate Venice, as more and more visit for the idea of Venice, its secrets become more valuable, revealed only to those who are willing to slow down and submit to its labyrinthine rules.

89 Giulia Foscari Widmann Rezzonico, forward by Rem Koolhaas. *Elements of Venice*. Zürich, Switzerland: Lars Müller Publishers, 2014.

90 Jeanette Winterson. “Venice: City of Mazes.” Accessed February 13, 2017. <http://www.jeanettewinterson.com/journalism/venice-city-of-mazes/>.

118 Palazzo Barbaro – XVIII Ca' Bernardo – XVI

Barbaro Palazzo.

On the warm mornings, [I] looked into the shade of a court where a high outer-staircase, strikingly bold, yet strikingly relaxed, held together one scarce knew how; where Gothic windows broke out on discoloured blanks of wall, at quite arbitrary levels.

Henry James

Ca' Bernardo, smaller courtyard.

Ca' Bernardo, larger courtyard.

ANATOMY OF GOTHIC EXTERNAL STAIRS

Bordered by an open banister of spindles topped by small decorative capitals.

Smooth-surfaced handrail punctuated by raised stone or marble decorations, adorned with thistle flowers, small heads, and ornate lions.

Held up by blind, descending archways.

Built against the courtyard's perimeter walls. Rights lead to a small terrace, known as a *lago*, often covered by a roof supported by small columns.

Mainly constructed in Istrian stone.

119 Palazzo Contarini della Porta di Ferro – XVI

THE OLDEST STAIRS

Through the first half of the 15th century at least, the ground floor of Venetian houses, even the important case of *stazio*, represented the port infrastructure of Venice, the maritime republic that dominated the Eastern Mediterranean despite never having an actual harbour. Ground floors, which served as storage for the countless goods Venetians traded between East and West and as workspaces for the so-called *famiglia minuta*, were therefore not meant to be connected to the upper piani nobili,

home to the family who owned and managed the business. There were therefore no stairs inside a traditional Venetian house.

The other reason that the practice of building staircases to the piani nobili in the inner courtyard began to take root was that the courtyard was considered a qualifying attribute of a house in late medieval culture. It was a very important structure, even more so if surrounded by high walls and battlements, maintained

The staircase [of the Palazzo Contarini della Porta di Ferro] was one of the most richly and carefully wrought in Venice.

John Ruskin, 1851

Palazzo Contarini della Porta di Ferro.

STAIR

Figure 120. The evolution of the Venetian stairs

THE MYSTERIOUS NATURE OF CANNAREGIO

Cannaregio was the once Jewish ghetto of Venice, where Jews were confined to live from 1516 until 1797. Venice is the only Italian city where the architecture of the ghetto has remained unchanged since its beginning.⁹¹ The *sestiere* primarily housed working class Jews, and as a result of the density, the buildings were taller and more modest than those in other parts of the city. Displaced Jews from various parts of Europe made their homes in Cannaregio, including Jews of German, Spanish, Portugese, Levantine Sephardi, as well as Italian descent. The *sestiere* grew, as many Jews held successful positions in the city as merchants, money lenders or physicians.

Life in the community centered around Jewish ritual and customs, including the celebration of the Sabbath. In the early 18th century, Cannaregio also served as a center for the mystical practice of *Kabbalah*. There were five synagogues in the neighborhood, divided amongst the different ethnic groups. Due to restrictions on property ownership and the construction of new synagogues, the religious buildings never assumed a physical presence from the street, and were all housed inside existing buildings. Three of the five synagogues were built on the top floors of residential buildings, and two were housed in purpose-built structures. None of these buildings had a distinguishable identity from the outside.

Today, Cannaregio is one of the few areas in Venice that has not been infiltrated by tourism. Most of the local Venetians reside in the quiet neighborhood.

*From Left to Right
Column, Top to Bottom:*

Figure 121. Exterior view of the German Synagogue, which is located on the top floor.

Figure 122.

Exterior view of the Spanish Synagogue.

Figure 123. Marble Corinthian column inside the Spanish Synagogue.

Figure 124. Skylight for "unobstructed connection to the sky" inside the French Synagogue.

Figure 125. Hebrew characters in the French Synagogue.

Figure 126. Elaborate *bema* in the Spanish Synagogue.

91 "Virtual Jewish World: Venice, Italy." Venice, Italy Jewish History Tour | Jewish Virtual Library. Accessed January 21, 2017. <http://www.jewishvirtuallibrary.org/jsource/vjw/Venice.html>.

CATEGORIZATION

“The 'Enlightenment', which discovered the liberties, also
invented the disciplines.”

- Michel Foucault,
Discipline and Punish: The Birth of the Prison

“The Search for the Perfect Language”.

I...

Am...

Searching...

I have reached a point where it's becoming difficult for me to hear beyond my thoughts. I believe that my own language, my own thoughts, and therefore, my own predetermined view of the world, is hindering me from my research.

One year ago today, I discovered Umberto Eco's search for his perfect language. As a semiotician, this intrigued me to no end. Our language not only shapes our thoughts, but gives an indisputable, almost omniscient power over our perception of the world. When our language lacks flexibility, our thoughts become rigid. Eco once said that he believes that the “whole world is an enigma, a harmless enigma that is made terrible by our own mad attempt to interpret it as though it had an underlying truth.”⁹²

From that point on, I applied for my research grant. Today, I am stuck. In a whirlpool, labyrinth, enigma, in the depths of language. I finally made the decision to make my pilgrimage to Venice, to visit the Scholar's Library of Eco's Collection.

⁹² Umberto Eco. *Foucault's Pendulum*. Ballantine Books, 1989.

PROBLEM OF THE CLASSIFICATION SYSTEM

In his book, *The Order of Things*, the French philosopher Michel Foucault criticizes the limitations of the current classification system, and our acceptance of the system as our objective reality. He suggests a deconstruction, or an “archeological” investigation of our “discursive formation”, and stresses the importance in the study of the origins of our cultural systems.⁹³

This passage [in Borges] quotes a 'certain Chinese encyclopedia' in which it is written that 'animals are divided into:

(a) belonging to the Emperor, (b) embalmed, (c) tame, (d) suckling pigs, (e) sirens, (f) fabulous, (g) stray dogs, (h) included in the present classification, (i.) frenzied, (j) innumerable, (k) drawn with a very fine camelhair brush, (l) et cetera, (m) having just broken the water pitcher, (n) that from a long way off look like flies.' In the wonderment of this taxonomy, the thing we apprehend in one great leap, the thing that, by means of the fable, is demonstrated as the exotic charm of another system of thought, is the limitation of our own, the stark impossibility of thinking that.

-Michel Foucault, *The Order of Things*

These seemingly absurd series of classifications reveal the limitations of our own classification systems.

Figure 129. Our classification system derives from the Neo-Platonist idea of a “tree of knowledge”. This tree of knowledge, with a tree trunk, roots, and branches, is like the idea of a dictionary, which orders knowledge into a matrix of definitions.¹

¹ Umberto Eco, and Anthony Oldcorn. From the Tree to the Labyrinth: Historical Studies on the Sign and Interpretation. Cambridge, MA: Harvard University Press, 2014.

CATALOGUING SYSTEMS IN LIBRARIES

Our classification of knowledge is best reflected in our libraries. Libraries, particularly in the time before Google, were the repository of cultural knowledge and a method of organizing this knowledge was critical to efficiently finding the information that we are looking for. The Dewey Decimal Classification System (DDC) and the Library of Congress Classification (LOC) system are two of the most common systems used around the world. These systems allow us to organize knowledge into different categories, allowing us to develop and focus on specific areas of study. Without a system of categorization, we would have an infinite breadth of knowledge, but little depth.

LOC

The Library of Congress System was developed at the turn of the 20th century. It is organized into 21 subject categories, its books identified by a combination of letters and numbers. Neither the subject class or the subclasses are restricted in the system.

DDC

The Dewey Decimal System was developed in 1876 as a means of organizing all knowledge. The system is divided into different subject classes, such as science, religion, or philosophy, which are broken down into divisions, which are further broken down into subdivisions.⁹⁴ Each book is assigned a three-digit Arabic numeral, and the sub-classes are given fractional decimals. By using Arabic numerals, it allows for the linear expansion of each section.

⁹⁴ Study.com. Accessed January 21, 2017. http://study.com/articles/Dewey_Decimal_System_vs_Library_of_Congress_Whats_the_Difference.html.

IMPACT ON BROWSING

In the culture of speed, this rigid classification system has led to a mechanical way of searching for titles. For a majority of today's readers, a visit to the library includes an online search for titles, retrieval of the call numbers and the corresponding location, finding the books based on the Dewey Decimal classification system or the Library of Congress Classification system and then signing them out to take them home. Even in the process of seeking new books, librarians are trained in the efficient method of matching past choices to similar ones that have not been read yet.

This is true for the engagement between different disciplines. While we have a system that allows us to delve far into a particular subject, this depth is often isolated within its own discipline.

SYSTEM OF EFFICIENCY
DEWEY DECIMAL CLASSIFICATION SYSTEM OR LIBRARY OF CONGRESS CLASSIFICATION SYSTEM

ΔT

Δ EFFICIENCY
 Δ SERENDIPITY

SERENDIPITY

According to Alberto Manguel, a “broad area of thought is not structured linearly, but back and forth, travelled in directions.”⁹⁵ However, our method of efficiency does not allow for fluidity between distinct disciplines and in turn, negates the role of serendipity in research. Serendipity has played an important role in numerous scientific innovations throughout human history. Successful research is often observed from a wide variety of perspectives, discussing and observing unexpected events or examples that are outside of their specialty. Research also benefits from a 'critical mass' of multidisciplinary scientists working together in an engaging environment, where unexpected connections can be made. Rather than thinking linearly in one field, we must pursue multiple directions. In order to further our knowledge into the “unknown” dimension, we must try to create environments that foster serendipitous connections, on all the appropriate scales: “in the private space of [our] own mind; within larger institutions; and across the information networks of society itself.”⁹⁶

The internet, in fact, is the best tool for serendipity. It is an infinite connection of threads, links, hyperlinks, written by anyone, credible or not. However, it is also designed with the highest standard for efficiency, and filters out, often automatically, 99.9% of the irrelevant information, which undermines its serendipitous aspect.

Figure 131. Finding a book through browsing through the stacks.

95 Alberto Manguel. *The Library at Night*. New Haven, CT: Yale University Press, 2008.

96 Steven Johnson. *Where Good Ideas Come From: The Natural History of Innovation*. New York: Riverhead Books, 2010.

ABY WARBURG'S CLASSIFICATION SYSTEM

The Rhizomic Connection: Fluidity between Disciplines

Aby Warburg was a German scholar who developed new concepts in the understanding of the cultural expression of human consciousness and behaviour.⁹⁷ Warburg began to assemble his personal library in 1901 in Hamburg, Germany. At the time, there were many conflicting opinions about the best method of organizing a library and Aby Warburg, dissatisfied with many of the proposed solutions, began organising his library under a fluid, rhizomic principle. The books are not necessarily organised alphabetically, chronologically, by subject, nor by the size of the volumes. He was against the idea of such mechanical cataloguing, saying that it was replacing the “much more scholarly familiarity which is gained by browsing.”⁹⁸ Constantly arranging and rearranging his books following his lines of thought, the organisation of the stacks became fluid and flexible, just like the human mind.⁹⁹ His lifelong venture eventually became the foundation for the Warburg Research Library for Humanities, which adopted Warburg's organizational principle.

⁹⁷ Susanne Bieri and Walther Fuchs. *Bibliotheken Bauen: Tradition und Vision = Building for Books: Traditions and Visions*. Basel: Birkhauser, 2001.

⁹⁸ Ibid.

⁹⁹ Ibid.

Figure 133. Categories in Warburg's Research Library

Figure 132. A Rhizome - Eco saw the "tree of knowledge" method of classification as too rigid, and preferred the principle of a labyrinth, with its never-ending pathways. He argued that knowledge should be a network of interlinked relationships. The less hierarchical method sacrifices our dream of possessing absolute knowledge, but in turn, we gain the freedom to pursue an infinity of new connections and meanings. Deleuze and Guattari call this a *rhizome*.

Despite the fluid organizational method of the library, the collection of 350,000 resources is classified into four sections:

Image (art history)

Word (language and literature)

Orientation (religion, science and philosophy)

Action (social and political history)

In most sections, books are classified thematically, with primary sources followed by secondary studies. The arrangement is often chronological, as well as geographical. This way, by browsing the shelves, we can quickly assess how a discipline changed over the centuries. The geographical arrangement tends to follow a pattern starting from Italy, France, Spain, to Portugal, moving north to Britain and Germany, and when appropriate, extending Eastwards, as far as Asia and Oceania. The focus on Renaissance Italy, characteristic of the work of Warburg, and of many of the scholars associated with the institute, means that the culture of Renaissance Italy is accorded particular importance. Many sequences begin with bibliographies, and collected essays. These are often followed by thematic sections dealing with questions specific to the disciplines they represent.¹⁰⁰

100 "Library." Library | The Warburg Institute. Accessed January 21, 2017. www.warburg.sas.ac.uk/library.

Iconography

Driven by his fascination for visual memory and the idea of the “survival of antiquity”¹⁰¹, the iconographic compositions in Warburg's library forms the basis of the rhizomic journey, the books supporting the narrative of the images. Aby Warburg referred to this as the Mnemosyne Atlas, a tribute to the Greek Goddess of Memory. He believed that symbols were constantly renewed at different ages, recurring in similar forms, their reincarnations recapturing meaning and significance in a way that is appropriate for that age.¹⁰² We follow the images not based on our knowledge, but based on our “intuitive logic”, creating opportunity for what Deleuze and Guattari called a 'line of flight' - We can leap from seemingly irrelevant cultures through the use of images, creating connections beyond the specifics of time or place. These images refer back to the books, which we can browse through the stacks.

¹⁰¹ Susanne Bieri and Walther Fuchs. *Bibliotheken Bauen: Tradition und Vision = Building for Books: Traditions and Visions*. Basel: Birkhauser, 2001.

¹⁰² Ibid.

An Elliptical Space

“As Warburg imagined it, a library was above all an accumulation of associations, each association breeding a new image or text to be associated, until the associations turned the reader to the first page. For Warburg, every library was circular.”

- Alberto Manguel, *The Library at Night*

In his library in Hamburg, Aby Warburg tried to capture the fluid and dynamic movement of the human mind, and these objectives were spatially reflected in the plan of the library. Warburg conceived the plan in the form of an ellipse, in reference to Kepler's second law. The requirement for fluidity in his library predetermined the edgeless condition of the space but for Warburg, the ellipse was a highly symbolic shape that represented the progress of human thought.¹⁰³ The continuous walls of the ellipse initiates an uninterrupted movement, from one title to another.¹⁰⁴

¹⁰³ Susanne Bieri and Walther Fuchs. *Bibliotheken Bauen: Tradition und Vision = Building for Books: Traditions and Visions*. Basel: Birkhauser, 2001.

¹⁰⁴ “Library.” Library | The Warburg Institute. Accessed January 21, 2017. www.warburg.sas.ac.uk/library.

Figure 134. Top. Warburg's Mnemosyne Atlas relies on 'intuitive logic'

Figure 135. A rhizomic 'line of flight'

Figure 136. The interior of Warburg's private library

UMBERTO ECO'S CLASSIFICATION SYSTEM

Like Foucault, Umberto Eco was skeptical of the limitations of our classification systems; in particular, our systems of signs and symbols, of the established meanings and understandings determined by our cultural system of codes. In his research as a semiotician, he continued to question our language and looked to esoteric and mystical sources for inspiration.

In his essay “Le belle mappe: viaggi immaginari fra cielo e terra” (“Beautiful Maps: Imaginary Voyages Between Heaven and Earth”), Eco admits to possessing a collection of books on things all false. “I consoled myself with my collection of antique books that I call: the semiological, peculiar, strange, magical and pneumatic library, which is comprised of books that speak only of things false.”¹⁰⁵

¹⁰⁵ Quoted and translated by Annarita Premier in “The Concept of Self-Reflexive Intertextuality in the Works of Umberto Eco” PhD diss., University of Toronto. 2013. https://tspace.library.utoronto.ca/bitstream/1807/43696/3/Primier_Annarita_201311_PhD_thesis.pdf

Figure 137. Umberto Eco's categories.

However, like Warburg, despite the ad-hoc nature of these topics, he organized them into distinct categories and gave them a unifying character. He explains:

***Semiologica** concerns science, symbols, and strange languages;
Curiosa, because it must be curious;
Lunatica, because I don't collect serious science, only old science, alchemy, and things of a cabalistic nature; and
Pneumatica, which, according to the Oxford English Dictionary, relates in an ancient Greek sense to inquiries of the spirit or to spiritual existence, and in Gnostic theology to a spiritual being of a higher order. In English universities during the seventeenth and eighteenth centuries, pneumatics frequently was presented in opposition to physics as a form of metaphysics and was used to classify a "doctrine of spirits." The word also has been used to describe an early form of medicine, altogether a rich area to pursue as a collectible category.¹⁰⁶*

- Umberto Eco

His personal library was organized like a labyrinth so that he could easily reach from one one topic to another but also create encounters of new findings through physical movement in his anti-library.

Foucault, Warburg and Eco all sought a more fluid connection between disciplines, but also recognized the importance of a classification system in organizing our knowledge.

PART II DESIGN PROJECT

Part II explores the previously discussed themes - Speed & Distraction, Slow Reading, Mystery, and Categorization through the design of a research library in Venice. The library brings together Umberto Eco's collection of 50,000 books.

Figure 139. Approach to site from the *vaporetto* station.

A LIBRARY OF THE MIND: THE UMBERTO ECO RESEARCH LIBRARY

A library raises fundamental questions regarding our habits, our perception and attitudes towards knowledge. In the previous sections, we discussed four cultural issues: speed and distraction; speed reading, leading to a lack of deep understanding; categorization, leading to a limitation in our way of thinking; and the lack of aura and our cultural obsession with the things that we know. These issues raised appropriate architectural and spatial strategies, such as the *dérive*, rhythm, nestling, or layering. The design project looks to synthesize these strategies into a cohesive architectural design project.

Refer to p.122 for
Categorization

Umberto Eco, who “collect[ed] books for the knowledge they contain[ed]”,¹⁰⁷ has been a significant character in the research that has raised critical concepts such as categorization and aura. He had a collection of 50,000 books dispersed among his apartments across Europe. Since his death, there has been no proposal for what to do with his collection. This project seeks to bring together his collection and other relevant titles, into a single library for scholars and researchers. Eco's relationship with his library and his books helps to enrich the program and design of the library.

The library will be divided into the four main categories devised by Eco, *Curiosa, Pneumatica, Lunatica and Semiologica*. Distinct characteristics, such as movement, light and relationships with books, arise from these categories.

107 Nicholas A. Basbanes. “The Curious, Magical Library of Umberto Eco.” *Biblio*. April 1998, 8. Academic OneFile (accessed February 13, 2017).

Umberto Eco and his Private Library

The library not only contains Eco's collection, but embodies some of the philosophies and the intriguing relationship that Eco had with his books. This relationship helps to enrich the design of the library. Eco not only collected books for their knowledge, he was drawn to the physicality, character, or aura,¹⁰⁸ of these books. He once described how he could recall the story of a book by just holding it and feeling the weight and texture in his hands.

In his interview with Nicholas Basbanes, Eco brings attention to the depth of the custom-made shelves, which were approximately 12 inches in depth to the edge of the walls. This allowed enough space for just one book per slot, making every book in his library visible. For Eco, books were not only read and collected, they were displayed: had distinct physical dimensions that made each book unique.

Eco's time in his private library was full of little rituals. As a collector, it became a habit for him to write down “the price, the size, and a physical description of every book [he bought]. [He would] indicate if there [were] stains, wormholes, whatever.”¹⁰⁹ This practice made the books he bought distinctly his possessions, as they became a part of the larger library family. Within his library, he had a softly illuminated glass box, where he would display his rare collection, for his own pleasure and for his guests. He described a ritual: “Every fifteen days, I make a selection that follows a certain theme, and I put those books in that cabinet.” This ritual is adopted into the library's program and as the collection grows, through donations and purchases made by the library, the ritual of retrieving and displaying the collection is performed by the staff every two weeks.

¹⁰⁸ Walter Benjamin. “The Work of Art in the Age of Mechanical Reproduction.” in *Illuminations*. Edited by Hannah Arendt. Translated by Harry Zohn. London: Fontana, 1973.

¹⁰⁹ Nicholas A. Basbanes. “The Curious, Magical Library of Umberto Eco.” *Biblio*. April 1998, 8. Academic OneFile (accessed February 13, 2017).

Figure 140. *Top.* Umberto Eco in his private library
Figure 141. *Below.* Nolli map of site context.

INTRODUCTION TO SITE: CAMPO DE LE ERBE

The proposed site is a small residential block of 10 buildings that surround a small courtyard called Campo de le Erbe. The site is approximately 35 by 55 meters, with a courtyard that is approximately 12 by 12 meters, at its center, is a stone well. There is a small brick wall that encloses a private garden, and without the wall, the courtyard measures approximately 12 by 22 meters. The site itself is on the eastern end of Cannaregio, on a small island block with Rio Ca' Dolce on its West and Rio Rachetta on its South side, with Calle Corrente on its East side. There is currently only one access point into the courtyard by foot, which is from a narrow alley from Calle Corrente. There is a small bridge crossing Rio Rachetta on the East of Building A. The existing structure of the buildings was established by projecting the rooflines of the buildings.

Figure 142.
Opposite Page.
Alley leading to
site
Figure 143. *Right.*
Plans of existing
site.

Right.
Figure 141
Top Left.
Figure 142.
Bottom Left.
Figure 143.

Figure 144.
Figure 145.
Figure 146.

Figure 147.

Opposite Page.

Figure 148. *Left Column Top.* Textures of different buildings can be experienced in the alleys.
 Figure 149. *Left Column Bottom.* Water ties together varying ages of buildings.
 Figure 150. *Right Column Top.* Weathered brick
 Figure 151. *Mid Column Bottom.* Life and vegetation on site.
 Figure 152. *Right Column Bottom.* Revealing corners
 Figure 153. *Opposite Page Bottom.* Varying texture of buildings, illustrating age and wear.
 Figure 154. *Right.* Varying age of buildings.

Below.

Figure 155. *Top Row Left.* Chaotic roof condition.
 Figure 156. *Top Row Right.* Detailed balustrades on rooftop balconies
 Figure 157. *Bottom Row Left.* Revealed corners - mysterious condition illustrated on p.101
 Figure 158. *Bottom Row Left.* Revealed corners.

NARROW ALLEYS

The entrance into the site begins with the mysterious allure of the lighting condition beyond the narrow walls, between buildings F and G. Without knowledge of the library, we are drawn to the mysterious light and colours of the walls.

Passing through the narrow corridor, we enter an expansive courtyard that in a strange way, stabilizes our senses and brings us calm. Surrounded by canals on its West and South sides, the site acquires narrow and unique views onto the water, that draws viewers onto the site and onto what is beyond. This is a typical and alluring condition in Venice - the curious glimpse of the unknown beyond the wall. The glimpse of the water beyond the site through the narrow alleys, and the occasional passing boat or paddleboat, framed by the narrow corridor between two buildings, create tension and become unique elements of the site that are constantly referred to throughout the design. These narrow corridors, in conjunction with the lighting conditions on the site, draw people into the site and become moments filled with tension. They also become the connection points between buildings, allowing for a moment of pause.

INTRODUCTION TO SEQUENCE

The library can be visited in multiple ways. There are various entry points at grade that allow the scholars to visit any library they please, given that they have a library access card. Once they are inside the library, they can move from one building to another following the linear route, or through the bridge connections at the roof level. However, for first time visitors, it is recommended that they begin their experience of the library, following the sequence of: *Curiosa*, *Pneumatica*, *Lunatica*, and *Semiologica*.

Eco's collection was a particular selection of books intended to guide him in his search for the "Perfect Language", which he describes as a life-long endeavor. Arguing against the rigidity of our language, he sought strange sources - *Curiosa*, *Pneumatica*, *Lunatica*, in order to direct his search in *Semiologica*, which contains the largest amount of books.

Before entering the official library, the scholar must walk through the public spaces: the courtyard, the garden, the lobby, the Rare Books Collection, and the exhibition space underneath *Semiologica*, which is also the final point in the journey. There is a visual and auditory connection between the exhibition space and the upper floors of *Semiologica* (where you need an access card to get into), but the one way gate restricts access to the upper floors while allowing the scholar to end their journey in the most public space.

After visiting the public spaces, the scholar can visit the librarian and asks for recommendations from the information desk. While we can go

directly to the books we need, the library is designed so that users are encouraged to “drift”, or use the strategy of the *dérive*, being drawn by titles they may come across while they are on their journey.

Curiosa is the first section in the library, a space with varying “landscapes” of bookshelves. As the first encounter with the library, this is a space where the visitor can find books that pique their curiosities.

Pneumatica, with books on enquiries of the spirits, is an un-enclosed space, where visitors can experience the water from an adjacent canal flooding into the space at ground level. The book storage of *Pneumatica* is not accessible from ground level, and must be accessed through *Curiosa* (Building B) or the study space in Building D. This extended journey heightens the ethereal experience in *Pneumatica*.

From Building D, we move onto *Lunatica*, a collection of “old science, alchemy, and things of a cabalistic nature”.¹¹⁰ According to Eco, “the lunatic is all *idée fixe* (an idea or desire that dominates his mind: an obsession), and whatever he comes across confirms his lunacy. You can tell him by the liberties he takes with common sense, by his flashes of inspiration...”¹¹¹ *Lunatica*'s central atrium mirrors the geometry of the courtyard, although this geometric perfection is hidden, unlike the imposed illusion of perfection in the courtyard.

110 Nicholas A. Basbanes. “The Curious, Magical Library of Umberto Eco.” *Biblio*. April 1998, 8. Academic OneFile (accessed February 13, 2017).

111 Umberto Eco. *Foucault's Pendulum*. San Diego: Harcourt Brace Jovanovich, 1989.

From *Lunatica*, we move onto *Semiologica*, which contains the biggest part of Eco's collection and takes Building F and G. In order to create a fluid movement between topics, the two sections of *Semiologica* are connected through a continuous ramp. These two sections contain distinct study spaces and browsing experiences.

At the culmination of the journey, we end in the public exhibition space, which is open to the reading space above in *Semiologica*. This reinforces semiology's dialogical nature.

For the repeat visitor, there are direct access points from the ground level, without having to walk through all of the spaces. This is accessed through a security door from each building. When a scholar gains access from the librarian, he/she is able to access any building, from any point. For example, if a scholar wishes to move from *Curiosa*, to *Semiologica*, they do so by leaving Building B from ground level, walking across the courtyard, and entering Buildings F or G at ground level.

Figure 165. Entrance at grade

Figure 166. Linear procession through the building

Figure 167. Shortcuts

Figure 168. Ground Floor Plan

Figure 169. Second Level Plan

Figure 170. Third Level Plan

Figure 171. Fourth Level Plan

Figure 172. Narrative #1

Figure 173. Narrative #2

BUILDING WALKTHROUGH

The library can be experienced from various viewpoints.

The following chapters will illustrate the experience of the user through two narratives.

The first narrative presents a walk to the site and the project through the first time use of the building, introducing the architectural and experiential sequence. This narrative begins with the walk to the site.

This sequence is ideal for those who do not have specific research goals, but are looking to encounter new discoveries and serendipitous findings.

The second narrative looks at the experience of the library for a repeat visitor, who has specific research goals, and uses the library by taking the shortcuts.

Each narrative is followed by an architectural analysis of the moments.

NARRATIVE #1

Labyrinth

Here in this labyrinth, getting lost, and then found, seemed the whole point, that and the moment of willed abandonment, the unexpected rapture of being blindly led. I observed how my feet chose each wrong turn, working against my navigational instincts, circling and repeating, and bringing on a feverish detachment. This hour of solitary wandering seemed a gift, and part of the gift was an old greedy grammar flapping in my ears: lost, more lost, utterly lost...¹¹²

Figure 175. The labyrinthine journey through Venice

I walked through Cannaregio, crossing streets and canals.

Figure 176. - Figure 180. Procession to site

Figure 181. Next Page. A moment of expansion

Figure 182. - Figure 184. Procession to site
Figure 185. *Opposite Page*. Entrance to library

I walked into the narrow alley, walking under the low bridge that connects the two buildings. It was unclear what lay beyond, but I was drawn to the light beyond the opening.

Figure 186. Courtyard.

Upon entrance into the courtyard, my senses are jolted awake. At first, I could not believe my eyes. The idea that such an expansive space could exist in this confined area seemed bizarre.

Figure 187. Visual harmony in the courtyard.

The geometric perfection of the courtyard made me pause in silence, and as I walked along the courtyard, the rhythm of the piers matched the cadence of my footsteps, and I noticed myself slowing down.

COURTYARD

The courtyard condition creates a sense of harmony, while its lack of program provides space for communal exchange, and spatially and visually ties different spaces together. The courtyard is quite unusual in that it is almost a perfect square. The 8-12 meter high residential buildings surrounding the courtyard allow ample light to enter the space, and the courtyard becomes a beautifully day-lit space throughout most of the day. Following some of the case study examples of different libraries, the non-programmed courtyard becomes a very important part of the library.

Louis Kahn left the most important space at the Exeter Library, the central atrium, to communal exchange, unlike historic precedents which often reserved the grandeur for the study hall. Despite its lack of program, this space becomes the most central, most important space in the library, and ties together the experience of the library.

Furthermore, the perfect geometries featured in the central space create harmony, visually and psychologically stabilizing us before we enter the library. It “impress[es] upon the reader the accumulated knowledge of centuries available for study... It is a place to pause, to reflect upon the knowledge, history, and tradition embedded in the books”.¹¹³

The monastic Cloister of Santa Maria della Pace also utilizes perfect geometry, order, rhythm and proportions, to create a space of repose and

silence, leading the visitor to a moment of pause upon arrival. The cloister measures 14 by 14 meters, with a band of white stone running across a courtyard of black stone. Similar to the project site, the church is located in a Medieval part of Rome, at the end of twisting, narrow streets. The contrast between the non-linear, somewhat confusing streetscape and the space of calmness and order, becomes the first point of slowing down our pace before reaching the library.

Both examples use the void space of the courtyard in order to instill a moment of pause before entering the destination. In Exeter Library, this space is also used for communal exchange. In both cases, they bring us into this “other world”, separate from the world of distraction outside. With these strategies in mind, the courtyard of the Research Library features a 2 by 2 meter grid, paved with Istrian stone (common cladding and paving materials in Venice) and lined with black stone to accentuate the grid. This paved *sagrato* is a distinct architectural element featured outside some of the most important churches in Venice, and makes psychological reference to the sacred character of the space. The grid is formed by centering the existing well, which becomes a historic element in the newly clad courtyard, reminding us of the city's past by

Figure 189. In the Exeter Library, the most important space has no program

Figure 190. Exeter - Perfect Geometry of the atrium

Figure 191. Cloister of Santa Maria della Pace - Perfect Geometry of the Courtyard

juxtaposing it with the new. These elements are important in creating a sense of memory and allow for reflection before entering the library.

Unlike the courtyards featured in the two examples, the order of the courtyard does not reflect the walls of its surrounding buildings, meaning the facades facing the courtyard do not perfectly align with the abstract geometry of the 18 by 18 meter square. The surrounding buildings form distinct elements and lack a sense of unity that creates the sense of visual harmony that is important in a library, to “impress upon the reader the accumulated knowledge of centuries available for study...”¹¹⁴

Figure 192. *Bottom Left.* Existing well - adds sacred character to space.

Figure 193. *Bottom Right.* The existing well is juxtaposed with the new pavement and grid.

114 William H. Jordy. “Criticism: Kimbell Art Museum, Fort Worth, Texas; Library, Phillips Exeter Academy, Exeter, New Hampshire”. *Architectural Review* 155, 928. June 1974. p330-335.

In order to visually unify these entropic entities, two methods have been employed. The first one is a Renaissance principle that can be seen in Piazza San Marco in Venice. The rigorous use of rhythm in organizing the piers has led to a central space that is seemingly contained by a perfect rectangle. However, the square's surrounding buildings significantly shift from the rectangular geometry.

The courtyard of the library employs a similar strategy, of consistent rhythm through the existing buildings. The geometry is also implemented sectionally, through the bridges between different parts of the library. The bridge forms a powerful X in the courtyard, the height of the bridge equal to the dimensions of the inner platform of the courtyard pavement, creating a perfect cube. The bridge is made of acid-etched glass, in order to allow for light to pass through.

Figure 194. Piazza San Marco - rigorous rhythm creates the illusion of a perfect geometry

Figure 195. Piazza San Marco - Its plan reveals its irregular shape

Figure 196. Courtyard Elevations - Rigorous rhythm and geometry create the illusion of a perfect square.

The second strategy is to not only implement the grid onto the courtyard, but to push perfect geometry into the existing buildings at ground level. The geometry is offset from grade, and we must step onto a curb in order to enter the courtyard. This physical interaction occurs between the narrow alley condition and the open courtyard, and creates a psychological break between the outside and inside. When we enter the courtyard, our eyes are drawn to the perfect geometry that sits beneath the shadowy arcade of the existing buildings.

Pushing the geometry of the courtyard into the existing buildings on ground level also articulates the conflicting relationship between the existing and new; entropy and order. From the second level and above, the buildings return to their existing alignment. This creates a subtle, yet noticeable shift in the courtyard.

The contrast between the new geometry and the irregularity of the buildings creates a distinction between the **ideal** and the **real**. Umberto Eco, in his search for the perfect language, criticized the limitations of our cultural symbols and sought knowledge in the curious, mystical and seemingly invalid cultures of the past, leading to his interest in *Pneumatica*, *Lunatica*, and *Magica*. The library continues to address this tension between the two ideas, through the dynamic relationship between the **existing** and the **new**.

Figure 197. The perfect geometry pushes past the existing line of buildings at grade, but returns to its irregular alignment on the on the second floor.

The courtyard becomes a distinct volume and an independent entity. The surrounding buildings do not form a perfect square, as they shift slightly in alignment. This slight irregularity speaks to a natural state of being for buildings, as these residential buildings were built to accommodate use and function, without a rigid grid. The courtyard signifies the centripetal force that pulls these entropic entities together.

The four sides of the courtyard are surrounded by reflective glazing, creating the illusion of a continuous plane. This illusion is a metaphor for our relationship with knowledge. We often put our knowledge on a pedestal and treat it as the ideal truth. However, as we explore the world, we realize that what seemed to be an infinite truth was just an illusion of our making. The continuous surface addresses this tension.

On June 21st (summer solstice), the sun reaches an angle that allows maximum light to penetrate through the acid-etched glass bridge. On this day, the library hosts a gathering in the courtyard space, where visitors celebrate the library by sharing Eco's literature, exchange knowledge, while glimpsing at the sunlight through the translucent bridge. The reflective glazing panels open up all the way, enclosing the courtyard from the outside. By placing the building in a specific cultural, temporal and physical context, the library is able to establish an *aura*.

Figure 198. *Top.* The reflective surface creates the illusion of an infinite plane.

Figure 199. *Bottom.* The courtyard becomes a distinct entity.

Figure 200. Annual gathering in the courtyard.

Figure 201. Glazing closed.

Figure 202. Glazing open.

Figure 203. *Opposite Page.* The courtyard becomes a charged, deliberate space, rather than a leftover space.

Figure 204. We gain a sense of time by tracking the celestial bodies, rather than with a mechanical clock.

Figure 205. *Opposite Page*. Rooftop view.

From the path, I saw a small opening in an old brick wall, that seemed to be the entrance to the library. Behind the wall was a small garden, and I could hear the rustling of the leaves in the large tree.

Upon entry, I saw a tower of books, glimmering in the light.
From the lobby,

Figure 206. Garden and lobby.
Figure 207. *Right.* Plaster cast wall of burnt books.
Figure 208. Porch of the building.

I was immediately drawn to the white room with a glimmering tower of books. The lady at the information desk told me that this was the Rare Books Collection that Umberto Eco had assembled over the years. Over time, the collection grew, with the insights and donations from volunteers and scholars, and taking after Eco's ritual, the collection is switched every fifteen days. She told me to let her know if I found something of interest.

The books ranged from small to large, thick to thin, old to new. The collection included a version of *De Civitate Dei* and a thoroughly worn out version of the *Divine Comedy*. The entire tower seemed incredibly delicate and elegant, and I felt afraid to go near it.

After admiring the tower, the textured white wall came into perspective. Lit from above and below, it created a dramatic shadow effect. Upon closer examination, I realized that these were plaster casts of books. *Illuminations*, by Walter Benjamin; the Jewish *Torah*; *The Satanic Verses* by Salman Rushdie; 1984 by George Orwell; some characters that seemed Aztec or Mayan...? They seem like such a random collection of titles... But as I mulled over their possible connections, I came to a sudden realization. These were books that had been burned or banned at some point in history. All of a sudden, the white wall seemed to expand before my eyes as I stood before this repository of lost knowledge, lost cultures before me.

In order to reach the official entrance of the scholar's library, I was to go to Building B, according to my library map. I stepped down onto the “porch” of the building, at the same time I saw a man stepping onto the porch from his boat. I was suddenly in a different dimension. It seemed that I was floating on water, the enclosure of the wall behind me. I could hear the water splashing against the walls, the crisp November air clearing my nostrils, the strange smell of the Venetian canal. What used to be windows had become mere openings against the stripped brick wall, reminding me of an ancient ruin.

As I walked through the path, I could see changes in the brick - they were becoming older, more deteriorated. I stepped through the door, and I was suddenly outside. The thick framed doorway into the next building was clearly drawing me in, but I paused here for a moment to look back at the courtyard to reorient myself. I then entered Building B. There was a translucent screen on my right side, but as I peeked over, I saw a grand open space that seemed...

Curious.

Figure 209. Elevation of *Curiosa*
Figure 210. Alley

GARDEN

Once we have reached the courtyard, we find a colonnade guiding us to an unknown space beyond the existing brick wall. We catch a glimpse of a large tree, but it is unclear what is beyond, keeping us in a state of anticipation.

The columns are placed on the 2m grid of the courtyard, and in the afternoon, cast a long shadow over the walkway, reinforcing the sense of rhythm. We enter the garden through a small opening in the wall, and we see a small lawn at the center, with a path surrounding the lawn. Seating spaces are scattered along the path, and we can also sit on the grass. The tree casts shade on the ground, and when the wind blows, creates a cool rustling sound that creates a relaxing environment.

From the garden, we can see into the entrance of the library. Once we enter the lobby, we see a reception desk on our left, and a monumental tower of books on our right, which is the Rare Books Collection. We can see a glazed pathway that leads to *Curiosa* and to the official scholar's entrance to the library.

Figure 211. Negative impressions speak to the absence of books.

LOBBY

At this information desk, one can find general information about the library, such as the current public exhibition, acquiring a scholar's membership, and a map of the library as well. The information booth is for scholars and the public, and is the first point of acquiring general knowledge about the library. Throughout Building A, the stucco is stripped off the walls in order to reveal the brick.

RARE BOOKS COLLECTION

The rare books collection of the library is encased with a frosted glass wall. The glass gets more transparent as it nears the top of the panels, revealing the rare books tower near the top of the roof structure. The movement through the narrow path into the Rare Books Library space psychologically separates the user from the more public lobby and exhibition space.

The wall of plaster cast books show the negative impression of the books, alluding to their absence. In *The Library at Night*, Alberto Manguel describes the act of cultural cleansing through the destruction of libraries from the Library of Alexandria to the University of Alabama Library. Libraries were once repositories of cultural knowledge, and their destruction was used as a means of colonization and subjugation. As we live in the digital age of infinite information, the Rare Books Library reminds us of the past that has been lost throughout history.

PORCH

According to Pallasmaa, “Images of water emphasise architectural permanence and concretise the passing of time. The reflective surface of water hides its depth and projects a second, hidden world. The doubled world activates our imagination for the duality of past and future.”¹¹⁵ By bringing water into the liminal space between the public entrance and the private mind space of the library we can highlight and create a temporal dimension to the experience. The ground of the porch is sunken and opens up to the water during *aqua alta*, high water. This of course, alludes to Scarpa's flooding of the ground plane at the Fondazione Querini Stampalia. The stucco on the interior walls is stripped in order to reveal the layer of brick in the two buildings.

Figure 212. *Right.*
The ground of the porch is sunken and opens up to the water, while the procession reveals the different age of brick.

115 Juhani Pallasmaa. “Inhabiting Time.” *Architectural Design* 86, no. 1 (2016): 50-59. doi:10.1002/ad.2001.

Figure 213. *Below:* In Brion Cemetery, water creates a second, hidden world.

Figure 214. *Left. Curiosa* in relation to rest of library.

Figure 215. *Top. Diagram of Curiosa.*

Figure 216. *Opposite Page. Grid revealing moments in Curiosa.*

109. qtd. in. Nicholas A. Basbanes. "The Curious, Magical Library of Umberto Eco." *Biblio*, April 1998, 8. Academic OneFile (accessed February 13, 2017).

When I came across a title of interest, I found and nestled into a small reading nook, and lost myself in the book, before continuing along the labyrinth.

This route leads me to the public space in *Semiologica*.

The openings provided a sense of orientation in the labyrinth.

Without a particular book in mind, I walked into the labyrinth of *Curiosa*.

The long corridors seemed to go on forever.

Figure 217. The labyrinthine movement in *Curiosa*.

The rooftop led to shortcuts to other collections in the library.

Walking along these long paths, I noticed myself slowing down.

The upper floor was a light-filled space, that filled me with a sense of calm.

A brick wall in the distance provided me with a sense of orientation.

The narrow, dark corridor will lead me to *Pneumatica*.

Figure 218. Curiosa Model.

CURIOSA

Curiosa is the first section of the sequence, where visitors start their journey. As such, it is the most labyrinthine part of the library, where visitors are invited to *get lost* in the books. As we discussed in Chapter 1, a labyrinth is an indirect and arduous path to a clear centre, often the longest possible route to the destination. By getting lost in the long and and confusing journey, we can distance ourselves from the end goal, focus on the experience, and break away from the habit of speed and efficiency that we often find ourselves in.

Curiosa is designed for browsing, or what the Situationist International might call *dérive*. We break away from our routine of searching for a title online, finding the call number, and locating the book. Rather than directly searching for the title we are looking for, we are invited to stroll through the stacks, walking through the narrow corridors. Slowly browsing through a labyrinth makes us more away of our surroundings. This may help us notice a title that we may not have noticed before, or help us create connections that we had not stopped to think of. By breaking away from the habit of efficiency, we are led to serendipitous findings.

The *dérive* was also identified as a journey through “ambient space and ambient intensities for navigation through the labyrinthine city,”¹¹⁷

117 Nancy M. Clark. “Alternative Cities: Drifting Toward the Labyrinth”. 1999 ACSA International Conference. Rome. 1999. p400

ambience being the “character and atmosphere of a *place*.”¹¹⁸ The idea of *place* is based on the user's interaction with the environment, as well as a space that has a strong sense of orientation. The moments where the bookshelves reveal the brick of the existing building, or window openings, become moments where we can find a sense of orientation in a labyrinth.

Curiosa is also composed of a sequence of compression and release, as experienced in movement throughout Venice. (see p22) The narrow corridors create a confined space that seems to continue without end, while isolating us from other people. Our only clue becomes the light at the end of the tunnel, or a view through an opening. In the moments of release, we are offered a sense of relief. We move back and forth between a sense of known and unknown. Furthermore, by creating a microcosm of the city inside the library, we are able to create a stronger sense of *place*.

¹¹⁸ Oxford Dictionaries, s.v. “place,” accessed April 10, 2017, <https://en.oxforddictionaries.com/definition/ambience>.

Opposite Page and Above:

Figure 219. - Figure 220. Moments where the bookshelves reveal the existing brick walls become places of orientation.

Opposite Page and Below:

Figure 221. - Figure 224. Vernacular conditions of compression and release is translated into the spatial experience of the building.

Figure 225. - Figure 228. Partial Plans illustrating *Curiosa*

Figure 229. Above. *Curiosa* Interior Views.

Figure 230. Right. *Curiosa* Interior Views.

Figure 231. Below. *Curiosa* rooftop connection to shortcut.

PNEUMATICA

“...relates to inquiries of the spirit or to spiritual existence...
In English universities during the seventeenth and eighteenth
centuries, pneumatics frequently was presented in opposition
to physics as a form of metaphysics and was used to classify a
“doctrine of spirits.””¹¹⁹

- Umberto Eco

Figure 232. Left. *Pneumatica* in relation to rest of library
Figure 233. Top. Diagram of *Pneumatica*
Figure 234. Opposite Page. Grid revealing moments in *Pneumatica*

112 qtd. in. Nicholas A. Basbanes. “The Curious, Magical Library of Umberto Eco.” *Biblio*, April 1998, 8. Academic OneFile (accessed February 13, 2017).

I reached *Pneumatica* after the fragmented experience of *Curiosa*. The dark and narrow threshold seemed to heighten contrast between the two distinct spaces.

Upon entry into the building, I was alarmed by the smell of the canal. Similar to the earlier experience on the porch, I was suddenly in an exterior space. However, this time, I was floating three storeys above the water. A large concrete cylinder that seemed to float in mid air came into view.

Figure 235. Experiential Section through *Pneumatica*

After circling around the marble path, I entered the concrete cylinder. Here, I paused to bask in the spiritual light pouring in.

I let myself be chosen by the book.

The lack of seating forced me to continue onto the next building. I tried with all my power to remember the spiritual space. I exit into another alley, and am re-oriented with the view of the canal.

After reaching the study building, I nestled into my seat and lost myself in the books that I had collected from *Curiosa* and *Pneumatica*.

To
Lunatica,
p218

PNEUMATICA

We reach *Pneumatica* after the fragmented experience of *Curiosa*. In order to reach the books, we must circle around the cylinder to find the entrance to the inside. *Pneumatica* becomes a powerful space, especially in direct contrast with the spatial experience in *Curiosa*. *Pneumatica* is vast, open, and weightless with very fluid movement, while *Curiosa* is full of variations and choices. Upon entrance into *Pneumatica*, we see a floating concrete cylinder, raised three storeys above ground. We can only reach *Pneumatica* from the third floor, from *Curiosa* or from the study building next door. These strategies accentuate the experience when we finally reach the books, which contain information of a spiritual nature.

The concrete cylinder that is suspended from the concrete beams encases and appears to protect the books within its heavy mass. Below the cylinder, at ground level, we find a pool of water from the canal. The water reflects sunlight onto the brick facade, creating an ephemeral experience. The concrete cylinder is hung off of concrete cross beams that sit at a 23 degree angle to the orientation of the existing roof structure. The cross beams create an X in the skylight, similar to that of the Exeter library.

Figure 237. Model of *Pneumatica*.

When we finally reach the interior of the cylinder, after the ritualistic circling around it, we are overwhelmed by a flood of spiritual light. This expansion instills a moment of pause, surrounded by books of a spiritual nature. At this moment, we may be inclined to pick up a book that instinctively captivates our interest, rather than mechanically searching for a title. It may be a title that suggests a continuation from the books

Figure 238. *Left.* Upon entrance into *Pneumatica*, we see a floating concrete cylinder, raised three storeys above ground.
Figure 239. *Right.* The concrete cylinder protects the books.

that we have found in *Curiosa*, or a topic that had been lingering in the back of our minds. Here, we have opportunity for a serendipitous encounter between different categories.

Eco believed that books had a certain *aura*, that more often than not, he was drawn to the shape or texture of a book. (see p.93) According to Benjamin, aura derives from “of a thing... [It] is the essence of all that is transmissible from its beginning, ranging from its substantive duration to its testimony to the history which it has experienced.”¹²⁰ However, in the age of electronic reproduction, books are no longer cherished for their a temporal, physical or cultural context. They are no longer valued for their uniqueness or their existence, but rather, their accessibility to the mass public. Without a sense of aura, they are also losing the magical and tangible presence that once captivated their readers. As information ceases to take up a tangible presence in our lives, a subtle shift has occurred between the readers and their information. Reading has become a casual pasttime, text infiltrating every moment of our lives through phones, billboards or computer screens, which often contain information that is augmented in order to capture the short attention spans of today’s generation. This mass availability of information dilutes the messages that are critical to us, and the transformative impact of reading seems to be dwindling. In Hinduism, Buddhism, and even medicine, the concept of knowledge has always been linked to the ecstasy of freedom and the experience of the sacred.¹²¹ In oriental traditions, to *know* means

120 Walter Benjamin. “The Work of Art in the Age of Mechanical Reproduction.” in *Illuminations*. Edited by Hannah Arendt. Translated by Harry Zohn. London: Fontana, 1973.

121 Seyyed Hossein Nasr. *Knowledge and the Sacred*. Albany (N.Y.): State University of New York Press, 1989.

Figure 240. Left.
Upon entrance into
Pneumatica, we see a
floating concrete cylinder,
raised three storeys
above ground.
Figure 241. Right. Light
at the Exeter Library.

ultimately to be transformed by the very process of knowing. This definition takes a different form in the Western world.

In *Learning to Die in the Anthropocene: Reflections on the End of a Civilization*, Roy Scranton lays out the critical issues with our carbon economy, and humanity's inevitable demise. He suggests that we must fundamentally change our ways of living and thinking, (learn to die in our habits) for a chance for survival. One of the key reasons we cannot seem to continue as a species, is our relationship with information. Information has become so abundant and convenient that we fail to value its importance, despite its being critical to mitigating the perpetual destruction of the environment. According to Scranton, we have enough information to stop the Earth's acceleration towards destruction but as a generation, we have formed a habit of "passing on the fear" through social media outlets, rather than acting on it. The information is rarely transmitted into our daily habits, and society suffers from from making any impactful change. By introducing a sense of aura and signifying the physical presence of information, in *Pneumatica*, we highlight this tension.

Separation Between Browsing and Reading

After *Pneumatica*, we reach Building D, which consists of study spaces that we can use after taking out the books from *Pneumatica* or *Lunatica*.

A trend in contemporary library design is the habitual assimilation of the functions of reading and browsing. In the Seattle Public Library, the stacks are scattered throughout the floorplate. This blurring of different functions creates a confusion between the two distinct activities. Reading is an intimate activity that requires focus and privacy, while browsing is also an intrinsic and pleasant activity that incorporates our senses. Each of these functions play a distinct role in the study space, and should be articulated with distinct architectural elements, or “events”. (see p.57 for discussion on narrative sequence)

Figure 242. Public Library - Blurring of distinct functions

Figure 243. Segregation of Functions

Figure 244. *Top.* The concrete cross beams span diagonally across the existing roof structure
Figure 245. *Bottom.* Sectional model of *Pneumatica*, illustrating the relationship to existing building

Figure 246. *Opposite Page*. By encasing the books in this concrete shell, we protect the physicality of the books

Figure 247. - Figure 250. *Top*. Partial Plans, showing Pneumatica from Ground Floor to Fourth Floor

Figure 251. *Left. Lunatica* in relation to rest of library
 Figure 252. *Top. Diagram of Lunatica*
 Figure 253. *Opposite Page. Grid revealing moments in Lunatica*

115. qtd. in. Nicholas A. Basbanes. "The Curious, Magical Library of Umberto Eco." *Biblio*, April 1998, 8. Academic OneFile (accessed February 13, 2017).

I have just entered into a different world. That this strange geometry and light could exist in a seemingly modest residential building seemed bizarre.

The circles became the structure, the doorway, the skylight, the floor. The space seemed to defy gravity in some strange way.

Figure 254. *Top.* Sunlight is transmitted through the onyx panels, creating a warm glow on the interior

Figure 255. *Upper row.* Plans of *Lunatica* corresponding to the rotational movement in the experiential sections

Figure 256. *Lower Row.* Experiential Sections of *Lunatica* illustrating the scholar's circulation around the building

The books are located on four different sides of the walls, on two different levels. I must circulate around the building in order to find the books.

The skylights bring in daylight into the sides of the building, closest to the brick wall. As the day goes by, the light transforms these intimate walkways.

As I walked to the other end of the building, I realized that the large half-circles make up one complete circle.

Figure 257. Upper row. Plans of *Lunatica* corresponding to the rotational movement in the experiential sections
 Figure 258. Lower Row. Experiential Sections of *Lunatica* illustrating the scholar's circulation around the building

The bookshelves seemed to extend
past the roof, reaching up to the sky...

Once I had made the full way around, I moved to the rooftop of the building, where I could see the elaborate roofscape. Here, I could take a shortcut to a different building, or continue down the path, towards *Semiologica*.

Figure 259. *Middle Row*. Experiential Sections of Lunatica illustrating the scholar's circulation around the building, and to the rooftop.
 Figure 260. *Right*. The rooftop leading to the shortcut

Figure 261. *Lunatica* Sectional Model.

LUNATICA

“The lunatic is all *idée fixe* (an idea or desire that dominates his mind: an obsession), and whatever he comes across confirms his lunacy. You can tell him by the liberties he takes with common sense, by his flashes of inspiration, and by the fact that sooner or later he brings up the Templars.”

-Umberto Eco, *Foucault's Pendulum*¹²³

Lunatica can be accessed from various floors from the study building. The library is comprised of a collection of “old science, alchemy, and things of a cabalistic nature”.¹²⁴ Eco had a large collection of books strictly on all things false, which supported his belief that, “the whole world is an enigma, a harmless enigma that is made terrible by our own mad attempt to interpret it as though it had an underlying truth.”¹²⁵ (see p.91, Chapter 3)

The use of the circle as a motif speaks to the mystical nature of the library. The circle is a symbol of continuity, of ideal perfection, and in Christianity, it represents the Holy Spirit. While in *Lunatica*, the circle is a recurring theme, it is dissected and broken into fragments, referencing this perfection yet proposing an alternate, contradictory meaning.

¹²³ Umberto Eco. *Foucault's Pendulum*. San Diego: Harcourt Brace Jovanovich, 1989.

¹²⁴ Nicholas A. Basbanes. “The Curious, Magical Library of Umberto Eco.” *Biblio*, April 1998, p8. Academic OneFile (accessed February 13, 2017).

¹²⁵ Umberto Eco. *Foucault's Pendulum*. San Diego: Harcourt Brace Jovanovich, 1989.

Figure 262. *Left.*
Relativity by M.C.
 Escher
 Figure 263. *Right.*
 Exeter Library by
 Louis Kahn

There is a constant tension between the four walls and the large half-circular arch that sits at an angle. As we circulate around the building, this tension becomes more evident, especially when the two half-circles visually complete a full circle. While the four walls of the central atrium anchor the building and create directionality, this tension between the arch and the walls creates constant movement and makes it difficult to discern, with certainty, the orientation of the building.

The first inspiration for *Lunatica* was M.C. Escher's lithographic print, *Relativity*. By using circular arches as the structure for the stairs, they also become skylights and doorways, disorienting the viewer.

A second reference point was Louis Kahn's Exeter Library. He sought to exemplify the "spirit of a social institution" through his perfect geometries, which signified a cosmological and existential truth. *Lunatica* challenges this idea - the "truth", or reality, is often based on our simplistic understanding of the world.

Opposite Page.

Figure 264. *Left.*
 Fragments of circle make
 up one whole circle

Figure 265. *Right.* Smaller
 circles are also broken into
 four equal fragments

The geometry of the central space in *Lunatica* mirrors that of the courtyard. As discussed earlier, the geometry of the courtyard speaks to the idea of the *ideal*, while the existing buildings speak to an entropic, *real* condition. By reflecting the perfect geometry of the courtyard, we create another dialogue. The concealed geometry behind the existing shell (entropy) in *Lunatica* speak to a hidden ideal. Many of the esoteric sources that can be found in this library are seen as concealed parts of society, and are often denounced by established doctrines. However, for their followers, they become their idea of reality.

Figure 266. *Lunatica* reflects the geometry of the courtyard, but holds an inverse relationship to it.

Figure 267. *Top.* Sectional Model of Lunatica
 Figure 268. *Mid.* Sectional Model of Lunatica
 Figure 269. *Below.* Lunatica rooftop connection to shortcut.

LUNATICA AT NIGHT

During the day, all the courtyard facades appear to be made of the same material, giving the courtyard an ordered appearance. However, at night, *Lunatica* comes alive with a dimly glowing facade. Rather than treating the facade with marble like the other buildings, the facade of *Lunatica* is clad with onyx panels. This is what causes the warm glow in its interior during the day.

Figure 270. At night, the onyx panels transmit light from the interior, giving the exterior a warm glow

LUNAR OBSERVANCE

Once every 18 years, the moon aligns directly above the oculus of the atrium space. On these occasions, the library hosts a gathering, and scholars convene for special lectures, communal readings and ceremonies. The books face outwards in this central gathering space, and only being able to see the pages of the books, becomes the symbolic celebration of the unknown.

As the moon traverses the sky, its light shines on one of the bookshelves, the shadow from the bridge creating a cross. Here, we can witness the inverse relationship between *Lunatica* and the courtyard. While the courtyard allows us to track time by measuring the passing of the sun or the moon, *Lunatica* embodies the gesture of bringing the moon into the atrium.

By designing the building to celebrate such rare and esoteric occasions, it transcends its function as a library, turning into a ritualistic space.

Figure 271. Lunar Observation

Figure 272. Once every 18 years, the moon aligns directly above the oculus.

Figure 273. *Left. Semiotica* in relation to rest of library

Figure 274. *Top. Diagram of Semiotica*

Figure 275. *Opposite Page. Grid revealing moments in Semiotica*

The route to the next section continues at the rooftop of *Lunatica*. From this point, I can see the varied roofscape of the city, a unique world of its own.

Figure 276. From the rooftop of *Lunatica*, we “float” down into *Semiologica*

I slowly made my way down what seemed like an infinite ramp. The books were not organized by title or discipline, and seemed to have strange connections...

I saw others like me, slowly making their way down the ramp, their eyes scanning the elliptical tower of books. I felt a strange communion with these other scholars, as we walked in good faith that our journey would lead us to a serendipitous finding.

When I found titles that intrigued me, I retreated into an opening in the shelves to read.

Figure 277. Experiential Section of Semiologica, illustrating the communal browsing space

As I walked closer to the end of the ramp, I began to hear the sound of voices. I followed the sound, into the interior of the bookshelves.

I was pleasantly surprised to find space drastically different. The space was lined with the pages of books, and a flood of light poured through the elliptical opening.

I ran into a scholar that I had seen in *Lunatica*, while I was reading about the Chacoan lunar observations. I was curious to see what had become of his journey, and we struck up a conversation.

Figure 278. Top. Experiential Section of Semiologica, illustrating the communal reading space.
Figure 279. Opposite Page. Communal Reading Space.

Figure 280. *Semiologica* Sectional Model

SEMIOLOGICA

The sequence of the library ends at *Semiologica*, which contains the largest number of books, and occupies two buildings. According to Eco, it concerns, “science, symbols, and strange languages.” Both Eco and Warburg sought a seamless, fluid connection between subjects, and argued against the strict categorization between disciplines that occur in our language. While the method of categorization allows for depth in a specific field, it does not allow for cross-pollination between different ones.

Therefore, *Semiologica* is organized to allow continuous, fluid movement, spatializing the shape of the infinity symbol. Since the field of semiology can span a multitude of disciplines, the books are organized not alphabetically, chronologically, or by topic, but by the 'strange connections' defined by Aby Warburg and Deleuze and Guattari.

In fact, Warburg's personal library was in the shape of an ellipse. The ellipse in this case is preferred to a circle, in order to create a more expansive space. Aside from this functional reason, the ellipse was an important symbol for Warburg, signifying the moment Kepler discovered that the earth turned on an axis, disproving the belief that the sun revolved around the earth.

The two buildings feature “towers of books” with a continuous ramp circling around both buildings. In the first section of the library, the spines face onto the inside of the tower, which the scholars must ramp

around in order to retrieve the books. This leaves the atrium open, with the study spaces located at the perimeter of the building.

In the second building, the spines face outwards, and the scholars must ramp around the outside perimeter in order to retrieve books. The central space is used as a communal reading space, with an opening to the public exhibition space on the ground level. As the space closest to the public area, it allows for social interaction and exchange of ideas. The final point of *Semiologica* is left to communal exchange.

COMMUNAL BROWSING / INDIVIDUAL
READING

INDIVIDUAL BROWSING / COMMUNAL
READING

Figure 281. *Left.* Relationship between books and scholars

Figure 282. Study model exploring the fluidity of the book tower and the interaction between the spines and backs of the books.

GROUND LEVEL

SECOND LEVEL

THIRD LEVEL

FOURTH LEVEL

Figure 283. - Figure 286. Top. Partial Plans, showing *Semiologica* from Ground Floor to Fourth Floor.

Figure 287. *Top.* Interior view of Building #1.
Figure 288. *Bottom.* Interior view of Building #2.

NARRATIVE #2

Rhizome

SHORTCUTS

Although there is a preferred sequence for the first time user, the library provides shortcuts and multiple access points for the day-to-day user or a seasoned scholar. This change in sequence affords a different experience of the building, while allowing users to cut through and quickly create connections without the *dérive* through the entire library. To illustrate this scenario, the following chapter will follow the experience of a user who takes the shortcuts from *Lunatica*, *Pneumatica*, *Curiosa*, *Semiologica*, and back to *Lunatica*.

I began my day today in *Curiosa*. I recently became intrigued by the history of medicine, and I wanted to see what other connections the library could offer.

After losing myself in books regarding medieval Islamic magic, I slowly made my way up to the rooftop, to reach *Semiologica*.

Figure 292. Top Left Quadrant. Experience in *Curiosa*.
 Figure 293. Top Right. Rooftop of *Curiosa*.
 Figure 294. Bottom. Rooftop of *Curiosa*.

The shortcuts bring me outside, where I can see the time passing by. By breaking away from the use of mechanical clocks, I feel that I am returning to a sense of *slow time*.

I arrive at *Semiologica*. Walking the lengths of these ramps, I always feel my mind at ease, and I often end up finding something interesting.

Figure 295. Top. South Elevation.

Figure 296. Bottom Left. Shortcut facing Semiologica.

Figure 297. Bottom Right. Communal Reading Space in *Semiologica*.

From *Semiologica*, I work my way up the ramp. From here, I leave the building, to the rooftop of *Lunatica*.

Figure 298. Top Left. Browsing in *Semiologica*.
 Figure 299. Top Right. Leaving *Semiologica*.
 Figure 300. Bottom. Entrance to *Lunatica*.

In *Lunatica*, I indulged in what some might call, “all things false”... Alchemy, magic, and healing - all seemed to be an integral, yet forgotten part of medicine's long history.

Figure 301. Top. North Elevation.
 Figure 302. Bottom Left. Path to shortcut.
 Figure 303. Bottom Right. *Lunatica*.

Figure 304. Shortcut roofscape view

CONCLUSION

ANTI-CONCLUSION?

As I make the argument for non-linearity in the organization and the process of acquiring knowledge, it would be counterintuitive to suggest a specific method or a definitive conclusion. There are advantages to a system of both linearity and non-linearity; order and entropy; ideal and real; sacred and profane. Eco, while arguing against the strict categorization apparent in our systems, devised his own, more complex system of organization. By addressing these tensions, we can appreciate that they are not mutually exclusive, that it is somewhere between order and chaos that we can find meaning and depth. The research remains open-ended, and aspires continuous exploration, development and multiplication.

INTERPRETATIONS OF THE PROJECT

Similar to the open-ended nature of the conclusion, the project can be interpreted in two different ways. Firstly, the sequence of the different categories can suggest an ideal and primary route, which becomes the prescribed route through the building. Eco's collection was an endeavor to find "The Perfect Language", and thus, *Semiologica* remains at the end of the sequence, only to be reached after the other categories. This method becomes a metaphor for a labyrinth. The route is long and arduous, and the scholar's hope of finding a direct answer is quickly dissolved as he walks around the lengths of the library. Just when he is about to give up hope, he may reach a moment of serendipity, and discover a title that fills a "piece of the puzzle he'd been poring over"¹²⁷.

The project can also be understood as a maze, which coincides with the idea of the rhizome. Rather than the suggestion of a prescribed route, the building encourages a more rhizomic connection. The scholar can move around and take shortcuts as he wishes, and is able to quickly move from one topic to another. Based on the order of movement throughout the library, it can change his experience.

¹²⁷ Steven Johnson. *Where Good Ideas Come From: The Natural History of Innovation*. New York: Riverhead Books, 2010.

ANTI-ARCHITECTURE

The idea of the anti-library is another overarching concept that connects ideas of non-linearity, browsing and serendipity. The anti-library emphasizes “a collection of books that we have not read”, signifying the unknown, and relies on serendipity and the organization of the library to discover the unknown. The anti-library identifies the library as a research tool, and in fact, is an argument against using the private library as an ego-boosting collection of books that we have read. This concept is a metaphor against the habitual idealization of the known, and our “tendency to fill in the gaps of our understanding with concrete objects of “knowledge””. This compulsion is what leads to the rigid categorization of an otherwise complex and chaotic world, and it is also what keeps us from seeing and learning beyond our systems and ideas. The concept of the anti-library recognizes and celebrates the foreign and unexplored territories, but our culture is so firmly established that the argument against it remains stronger than the former. Architecture is also based on a system of established principles, trends and ideas, and we can draw parallels between the anti-library and anti-architecture.

The discussion of anti-architecture begins with Venice, the multi-faceted character that has provided the research with layers of meaning and richness. Venice is a mercurial and mysterious city, its essence camouflaged by clichés and sentimentalism. It reveals an intimate place, full of atmosphere and memory when we get off the beaten path, slow down, and allow ourselves to get lost in its labyrinth. Its essence derives not from its iconic buildings and squares, but relies heavily on its atmosphere, a combination of its distinct canals, streets, and smells.

The sense of place, in neuroscience, is based on our movements around a space, and Venice, the all-pedestrian city, encourages movement, and moreover, is ideal for getting lost in its winding narrow alleys. This labyrinthine quality can be attributed to a lack of a distinct front and back of the street. A typical city has a front of the street, and a back alley, which supports the functions of the front. Most of the activity happens on the street, with facades designed to visually captivate the passerby. The alley typically becomes a leftover space and are often left neglected. Venice, on the other hand, resists this rigid classification, and the network of meandering alleys form a more fluid and organic structure. By resisting this hierarchy, the focus turns to the experience of moving through the narrow alleys.

The library also serves as an antithesis to a monumental, capital A type of architecture. Rather than a newly constructed object in the city, the library is an intervention in a cluster of existing buildings. t

This contradicts the idea of architecture as a single entity within a city, and poses the idea of architecture as an integrated part of the whole. Rather than creating a completely new building, the library reinterprets and manipulates the existing conditions of the site, intentionally blending in with the fabric of the city. This subverts the building - city relationship in many ways. We often see the city as a conglomeration of buildings. However, in this instance, we prioritize the unity of the city's fabric over the acknowledgement of the building. By concealing the building within a seemingly consistent fabric, the discovery of the building becomes more

serendipitous and intriguing. It also suggests a broader realization of the city - that what we know, through what we see from the exterior of the buildings, is not what the city holds. As we see a constant evolution of Venice at the interior and elemental scale, what we don't see becomes more important than what we do see.

At the scale of the building, anti-architecture can allude to the number of elements in the building that speak to an absence of things. For example, the wall of the Rare Books library is made of a plaster cast wall, consisting of panels of negatives of books that had been burned or banned throughout history. In the courtyard, we see a reflective glass wall that encloses the 18m by 18m geometry of the courtyard. By reflecting the courtyard, we create the illusion of an infinite plane. The continuous rhythm is an illusion but nevertheless, creates a powerful sense of an expansive space.

Anti-architecture also speaks to the number of elements in the building that come alive on very specific occasions. For example, the atrium space in *Lunatica* is signified once every 18 years, when the moon passes directly above the oculus. In this moment, the light from the moon shines on one of the bookshelves, and with the shadow from the bridge forms the shape of a cross. While the atrium space can be enjoyed on a daily basis, the rarity and uniqueness of this particular occasion allows the building to transcend its mere

program and physicality, and its temporal distance gives it a magical and sacred character. It becomes attached to a physical (the position of the moon particular to that location), temporal (every 18 years) and cultural (society of scholars who gather on this specific day) context, and attains a sense of aura. In a contemporary world that values equality over uniqueness, this presents the subversion of an architecture in the age of electronic reproduction.¹²⁸

128 Walter Benjamin. "The Work of Art in the Age of Mechanical Reproduction." in *Illuminations*. Edited by Hannah Arendt. Translated by Harry Zohn. London: Fontana, 1973.

LIMITATIONS OF OUR SYSTEM

One of the challenges of the project was to contain distinct topics in a comprehensible whole, as many elements of the theory do connect, but not necessarily in a linear fashion. However, in order to tell a story so that it can be understood, we must simplify, diagram, and organize the thoughts in a linear manner. As I developed the thesis, I found myself facing a similar kind of limitation as the one I described in the thesis.

APPENDICES

The appendices include discussions and explorations that have been critical to the thesis, but have not found their way into the main body of the text. The first section, Appendix A illustrates projects I had undertaken in the past two years that have shaped the thoughts behind the thesis project. Looking back, it is clear that each project has in some way helped voice and materialize some of the interests and concerns that had been forming inside me without my knowledge. Although I did not have a clear goal in mind, this section illustrates the importance of serendipity in research.

Appendix B goes into the specifics of the project, and discusses the development of the courtyard, along with the development of my ideas on the topic of categorization, knowledge, the ideal and the real. The section illustrates the synergy between the development of the central ideas and the design, while also discussing some of the functions particular to architecture.

APPENDIX A

RESEARCH PROCESS

The journey that led to the discovery of the topic was, in a way, serendipitous. Not in the sense of “happy accidents” (Ferguson, 1999); or “finding out things without searching for them” (Austin, 2003), but more in the sense that these “happy accidents” were in some way, meaningful to me, and led to fill a “piece of a puzzle I'd been poring over”. (Johnson) The series of projects that led to the thesis exhibited not necessarily a clear nor linear series of connections, but have influenced each other in some way or another. By discussing the process, I hope that I can illustrate the benefits of breaking out of the confines of our research; leaping into a different dimension; taking a leap of faith; a line of flight or just following wherever the research will take us. Part I will discuss the series of projects that led to the topic of 'A Library of the Mind'. Part II will illustrate the development of the research and design process. Part III will provide a summary of the design process, and what I have learned.

Figure A 1. Rhizome - From *A Thousand Plateaus* by Deleuze and Guattari.

Figure A 2. Project #1 Model.

Figure A 3. Project #2 Model.

Figure A 4. Project #2 Model.

Project #1.

Perceiving the city as an already complex organism, I was fascinated by the strategy of “typological cannibalism”. The strategy takes the existing conditions and adds, parasites or subtracts from it, in order to deepen social interactions and multiply complexities. The project challenged the widely idealized open plan by implementing a large brass wall at the center of Crown Hall, and creating a tool for directionality, spatial compression and release, and creating points of focus. While using the same structure, the intervention subverted Crown Hall's spatial organization and its interaction with its users.

Project #2.

Developing this idea further, I took an interest in Brutalist buildings, which are often underappreciated by the public due to their stark and massive form, and their lack of an instantaneous visual allure. Brutalist buildings are extremely rigid in structure and form, and are built to withstand the rigorous test of time. Initially fascinated by the structural and formal integrity of its built form, I began exploring my ideas through Robarts Library, a social institution housed in a widely unappreciated shell. The project sought to identify moments of heightened “terror” in the Brutalist building, as a method of emphasizing and embracing these elements that are so critical to their integrity and concept, helping them to be understood in the face of the public. The project identified the Robarts Library as a building that could

be resilient through environmental changes due to its physical rigidity and programmatic adaptability, and sought to develop a new cultural understanding towards the brutalist structure.

Project #2 - Phase #2

For the second portion of the project, I further delved into the ideas behind the Robarts Library. The discussion of resilience led to a discussion of the Anthropocene. What interested me about the topic of the Anthropocene was that in contrast with discussions on sustainability, it focuses on changing the way that we think and live. This idea is critical today, in a time when we have an infinite availability of information available on the internet, but the information that we receive rarely transforms our actions. At this point, the Robarts Library became a double agent - it represented the resiliency of architecture through time, while becoming a symbol for knowledge. The project was presented through narratives of three distinct time points - 30,000BC, 2050AD, and 2500AD. As the Robarts Library travelled through these scenarios, it illustrated the (need for) resiliency in architecture, while also emphasizing our need to re-associate the sacred aspect with knowledge.

The main criticism of the project arose from the fact that by treating knowledge as the sacred, I was sheltering knowledge within the building, instead of breaking it open. Only in 2500AD, the atrium of the building breaks

Figure A 5. Robarts in contemporary world

Figure A 6. 30,000BC

Figure A 7. 2050AD

Figure A 8. 2500 AD

Figure A 9. 30,000BC

Figure A 10. 2050AD

Figure A 11. 2500 AD

open, to become an essential ecosystem for plants and animal species. The criticism redirected my perception on knowledge, while I still strongly believed in the urgency for a deeper connection between our society and the information we are presented with. I later discovered Umberto Eco, and the theory that, “it is our knowledge — the things we are sure of — that makes the world go wrong and keeps us from seeing and learning”.¹²⁹

129 Lincoln Steffens. “Radiant Fatherhood: An Old Father’s Confession of Superiority” 1925.

Figure A 12. Reconceptualization of Roberts Library.

Project #3.

For a different course, we were to prepare a market study and identify a trend for the future in the field of architecture. I identified libraries as a typology that was undergoing drastic transformation, and found a niche in the field of library retrofits. This helped me to identify the growing trend in libraries, while I became skeptical of the direction toward which the library typology was headed.

Figure A 13. Chart illustrating the shift in library functions

Figure 1: TPL Trend over 4 years

Figure B 14. Connections between seemingly unrelated projects.

APPENDIX B

THE FUNCTION OF ARCHITECTURE

Architecture has the ability to change the way that we inhabit space, while also signifying intellectual concepts. The multi-faceted nature of architecture has been ideal in exploring and establishing connections between phenomena that are in seemingly different, even contradicting realms. For instance, we address speed in the physical realm, through the strategy of the *dérive*. While this strategy helps to physically slow us down, it also alludes to broader, more intellectual concepts such as the labyrinth and the rhizome. Another instance would be in addressing the courtyard space. While the perfect geometry and the X instills a moment of pause by creating a sense of visual harmony, it also functions as a signifier of continuity; order and the ideal.

The tensions arose when the functions did not align with the legibility, or architectural “connotations” of certain building elements. For example, the shortcuts on the roof provide a rhizomic connection amongst distinct topics, but the stark X does not communicate as a “rhizomic” structure. The courtyard, in fact, was the most complex space because while expressing many layers of meaning, it also served as a space that was to instill the physical and sensual experience of awe and slowness, utilizing the architectural strategies that I had identified through the case studies.

An example of a building whose symbolic and sensual understanding perfectly align would be, Louis Kahn's Phillips Exeter Library, where the Platonic geometry of the atrium eluded to the spirit of the social institution and cosmological truth, while also instilling a sense of calm and surprise. The central courtyard is a space to, "impress upon the reader the accumulated knowledge of centuries available for study... It is a place to pause, to reflect upon the knowledge, history, and tradition embedded in the books,"¹³⁰ and it became the biggest challenge of the project. In fact, the courtyard underwent several iterations before reaching its final form, and I believe that it can continue to be developed.

¹³⁰ Jordy, William H. 1974. "Criticism: Kimbell Art Museum, Fort Worth, Texas; Library, Phillips Exeter Academy, Exeter, New Hampshire". *Architectural Review* 155, 928. June 1974. p330-335.

DEVELOPMENT OF THE COURTYARD

The courtyard has two distinct functions. The first condition is an innate understanding of the space, through the visual and bodily senses. The geometry and proportions of the courtyard create a sense of harmony and expansion, instilling a moment of pause before entering the reading space - a strategy that is employed in various social and academic institutions, such as the Phillips Exeter Library, the Cloister of Santa Maria della Pace, and the Beinecke Rare Books Library. Secondly, the courtyard provides an intellectual understanding of the library as we address the tensions between order and entropy; between the ideal and the real; while providing a metaphor for the library and its categorization. The two functions have a synergetic relationship, since an intellectual realization becomes much more powerful if we are inspired by our senses.

Iteration #1

The courtyard's existing geometry very closely resembled a 12.5m by 12.5m square, centered a stone well. It seemed that the courtyard had once been a rectangle of approximately 12.5m by 22.5m, but a brick wall had been added over time, marking out a geometry closely resembling a square. This condition of pure geometry is not common in Venice, where buildings were built and have adapted over time to accommodate practical functions, not necessarily following a strict grid. It was intriguing to conceive this, perhaps accidental, geometry as a state that we constantly, perhaps instinctively, strive towards. We try to create order in an entropic condition.

The geometric perfection was also an architectural strategy that I had identified in several case studies, such as the Phillips Exeter Library; the Cloister of Santa Maria della Pace; and the Scholar's Library. In addition to instilling a moment of pause at the initial moment of entry, these geometries allude to broader ideals of perfection and continuity. Learning from these examples, I sought to emphasize and articulate an "ideal" state through the courtyard,

Figure B 1. Courtyard Iteration #1.

which would also become the first point of slowing down the pace before entering the library. The geometry of the courtyard met closely with the line of the existing buildings, creating a perfect square of 12.5m by 12.5m. A grid of 2.5m was applied onto the courtyard, further emphasizing the rhythm.

A critique of this iteration arose from the lack of clarity in the courtyard. For example, the reading area of *Semiologica*, and the concrete column in *Pneumatica* were protruding past the 12.5m by 12.5m square, and were muddling the language of the courtyard.

Iteration #2

Several decisions led to protruding the square past the line of the buildings. First, it was the desire for the “ideal” geometry and the existing buildings to be treated as distinct entities, while having a more dynamic relationship. By pushing the geometry past the line of the existing buildings, the “ideal” geometry seemingly contains the entropic condition at grade. However, when we reach the second floor, entropy wins again, and we return to the existing alignment of the buildings. In elevation, this is a subtle, but noticeable shift, and this allows us to create a sense of rhythm at grade, while also highlighting the existing state of the buildings.

The second decision was coupled with the desire to treat the courtyard itself as an independent volume. The courtyard was to become a vital communication and circulation corridor between the different buildings, while its geometric perfection emphasized the initial experience of void space and visual harmony. By creating the illusion of a perfect geometry, the courtyard was treated as a place of importance. By treating the courtyard as a distinct volume, the non-programmed space is accorded the highest importance.

In order to create the illusion of a geometric space, a repeating grid was applied onto the facades facing the courtyard, which is a strategy that is also seen in irregular plans like that of San Marco Square. Despite the shifting alignment

Figure B 2. Iteration #1. The protruding elements were muddling the language of the courtyard
Figure B 3. Iteration #2. By treating the courtyard as a distinct volume, the non-programmed space is treated with highest importance.

of the facades, the regular rhythm of the bays create the illusion of a contained volume.

A bridge forming an X was also added to the courtyard, its dimensions forming a Platonic cube. This bridge connected the different sections of the library, while acting as a secondary method of visually containing the courtyard space. In order to define the geometry of the square, the oversized concrete columns were given a strong, trapezoidal shape that articulated the corners of the square. In order to articulate the inner square, the bridge had dark metal panel walls leading up to the point where the bridge meets the columns, suddenly opening up views into the courtyard once the visitor had entered the inner square. The result was a stark and rigid element that overpowered the existing buildings.

A critique of this iteration arose from the heaviness of the bridge and its stark geometry. The bridge was to function as a fluid, rhizomic connection between the different buildings, but while doing so, it communicated something very different - rigidity. In his essay, "Function and Sign: The Semiotics of Architecture", Umberto Eco argues that architecture's denotation (primary function - architecture as functional object) and connotation (secondary function - architecture as symbolic object) must be treated with equal importance because all codes must be viewed within their cultural context.¹³¹

¹³¹ Umberto Eco. "Function and Sign: The Semiotics of Architecture." in *Rethinking Architecture: A Reader in Cultural Theory*. edited by Neil Leach. London: Routledge, 2010.

Figure B 4. Above. Iteration #2.

Figure B 5. Shortcut conditions in Iteration #2.
The language of this iteration was too rigid.

Iteration #3

The third iteration of the courtyard arose in response to the critique of the previous two iterations, and also in discussion of the anti-library and anti-architecture.

The unwanted rigidity of the courtyard's language was softened with a subtle shift in materials. The dark metal wall panels were replaced with tall diffuse glass, and the experience of expansion in the courtyard space was achieved by elevating the floor where the bridge enters the bounds of the square. The trapezoidal concrete columns were replaced with tapering timber columns with a concrete base, which lightened the reading of the courtyard. The columns were also brought closer to the existing well, creating a ceremonial space and heightening the sacred value of the courtyard. The roofspace was animated and returned to its existing condition with rooftop gardens and balconies, and rather than isolating the experience of walking to the bridge, the activity bled into a second streetscape on the rooftop.

Eco described the anti-library as a library of books not yet read, and often said it was much more important than the books that had been read, extending the view towards our fundamental attitude towards knowledge. The things that we know, the things that we are "sure" of, makes the world go wrong and keeps us from seeing and learning.

The courtyard walls at grade were clad with a reflective surface, creating the illusion of a continuous ground plane. However, over time, it becomes apparent that the infinite surface is not real, not unlike the illusion of the perfect geometry in the courtyard.

Furthermore, the facades adopted a more vernacular language - rather than emphasizing the rhythm with vertical fins, the bays retracted and cascaded

Figure B 6. Model and renders of final courtyard iteration.

back from the surface, providing a slit window where the fins used to be. This retained the rhythm, while providing a less intrusive, more subtle experience of the geometry in the courtyard. The slit windows provide a small connection between the interior and exterior and the bays glow dimly at night.

Figure B 7. Courtyard Elevations

Figure B 8. Various iterations of the courtyard.

SEP. 6th 16.

RESEARCH IS LEADING ME TO SEVERAL DIFFERENT CONCEPTS THAT I BELIEVE WILL CONSTRUCT THE LIBRARY & THE MIND. THE PROBLEM IS THAT THEY ARE ALL DISTINCT CONCEPTS ON THEIR OWN...

- SPACE FOR SLOW / REFLECTIVE READING
- BROWSING (DERIVE / STROLL)
- LABYRINTH
- RHIZOME
- SERENDIPITY

SOME OF THESE CONCEPTS ALREADY HAVE ARCHITECTURAL IMPLICATIONS. FOR EXAMPLE, DERIVE IS A SERIES OF ATMOSPHERES / AMBIANCES. A LABYRINTH IS... A LABYRINTH AND ASY WARBURG'S LIBRARY (RHIZOME) IS AN ELLIPSE.

EVEN IF THESE CONCEPTS CONNECT

CONCEPTUALLY / CULTURALLY, IT MAY BE HARD TO TIE THEM TOGETHER ARCHITECTURALLY. DOES IT MAKE SENSE TO FIRST FOCUS ON ONE CONCEPT, NATURALLY LEADING TO THE PROGRAM?

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