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The First Icomde A Library for the Information Age

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The First Icomde

A Library for the Information Age

by

Daniel Elias Todd

A thesis submitted in partial fulfillment
of the requirements for the degree of
Master of Architecture
School of Architecture and Community Design
College of Visual and Performing Arts
University of South Florida

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THE FIRST ICOMDE: A LIBRARY FOR THE INFORMATION AGE

Daniel Elias Todd

ABSTRACT

The library has existed as a repository for knowledge for centuries. However, in spite of the information revolution and its watershed component, the internet, this institution has found itself fundamentally unchanged. Great strides have been taken to adapt the library to this changing world, but these incremental changes are timid and reactionary.

Through the internet the floodgates have opened; individuals are creating and sharing information both personal and academic, in the form of not-so-private journals, works of creative fiction, works of journalism, works of scholarship, and every other form of intellectual (and not so intellectual) propagation imaginable.

Additionally, advances in computer display and input technology are breaking down the conceptions of what a computer is and how we interact with them. The trend is pointing to a future where computers are no longer objects, but an integrated component of our built environment, capable of responding to practically limitless simultaneous individual users.

This thesis will take the lead on these growing trends and create a new type of information age institution to evolve alongside, rather than supplant, the library: Icomde. This new institution will explore the possibilities of these new technologies while embracing the spirit of the information revolution. It will create a unique place where people can experience state of the art means of information creation, interaction, and collaboration. Finally, when the technology present has been fundamentally surpassed, the Icomde will be dismantled and the pieces distributed to dozens of locations throughout the world to found new Icomdes, with the original site becoming host to the next iteration of whatever advanced technologies will follow.

This thesis will seek to examine the cultural, social role of the library as it has evolved and has been propagated through the course of human events, using design and history research, so as to employ the 'spirit' of this place as completely as possible in spite of the proposed radical paradigm shift. It will also use logical argumentation to organize trends in web content generation and publication into patterns that can be interpreted and acted upon in a forward-thinking fashion rather than a reactionary one.

INTRODUCTION

The Problem

There is a consensus among those who put themselves to the task of discovering the “library of tomorrow” – no one knows what that is. In my research I have discovered many questions, and many ideas, but few answers.

Geoffrey T. Freeman, an architect, believes in the traditional role of the library. He also, however, believes they need to evolve. (C.L.I.R.) He asks, and correctly so, why would one wish to use the library, when one could theoretically access whatever information or entertainment one needed from the comfort of whatever locale they happen to chose to nestle with their laptop computer in? Why is the library, a facility that in the twentieth century became a machine for the storage and organization of printed material, still relevant in the age of wireless digital information access? This is a question that must be answered before we can proceed. It could be the most important question.

However, Freeman claims that what no one could have expected is that in light of the information revolution, maybe in spite of or maybe because of, library usage in this country in the past five years has actually increased – in some places as much as doubling.

Freeman believes that it is the synergy, not the dichotomy, of digital media and print media that has made today's libraries so important. The library is a place where new and emerging information technologies and cultures can be combined with traditional knowledge resources in a service rich, commercial free, highly social environment. The internet, for all of its capacity of expression for raw thought and knowledge to encircle the globe and spread ideas as never before, still isolates the individual. It is the library that focuses on community.

Though much success has been met in the area of nurturing the new library into the future, Freeman believes that the answer has not yet been discovered. He believes that careful and continued focus on how these technologies are evolving is still needed before one can design the model library of the future. It is no longer simply about information gathering, but thanks to the power of the computer, also about communications and publication. It will be the union of information gathering, transfer, and presentation that will define the new library.

Freeman charges architects to design libraries that learn. Spaces must be designed to be so flexible, that the designation of areas can be continually evolved based on the attentive examination of the changing patterns of library use already discussed. As the dominance of independent study steadily loses precedence to more group oriented projects and communal endeavors, the nature of the spaces within the library – quiet areas versus discussion areas, will be threatened, and if they do not bend, they will get broken.

He proposes the expansion and addition of “laboratory,” “studio,” or “development” spaces within libraries to present epicenters of production, creativity and progress, rather than simply research.

Thanks to technology, the speed at which a library operates has also increased dramatically. Freeman claims that what once took two weeks now takes two hours. Designers of libraries must be critical and attentive to the speed at which life goes by, and design their spaces accordingly. Flexibility, he stresses, flexibility is the key.

Scott Bennet is a library planner by trade, and his insights fall along two lines. (C.L.I.R.) The first of which is related to this topic peripherally, but it is like the wake of a passing ocean liner upon our small vessel; rocking of the boat will take place. He speaks of a paradigm shift within higher education away from a culture of instruction and towards a culture of learning. While this superficially may seem to be merely juggling semantics, it is in a broader scope the juxtaposition between an end and a means. How does this effect library design?

The mission of libraries has been the storage, organization, and preservation of books. If this paradigm shift is to be correctly applied to library design, the purpose of libraries becomes a place to enjoy and benefit from those books. The responsibility of the library designer is clear. While once all of a library’s problems were believed to be solved by simply throwing more square footage to the domain of clerical and organizational pursuits, the new doctrine has become just the opposite. Space for the experience of using the library is now the premium and space for the functions of the library

are being marginalized. In fact, the spacing between stacks is being compressed and even the number of books on the stacks is being increased to allow more floor space to be given over to the user, rather than the material stored.

The second issue which Bennet discusses is the domestication of the library. He admits this is a broad, nebulous concept which he does not truly possess the vocabulary to describe. But he poses the question, how can the library be made more like the home? First we must understand why this question is being posed. He insists that, according to surveys, discussion, debate, and teaching amongst peers, is most likely to occur in the home. Bennet believes, why the home and not the library? But how would one make the library more like a home?

There are two angles to this. The first is the introduction of the café into the library, already widespread in bookstores, and eliminate the taboo against food and drink inside the library. This aspect, the introduction of beverage, or food, into the library setting is in itself a major and fundamental step towards the domestication of the space. The second angle is to loosen, not eliminate the taboo against noise inside a library. Bennet suggests creating three levels of noise zoning; conversational, quiet, and silent. The first of which would be, of course, the domesticated aspect of the library, areas where conversation and social mingling were encouraged. Quiet areas allowed conversation, but at a much lower volume, and finally, silent areas are the sanctuaries for those who seek the escape to the library's traditional nature; conversation here is forbidden.

Those two angles, Bennet says, are the first steps towards the domestication of the library, and the evolution of the place away from sterile, static study, and to more of an open forum for discussion, debate, and face to face communication.

Bernard Frischer is the director at an institute for advanced technology, and he dreams of the technologically empowered library. (C.L.I.R.) First, he stresses that he does not believe that electronically presented data can ever replace a physical book. But he does offer three points of argument for the introduction of the high-tech into this low-tech realm.

First of all, he dreams of a type of electronic data presentation over which libraries could have a monopoly. Stuff, as he puts it, not intended for dissemination over the internet. Frischer proposes that this could entail large three dimensional theaters where information stored in a private library network could be presented, shared, created, and developed. He muses about the day where projects collaborated upon by libraries across the globe could rebuild ancient cities and allow visitors to the library the ability to wander about and explore these cities in virtual reality. The technology, he claims, for this already exists. It's simply a matter of making it a reality.

Second, and this is a point echoed by others and discussed in-depth previously in this essay, thanks to today's technology the library can be a place as much for the production of material as it is for the digestion of material. He

suggests the creation of hybrid workstations empowered not only to allow students to gather information, but collaborate with others on projects that allow for the production and creativity.

Third, he feels that the space within the library must be rearranged to take advantage of its primary power over the internet: the community building power of real physical presence.

Christina A. Peterson is a librarian, and for her, the future of library design isn't really a matter of technology; it's about unity. (C.L.I.R.) In the past, a library was a library. Today however, there are many types of libraries; public libraries, university libraries, research libraries, medical libraries, art libraries (or galleries) and even music libraries. In a unique venture in San Jose, at the library of her employ, the Martin Luther King library, the gap between the public library and the university / research library has been erased. In this so called joint-use library, the public as well as students can mingle and interact, learn and read together, in a remarkably successful way.

Usage reports and statistics show that the public utilize the academic research portions of the library almost as much as they do the public sector, and the same could be said for the students. Strict organization and monitoring is still required, to, for example, keep children in the children's section and not playing tag in the study areas. The separation and definition of spaces however only seems to empower the unity of them rather than detract. This venture has proven to be a remarkable success, and a model for future library planners.

Peterson encourages additional unity between currently separate affairs, bringing the art gallery and the music world into the traditionally book-filled realm. Books along with art and music create a circle of culture that need not be kept separate; when combined, they bloom.

Web 2.0. The term became notable after the first O'Reilly Media Web 2.0 conference in 2004. (O'Reilly) Although the term suggests a new version of the World Wide Web, it does not refer to an update to any technical specifications, but to changes in the ways software developers and end-users use webs. Web 2.0 embodies collaborative information compendiums, authored creative content, journals or journalism, social obsessions, and discussion and debate venues.

Self Publishing. Self-publishing is the publishing of books and other media by the authors of those works, rather than by established, third-party publishers. An agent is still employed to print and bind the material, but all other aspects – editing, marketing, and so forth, are in the hands of the author. Although it represents a small percentage of the publishing industry in terms of sales, it has been present in one form or another since the beginning of publishing and has seen an increase in activity with the advancement of publishing technology, including xerography, desktop publishing systems, print on demand, and the World Wide Web.

Digital Readers. Rather than looking at digital, or e-book, readers as an opposition to books and the 'right' way of doing things, realize that the digital reader is confirmation of the fundamental nature of the book - it is a thing, not a service. It is a thing to be held in one's hands and is a haptic experience as much as it is a visual and mental one. Although use of a digital reader means that the form has changed, the fundamental experience of reading has not changed for most users.

Research Methods: Interpretive-Historical Research

The only way to anticipate the future is to understand what has come before. If this thesis is to explore a solution which shall span cultural epochs, it must study all of the changes, evolutions, and revolutions which have come before. Only then can the next phase of the library come into play. The concept of the library is well over two thousand years old, and it is not a concept which will vanish. The question is not, will the library go away, but what new form will it take, and when?

My research will examine the development of the library from a place of exclusion and privilege; that is, only those of a specific rank, usually within the church, were allowed access to the books, and furthermore a general lack of literacy among the population; through its evolution throughout the ages into its current form, which embodies a new form of

privilege and exclusion; whose books are allowed to be on the shelves, and why? This evolution will of course also be affected directly with the advent and development of technological printing means.

I will also attempt to set aside the pragmatic and objective data and examine the ever evolving cultural significance of the library, a thing based on thought and feeling more than actual use or demand, as that element will remain key to whatever solution I devise, however distant from the traditional library I go.

Finally, I will document the library's reactive – and thus flawed - approach to the changing ways in which the world shares information in the current decade and beyond, in an attempt to avoid the pitfalls.

Research Methods: Logical Argumentation

I choose logic because it is not only a method of research analysis, but a problem solving technique as well. If I am to be venturing into the unknown, into areas where the only consensus is that no-one knows, I will need a logical system which can take what is and extrapolate what can be from that.

Using logical argumentation I will identify the pertinent aspects of the discourse; what things are related to current library design and what issues threaten to supplant these things?

These things include the way information is created and shared, the needs for this information, the speed at which the systems operate, how economics, business, and capitalist considerations work into all of these systems and, categorically speaking, how all of this falls into the realm of work, recreation, relaxation, or creation. I will deduce associations between these pertinent aspects, and any additional peripheral components which may come into play.

These associations can be further grouped and divided into other categorical systems; The traditional library, Web 2.0, self publishing, digital readers, mobile computing, emergent input and output computer technologies, constant, instant, perpetual, and immediate access. A hierarchy can be established from these categorical systems, and from that the beginning of an architectural program.



Figure 1: University of South Florida Library, Tampa Campus

CASE STUDY 1 - University of South Florida Research Library, Habitation and Usage

This case study was conducted on a large university research institution library, namely the USF Library located in Tampa, Florida. It was conducted as a silent observational survey in which students were counted and their activity and location, arranged into several loose categories, and recorded. No specific information about the students, their business, or their reasons for using the library was obtained. Each of five surveys were conducted on a different consecutive day of the week at a different time. These days and times were,

Tuesday, May 20th 10:00 - 11:00 pm

Wednesday, May 21st 10:00 - 11:00 am

Thursday, May 22nd 3:00 - 4:00 pm

Friday, May 23rd 8:00 - 9:00 am

Saturday, May 24th 5:00 - 6:00 pm

These times were chosen arbitrarily (though the library's hours of operation were obviously a factor) and not selected in anticipation of any pattern in the library's business. However, both Sunday the 25th and Monday the 24th were not recorded due to the Memorial Day holiday, which would present anomalous results. Since study was conducted during the summer semester, the library was far less active than it would be during the fall or spring semesters.

The student locations were divided simply by floor, though on the 1st floor the customers in Starbucks were counted separately. At one phase of the survey I counted students in the lobby areas of each floor as well as group study rooms separately, but I soon absorbed these counts into the general count for each floor as I noticed inconsistencies in the way I was counting them. Grouping them back in with the general floor count erased these inconsistencies. The 6th floor of the Library is occupied by Library Administration, Academic Computing, and a staff area so there is no appreciable student use of the floor.

When counting, I would associate each space with a moment in time. Once those present in that space were counted, I would move on to the next. That space was then 'done'. If I returned to that space later, even moments later, and the numbers present had changed, I would not recount or adjust the numbers. Each survey took anywhere from an hour to thirty minutes, depending on how busy the library was.

The types of activities recorded were as follows.

Loiter : Individuals simply standing around with no clear objective. Students who seemed to be going somewhere were not counted, here, or in any other total.

Relax: Individuals who were seated and occupied, but not engaged in any type of discernable school-related activity or using a laptop. They could be reading a novel or having a drink, or simply looking out the window.

Computer Lab Station: Individuals using the sit-down desktop PCs in the large lab of the 1st floor of the library.

Computer Terminal: The e-mail stations designed to be used while standing up.

PC Group: The spacious group-pc stations to the back of the computer lab. Interestingly, more often than not these were used by individuals and not groups.

PC Library: Any of the many PCs throughout the library designed for use with the library website, and not general activity such as in the computer lab.

Multimedia PC Terminal: Any of the PCs in the multimedia section of the 1st floor of the library, which is not part of the computer lab but rather the library proper.

Study: Any student sitting down with work in front of them.



Figure 2: USF Library Stacks

Study with Laptop: The same as above, but with a laptop involved. This laptop may or may not be actively in use, it simply was to be present. I did not count laptop bags unless the laptop itself was clearly visible.

Staff: Any library staff person either at a desk or out in the stacks reshelving.

Staff in Office: Any library staff person who seemed to be in a personal office.

Stacks: A person actively looking for something in the stacks. A rare beast indeed.

Multimedia Stacks: As above, but specifically in the multimedia section of the library on the 1st floor.

Micro Stacks: As above, but specifically in the microfiche/microfilm section of the library on the 2nd floor. It smells like ammonia in there.

Special Collection: Likewise, but specifically in the special collections section of the library on the 4th floor.

Starbucks Line / Drink: Anyone in Starbucks who was there simply as a customer.

Starbucks Study: Just like studying in the library, but in the Starbucks instead.

Starbucks Study with Laptop: As above.

Other: Anything that did not fall into any other category, or individuals whose activities simply could not be pinned down by cursory observation.

Findings

For the data visualization, I grouped the categories into several broader categories. As follows:

Comp Lab: Computer Lab Station, Computer Terminal, PC Group (Numbers from the library computers and multimedia stations were not included, as these are library functions and not part of the computer lab.)

Stacks: Stacks, Multimedia Stacks, Microforms Stacks, Special Collection

Study: Both library and Starbucks.

Study with Laptop: Both library and Starbucks.

Other: Everything else.

Numbers for individual days are presented in the charts following this report. I feel that the most important information for this case study is the ratios between the activities, and not the numbers themselves, nor the day nor time of day. Thus, a chart was created to show the averages of all uses across these five days.

The use of the **computer lab** dominated over the entire rest of the library. A **total of 260** users were witnessed using the lab across the five days, at an **average of 52** students per day. This made up **32 percent** of the total library use during the study. (Note: The computer lab that is part of the Tampa Library's Learning Commons is the largest computer lab on campus. Since the building is located near some heavily used classroom buildings, students tend to come to the building as one of the nearest and largest labs.)

Those witnessed **studying totaled at 226**, and those using a **laptop totaled at 157**. The **averages were 45.2 and 31.4** respectively, with **28 percent** of accounted individuals using the library as a place of study and **19 percent** using it as a location to use their laptop. It is also worth noting that if **combined**, as the distinction between these two may be purely arbitrary, the share becomes **47 percent**, which allows it to rank higher than the computer lab use.

A grand **total of 19** individuals were witnessed using the stacks across five days, which averaged out to **2 percent** of total library use.

Finally, **31.8 percent** of recorded persons made up the **other** category.

Conclusions

Most individuals are not using the library as a library (i.e. using the library's books or electronic resources), but as a study hall. Though it is unclear how many of the 47% of students who were studying or using their laptops in the library were doing so with the aid of books obtained from the stacks, with the consistent extremely low volume of attendance in the stacks themselves it seems unlikely that it is a large contingent.

The second largest group, 32% is not using the library at all, but rather occupy the building for the use of the computer stations. The pattern of the use of the library building would change if the computer lab and/or the Starbucks were moved to other facilities.

At 2%, the use of the stacks presents the heart of the problem. I do not have the figures for the percentage of floor space used, but from observation is it easy to say that it could be no less than 75% of a massive six story building. When considering environmental technology costs alone, one might question the amount of storage space devoted to books, periodicals, microform, and other physical media. Unfortunately not all of those items are available electronically, and represent an intellectual legacy that must be maintained for the time being.

It is clear to me why the students choose the library as a study hall. There is a general quiet, and food and drink are permitted. There is not only space, but many degrees of space. Some choose to work in clusters where there is a gentle hum of activity. Some students spread out to inhabit every corner of the building, some choosing to occupy cramped desks at close quarters with walls and stacks, possibly feeling that the claustrophobic nature of that setting helped them focus on their work. This is not the same as a study hall lined with desks. It is the labyrinthine nature of the library which makes it desirable as a place to work. There is a blandness about the setting, and yet a surreal escape from the ordinary which is very conducive to concentration.

However, if one were to simply to replace all of the stacks with porous multicolored barricades, would it make little difference? They are acting as environmental features, not as the reason to be there. They are agents of the special quality, atmosphere, the character of the setting, and have little to do with the setting beyond that.



Figure 3: USF Library North Elevation

5-20, 10-11 pm	0	1	2	3	4	5	Total
Loiter		2	1				3
Relax							0
Other							0
PC Station		36					36
PC Library			1				1
PC Terminal		1					1
PC Group		9					9
PC MM Station		3					3
Study	3	12	4	5		3	27
Study Laptop		17	3	1	2	2	25
Staff		5					5
Staff in Office							0
Stacks						1	1
MM Stacks							0
Micro Stacks			1				1
Spec Collect				na			
SB Line / Drink	na						
SB Study	na						
SB Laptop	na						
	3	85	10	6	2	6	112

Comp Lab	46
Study	27
Study w/ Laptop	25
Stacks	2
Other	12

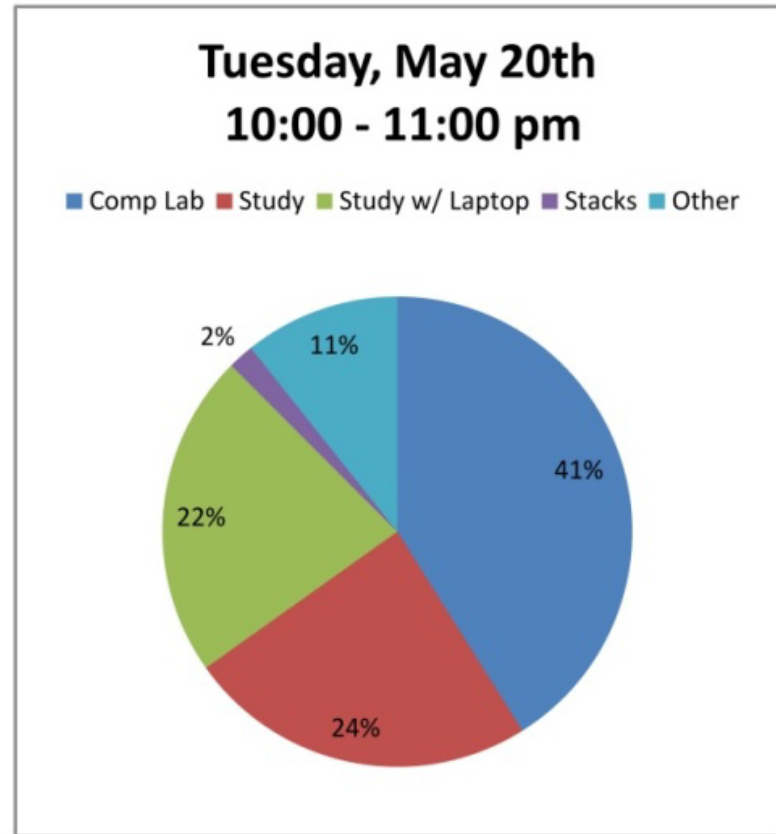


Table 1: Tuesday, May 20th

5-21, 10-11 am	0	1	2	3	4	5	Total
Loiter		3					3
Relax			2			1	3
Other					1		1
PC Station		70					70
PC Library			3			1	4
PC Terminal		5					5
PC Group		5					5
PC MM Station		13					13
Study	2	17	15	8	4	15	61
Study Laptop		15	2	9	5	5	36
Staff		12	2	2	1	3	20
Staff in Office		3					3
Stacks		1	1		1		3
MM Stacks		1					1
Micro Stacks							0
Spec Collect					2		2
SB Line / Drink		13					13
SB Study		7					7
SB Laptop		3					3
	2	168	25	19	14	25	253

Comp Lab	80
Study	68
Study w/ Laptop	39
Stacks	6
Other	60

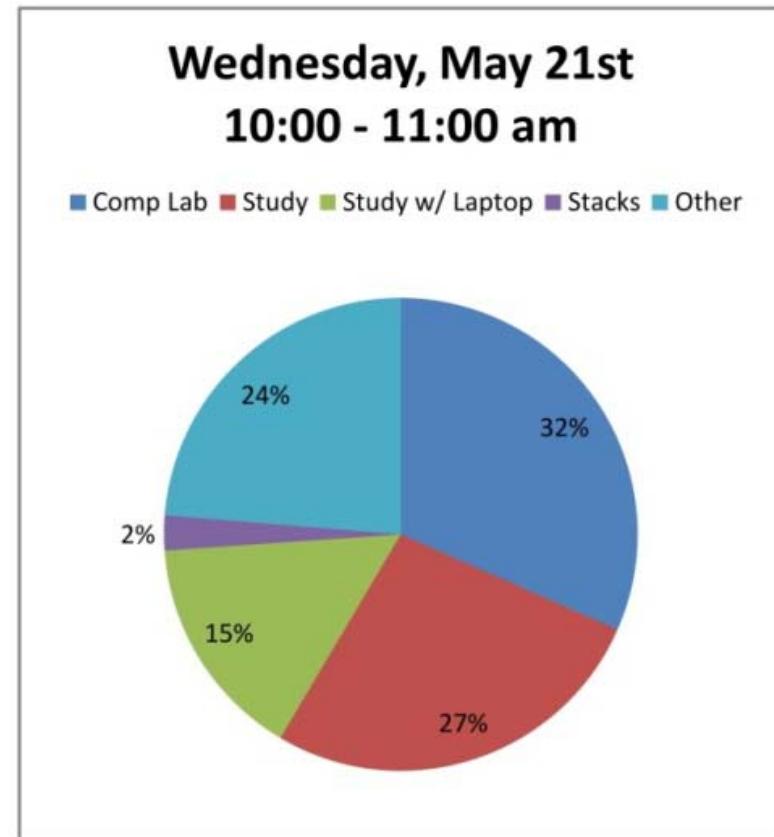


Table 2: Wednesday, May 21st

5-22, 3-4 pm	0	1	2	3	4	5	Total
Loiter							0
Relax			2				2
Other					1	1	2
PC Station		63					63
PC Library			4				4
PC Terminal		6					6
PC Group		9					9
PC MM Station		6					6
Study	2	25	12	17	15	10	81
Study Laptop	9	20	7	10	9	10	65
Staff		5	4	1	1		11
Staff in Office		8					8
Stacks			1	1		1	3
MM Stacks							0
Micro Stacks			1				1
Spec Collect							0
SB Line / Drink		6					6
SB Study		5					5
SB Laptop		3					3
	11	156	31	29	26	22	275

Comp Lab	78
Study	86
Study w/ Laptop	68
Stacks	4
Other	39

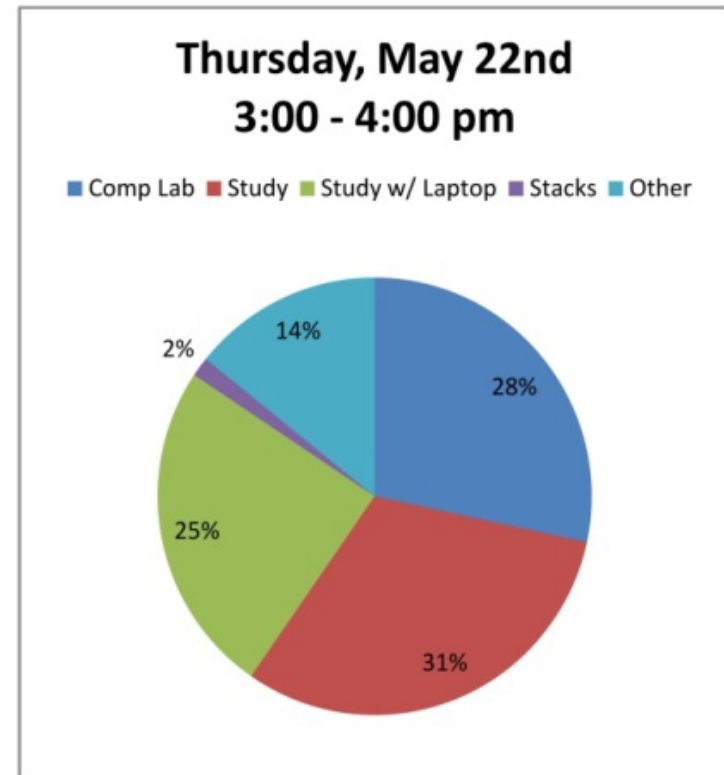


Table 3: Tuesday, May 22nd

5-23, 8-9 am	0	1	2	3	4	5	Total
Loiter		2					2
Relax			4				4
Other							0
PC Station		13					13
PC Library			1				1
PC Terminal							0
PC Group		1					1
PC MM Station		2					2
Study			2	2		1	5
Study Laptop	1	1	1			3	6
Staff		4	2				6
Staff in Office		3					3
Stacks			3				3
MM Stacks							0
Micro Stacks							0
Spec Collect							0
SB Line / Drink		9					9
SB Study							0
SB Laptop							0
	1	35	13	2		4	55

Comp Lab	14
Study	5
Study w/ Laptop	6
Stacks	3
Other	27

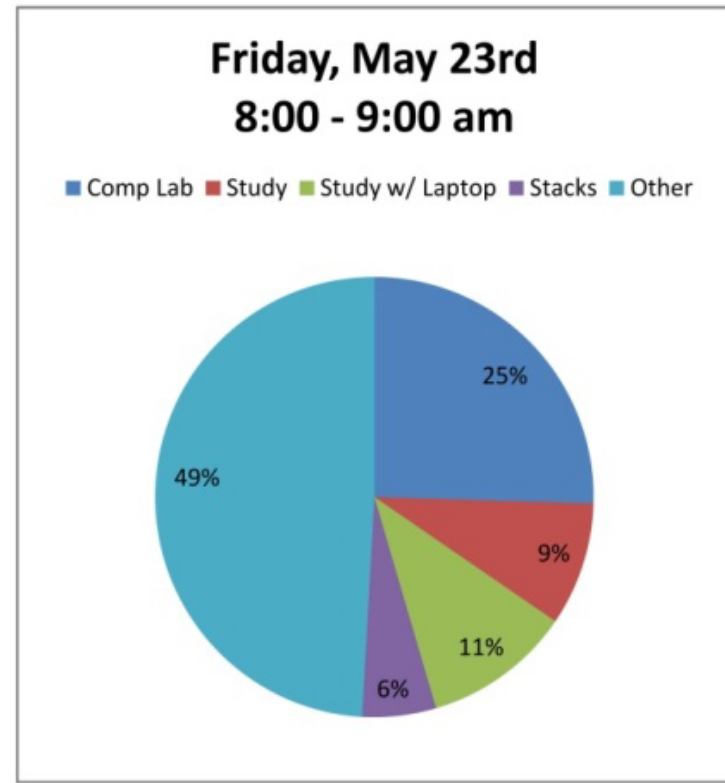
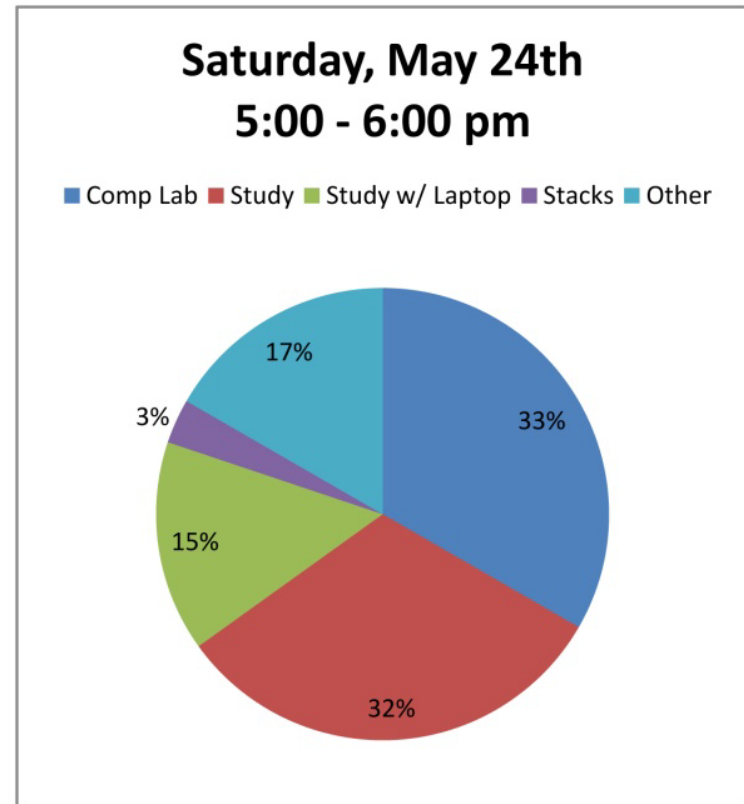


Table 4: Friday, May 23rd

5-24, 5-6 pm	0	1	2	3	4	5	Total
Loiter							0
Relax			1				1
Other							0
PC Station		34					34
PC Library			4			1	5
PC Terminal		3					3
PC Group		5					5
PC MM Station		8					8
Study		12	6	10	6	3	37
Study Laptop		4	1	9	1	4	19
Staff		3					3
Staff in Office		3					3
Stacks				1	1	2	4
MM Stacks							0
Micro Stacks							0
Spec Collect							0
SB Line / Drink		1					1
SB Study		3					3
SB Laptop							0
		76	12	20	8	10	126

Comp Lab	42
Study	40
Study w/ Laptop	19
Stacks	4
Other	21

Table 5: Saturday, May 24th

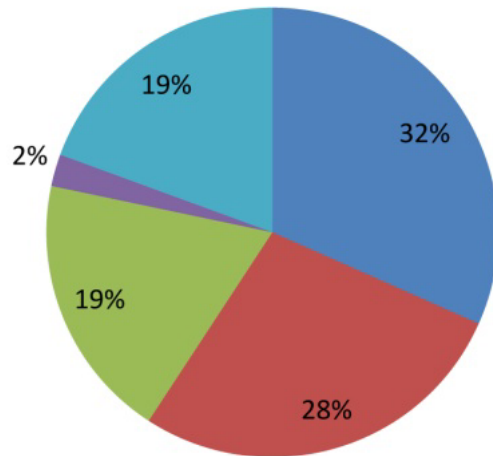


Total	821
Comp Lab	260
Study	226
Study w/ Laptop	157
Stacks	19
Other	159

Averages	164.2
Comp Lab	52
Study	45.2
Study w/ Laptop	31.4
Stacks	3.8
Other	31.8

Total Users

- Comp Lab ■ Study
- Study w/ Laptop ■ Stacks
- Other



Average Users

- Comp Lab ■ Study
- Study w/ Laptop ■ Stacks
- Other

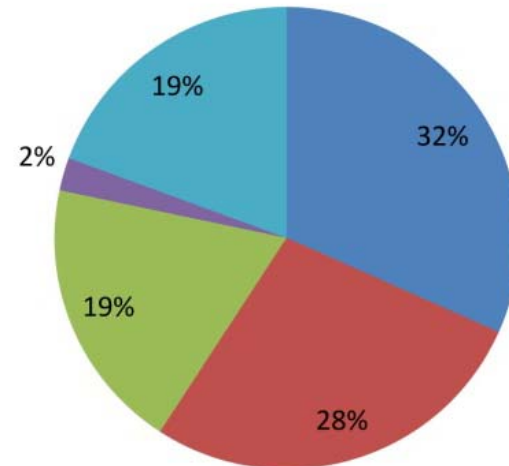


Table 6: Total & Average Users

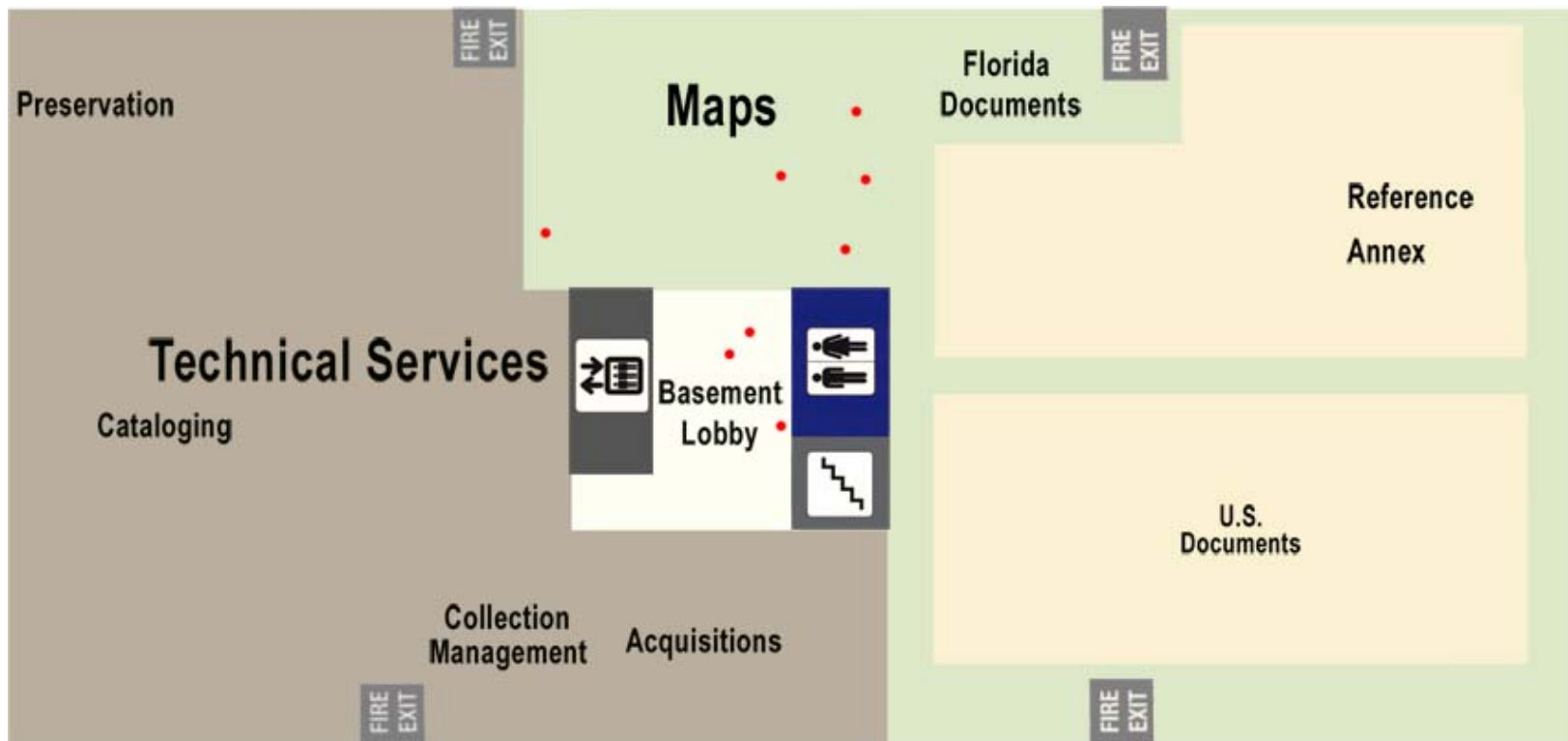


Figure 4: Activity Pattern, Basement – Red dots indicate activity.

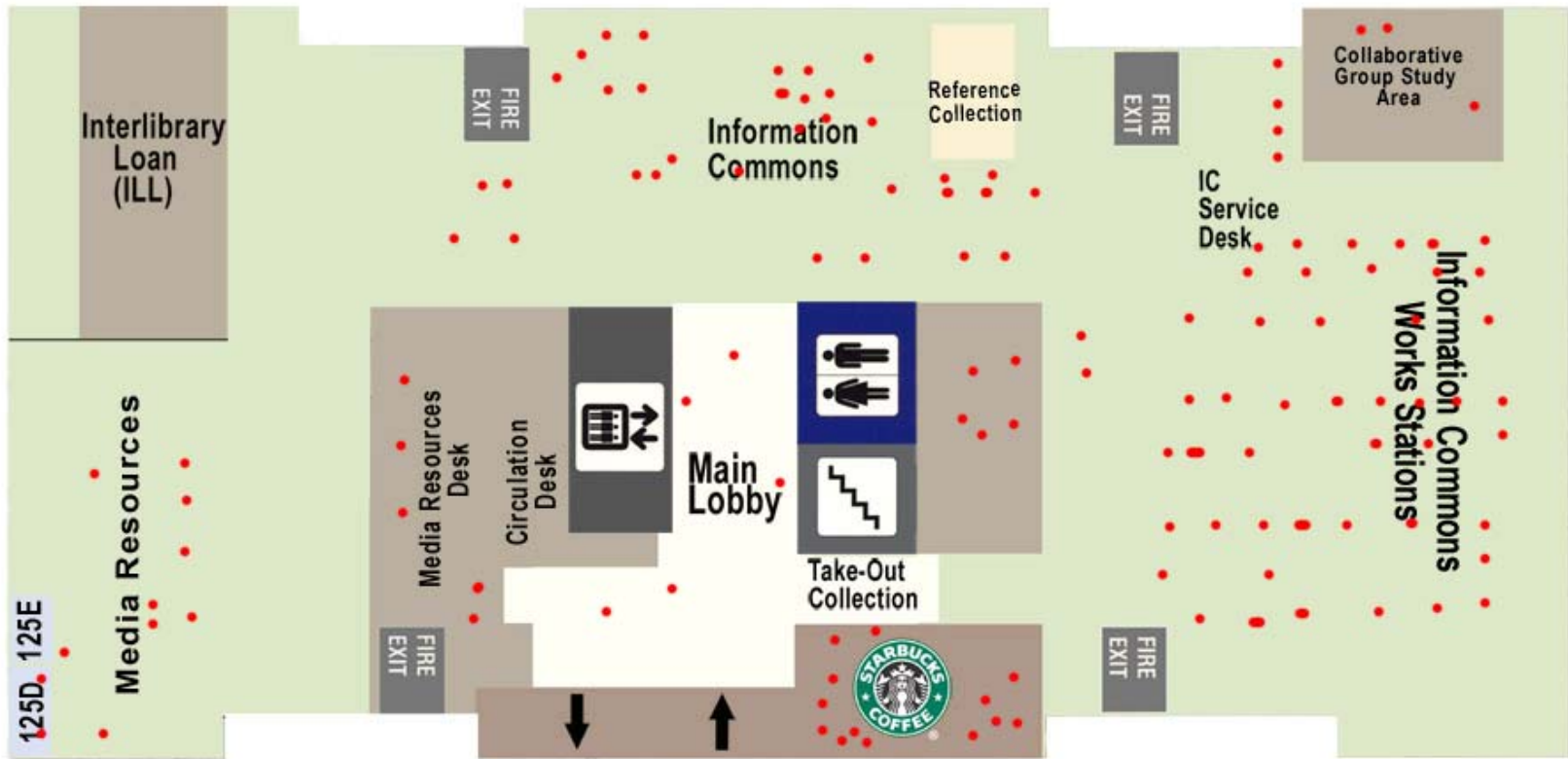


Figure 5: Activity Pattern, 1st Floor

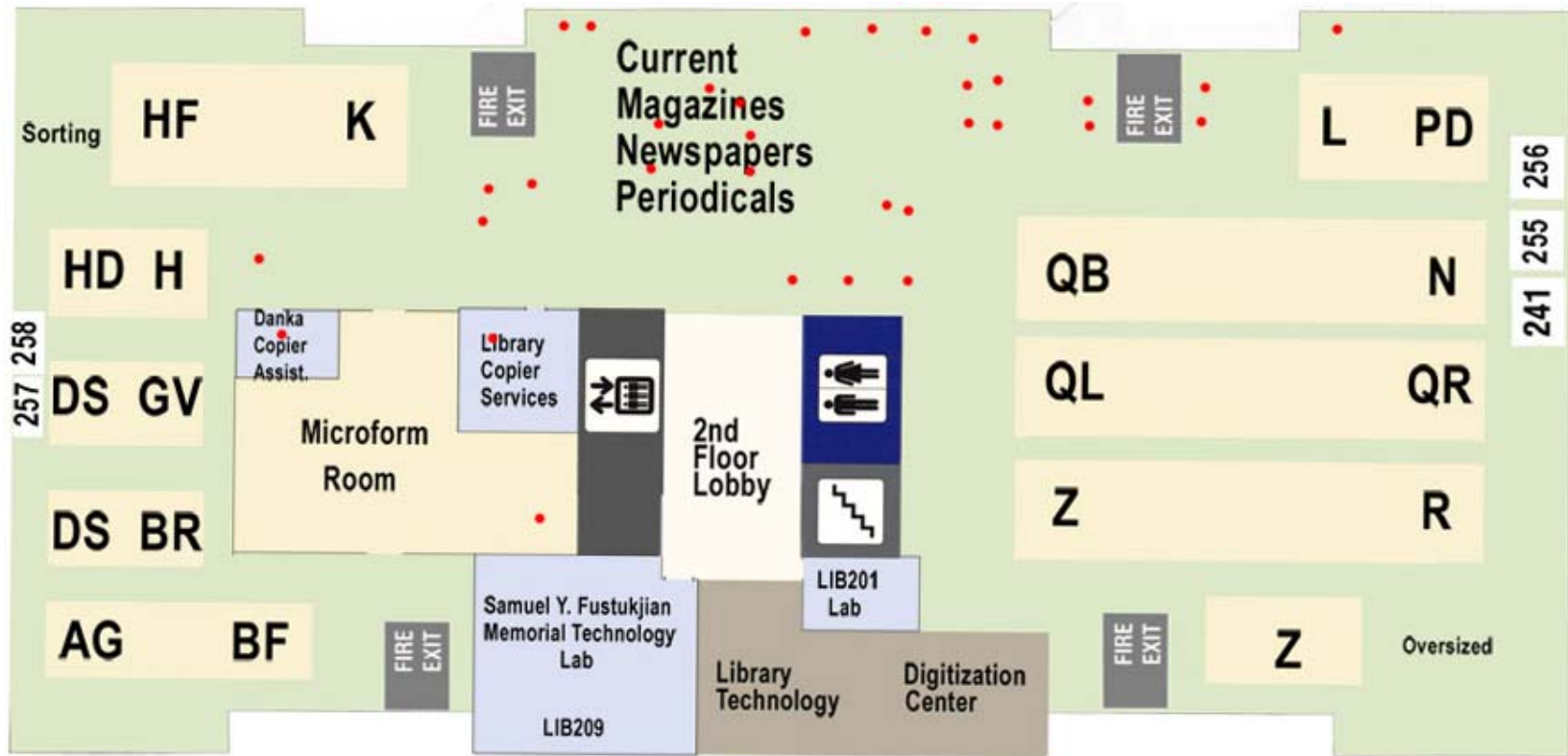


Figure 6: Activity Pattern, 2nd Floor

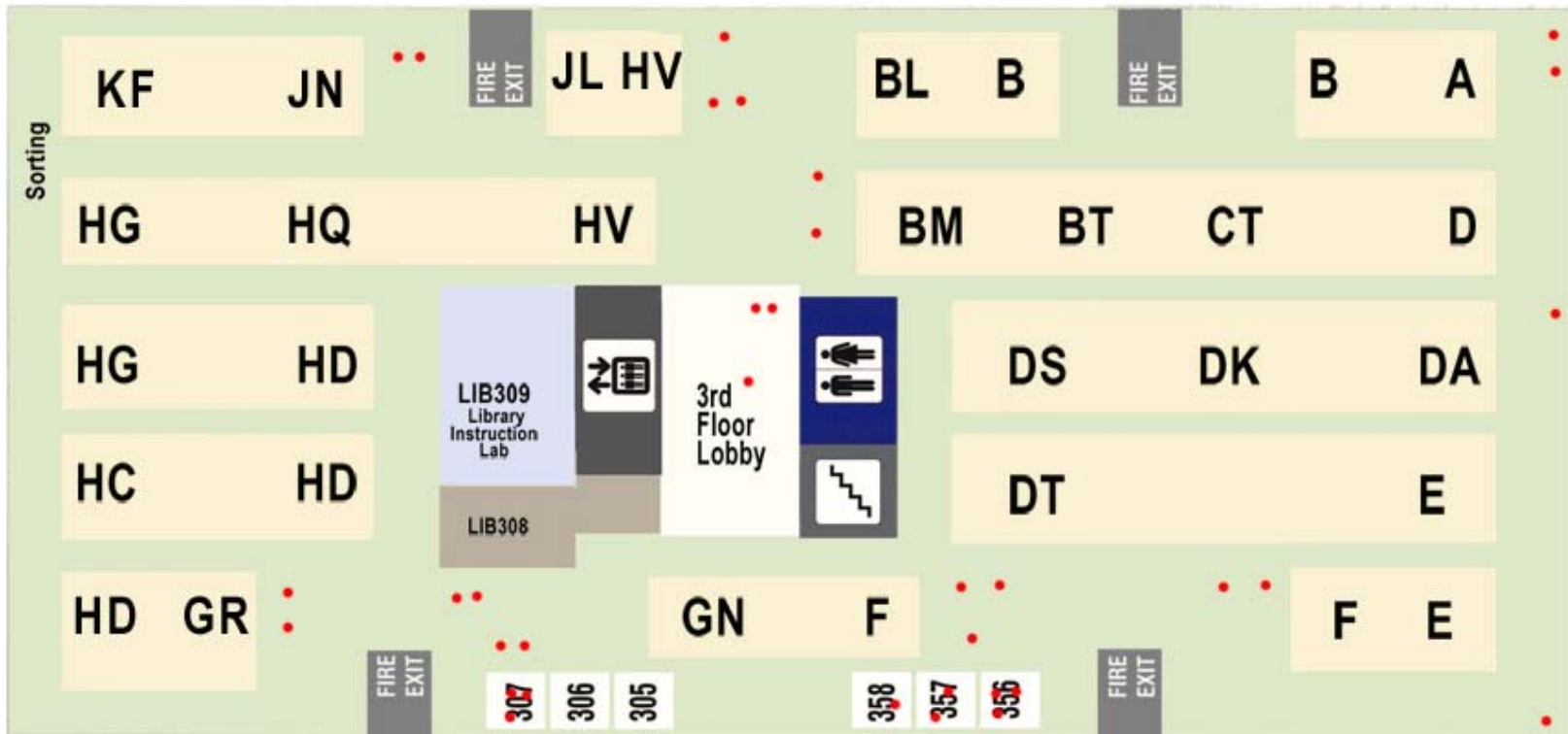


Figure 7: Activity Pattern, 3rd Floor

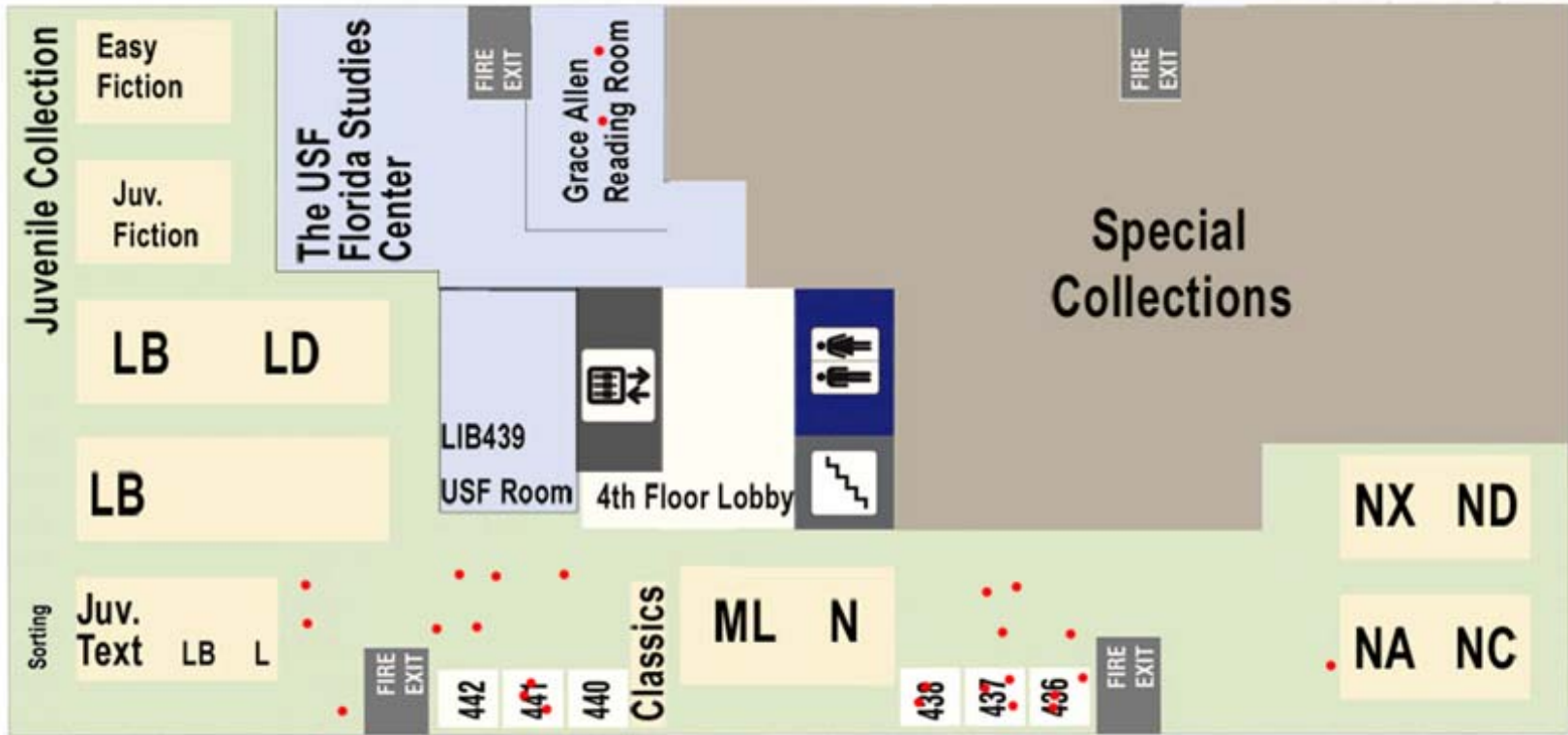


Figure 8: Activity Pattern, 4th Floor

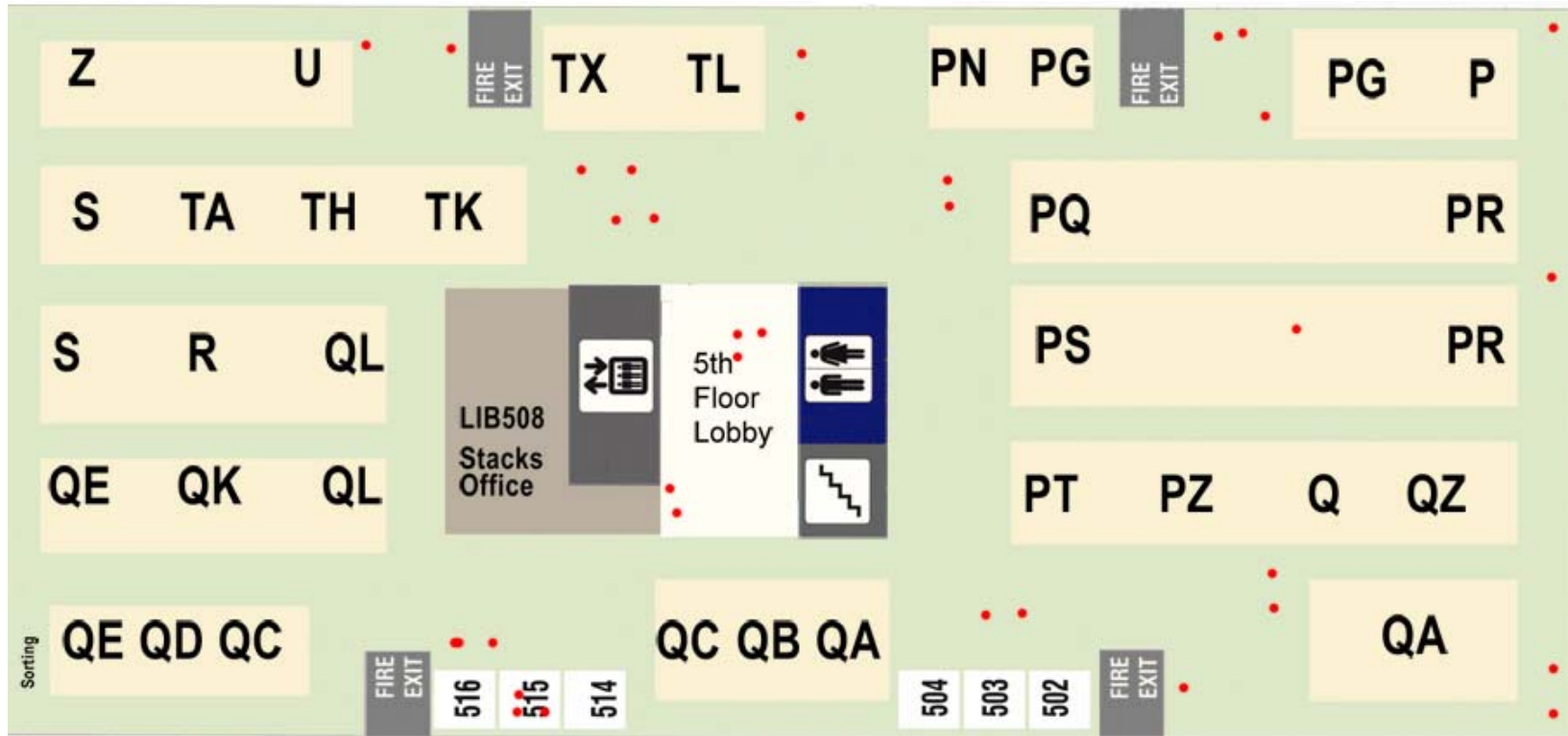


Figure 9: Activity Pattern, 5th Floor

CASE STUDY 2 - Four Hillsborough County Public Libraries

The purpose of this study was to discover, at a glance, the most prominent traits of several Hillsborough county public libraries on the same day within the same relative time period. I began at 11 am, one hour after the libraries opened.

First, I looked at the libraries' location relative to major highways or intersections and other public features. The libraries' relationship to their surroundings is as important as the contents within.

Second, I looked at the basic floorplan of each library, taking inventory of its features but only concerning myself with that which was directly accessible to the public. How noise was controlled and how light was brought into the room was of major concern.

Finally, I considered the general feeling and atmosphere of the place, using often intangible and unquantifiable properties from which to generate thoroughly subjective opinions.



Figure 10: Temple Terrace Public Library Exterior

Temple Terrace Public Library

The first library I visited was located a block away from a major intersection (56th street and Busch) near a fire department and an elementary school. I arrived slightly before 11 am. It was very easy to find, in spite of never having been here before.

The building seemed fairly new, with a slight buzz of activity in the large and welcoming covered entryway.

The floorplan was fairly open and clear, with the exception of a large partitioned children's section which occupied about a fourth of the floorspace. The partition was glass from about waist high to six feet, allowing for the feeling of one continuous space but still creating a sound barrier between the children's area and the main space. The stacks were divided into two sections, reference and circulating, each pushed up against the wall away from the main open space in the center. This open space was filled with computers on long desks. A single staff



Figure 11: Temple Terrace Public Library Front Desk

counter occupied one side of the room. There was a single meeting room and a small study room, though both were hard to find and tucked out of the way.

It was busy, but quiet. I did not venture into the children's area, where several seemed to be playing. The partition was doing its job of keeping the noise away. Many users were at the PC terminals and several more on laptops in a work area which stretched the length of the room and separated the PC users from the stacks. Several others were in a very small reading lounge off to one corner of the room.

Many windows offered generous daylighting, but most-if not all, of it was feeding the stacks areas. The centrally located computer hub was as far away from the windows as it could get, and the work area was not much closer. Only the lounge-like reading area was positioned to take advantage of the



Figure 12: Temple Terrace Public Library Stacks

daylight. The rest of it was being used to sun-bleach the book covers.

The library had a pleasant small community feel to it, and seemed to strike a balance between the many factors of activity, noise, and peace. Admittedly, my first impression upon entering was, "This is it?" as I searched for a second room or a stairway to a second floor.



Figure 13: Temple Terrace Public Library Central Area



Figure 14: Jimmie B. Keel Public Library Exterior

Jimmie B. Keel Public Library

I arrived at the second library just past noon. It is located on a highway (Bearss) not far from a major intersection (Dale Mabry). The location had an isolated, “out in the woods” feeling to it. The covered entryway was actually much larger than the previous library, and was thus much less inviting. There was much more activity outside and around the building. The building also seemed new.

The layout was very similar to the Temple Terrace Library, but with the grave exception of having no partitioned children’s area. In other regards they were cut from the same mold. The stacks were pushed up against one wall, though there were twice as many here. The center of the room was given to a generous computer area, though here it was arranged in a circle with a staff counter located in the center. A second staff counter, this one the circulation desk, was off to one side of this area.



Figure 15: Jimmie B. Keel Public Library Stacks

The lighting situation was the same. Generous windows were set to sun-bleach the book covers and all work areas, which were predominantly computer stations, were kept away. A small reading lounge hugged one wall between the stacks and the windows, offering a pleasant view into Florida's natural scrub forest. The opposite wall was host to a series of meeting and study rooms of similar size but different layout. Most of these were in use.

At the opposite end of the building from these was another computer lab, which was just as busy as the central one. In fact, just like with the Temple Terrace Library, the majority of adult activity was centered in the two computer areas.

The building was dominated, however, by the aforementioned lack of a partitioned children's area. There were many children in the building, and they made their presence abundantly clear by running, playing, and screaming with no boundaries to their



Figure 16: Jimmie B. Keel Public Library Central Area

rampage. Even the circular barricade of computer desks did not deter their almost brownian motion throughout the building. It was out of control.

The building felt like a hybrid between a library and a playground. Though light computer use would be possible, I could not imagine trying to focus on anything serious or requiring any concentration in this library. Even if the children were removed, the space would still feel dysfunctional. The layout which was similar to the Temple Terrace Library did not work as well here simply because the room was slightly larger. It was just large enough so that the open floorplan lost its cohesion and became a sprawling, nebulous space.



Figure 17: John F Germany Public Library Exterior

John F Germany (Downtown Tampa) Public Library

The largest branch in the Hillsborough County library system is located in downtown Tampa. It's one of the first things you encounter when entering the area from the main interstate 275 exit, located adjacent to a parking garage (expensive) and the performing arts center. These buildings along with several others serve, in a sense, as Downtown Tampa's Gateway.

The building is decades old. It can be described as "ugly, but with personality." It doesn't have a "library look" but the look can be associated with a library.

The interior seems chaotic. A desk is front and center, and everything else seems scattered. There are actually two libraries here, each with a main entrance with a front desk and a narrow corridor connecting them back to back. One central stair in the front building connects the two floors. There seems to be no way to get to the 2nd floor of the back building. A



Figure 18: John F Germany Public Library First Floor Central

strange artifact exists between the two buildings, a domed shaped structure with flanking doors, with no apparent function. The doors leading to the courtyard where this structure sits are blocked.

As usual, the computers are centered, away from the daylighting which feeds the stacks areas, which have been pushed to the perimeter.

Computer areas are scattered mostly on the second floor of the front building. The second floor of the front building seems more cozy and intimate. Voids break up the space.

The interior of both buildings is very quiet. There is an empty feeling; drained, lifeless. The two buildings seemed to have fewer people inside than the much smaller local libraries. The separation contributed to the lack of energy.



Figure 19: John F Germany Public Library First Floor Computer Use

The back building seems to be the children's / young adults / "embarrassing" fiction / video section. It has a bookstore, but no clear meeting rooms or study rooms, or any other 'community' or 'civic' type functions, but most of the building was inaccessible.



Figure 20: John F Germany Public Library Second Floor Reading Area



Figure 21: Port Tampa City Library Exterior

Port Tampa City Public Library

This library is located near the southern tip of the Tampa peninsula, after a long drive down Westshore Boulevard. It is a low density urban area with apartments and other businesses nearby on its side of the street, and a ditch and strip of wilderness on the opposite side.

The building, a classically styled marble structure that was built as a bank, is extremely small and intimate. When you're inside it feels like you're in on a secret or an exclusive club. It was the only time a librarian greeted me when I came inside.

The collection of books is small; almost negligible. Still, it shared similarities with the first two libraries I visited, with the desk up front, a clear space in the center, and the stacks pushed to the back. The children's section was in one corner, completely open though no children were present, with



Figure 22: Port Tampa City Library Interior

computers occupying the central space, but also lining the walls. Every inch of the very small enclosure is maximized to fit in as much as possible.

The entire second floor is meeting rooms and study rooms, with exhibits here and there explaining some historical facts. There was a notable abundance of model boats. As I sat downstairs at the single table, the librarian asked me if I'd rather have one of the private study rooms. I declined happily.

The main library room was very quiet, but did not have the same empty feeling as the John F Germany Library. There was a restful tranquility about it; very peaceful.

Very large windows lined the halls and fed the entire space with daylight, not just the stacks. The size of the windows combined with the very tall ceiling created a very well lit space.



Figure 23: Port Tampa City Library Exterior

The room was slightly reminiscent of the New York City Public Library building, but on a much, much smaller scale.

For a library of its size and with such a small offering, it was remarkably busy. Several patrons came in and checked out material as I sat for about a half an hour observing.

It is worth noting that this is the library that my Design 3 project was based on – in that studio we designed an addition to this building. Thus, I was much more familiar with it and have a much greater attachment to it than the other libraries.

Conclusions

There is a chronic problem between the layout of the buildings and the daylighting. This light is optimal for reading, but the space where it is most abundant, the perimeter of the building, is always occupied by stacks. Some libraries attempt to amend this by placing small lounge areas in the perimeters between the windows and the stacks, but these lounges are inappropriate for work. The computer areas, which are now the dominant feature of every library, are centralized both to avoid screen glare from the daylight and because it is where most of the traffic will be. Though daylight is good for reading, it is bad for the books themselves as the ultraviolet rays deteriorate the book spines.

A separate children's area is essential for the operation of the Library, not merely to provide the children with fun things to read, but to simply get them away from the main library space and the peace and quiet which is essential to concentration. The Temple Terrace Library did this best with the glass partition, so that the children may have their place and their various adult supervisors can keep watch over them at a glance from wherever they are conducting their business. This is in opposition to the John F Germany library, where the children's section is in an entirely different building and would require the adult either be in there with them, or they be left totally unobserved.

Computers are forcing the books into the periphery. They take up far more space than the books do, require far more elaborate facilities and see much, much more traffic than the book areas. Two of the libraries had only one desk for all of the customer/guest needs. In one case this was a long multipurpose desk with various people working there with

various functions. In another case there was only one desk and one person, but the library itself was so small that no more was possible. In one case, two desks were provided but with different functions, and adjacent to one another. Finally, two desks at opposite ends of the library were provided with apparently identical functions, each designed to serve the need for the customers/guests in that part of the library. Thus, a wide range of setups for user/staff interface is practiced, with no clear arrangement being preferred.



Figure 24: Central Brevard Public Library Exterior

CASE STUDY 2 ADDENDUM - Central Brevard Public Library

A fifth library was visited in order to compliment this case study by including a facility that was part of a different county library system, and was of a design and layout which contrasted greatly with the four libraries of the study. The Central Brevard Public Library was chosen because it met all of these criteria, but is also a library I am intimately familiar with, having taken advantage of a wide range of its services for more than a decade, myself. It is kept as an addendum and not edited into the original case study because the size of the library and the amount of information to convey on it is nearly as great as all of the four Hillsborough libraries combined.

Location

It is located on Forrest Avenue, which branches off of Highway US 1 and overlooks the Indian River in Cocoa , Florida. It is four blocks north of the Cocoa Village historic district. The village is a fairly dense pedestrian area, but the SR520 highway limits pedestrian traffic to this area. Aside from the gap, it is a short distance walking from the village. Drivers on US1 or SR520 would have to be aware of its location, as you cannot simply stumble upon it nor can you see it from the highway. If known, it is very easy to find for drivers. It is not located adjacent to any other civic or public institution, with the possible exception of a nearby Masonic Lodge and Christ Scientists building.

The Building

It is oriented towards the river, with its back to the street. However, the parking is between the building and the river, so it is really oriented towards the parking lot with the river beyond. The building itself is massive, much larger than any others in the area, but is broken up into smaller wings to keep it from being monolithic.

A covered entryway is the most prominent aspect of the 'front' of the building, which broadens and wraps around the elevation to form a porch-like area with some seating and shade. Several people were making use of this space to loiter and others to relax. Some of these people were possibly homeless.



Figure 25: Central Brevard Public Library Reference Area

Floorplan

The building is large, and the layout can be confusing for those not familiar with it. It is in some respects divided up into many smaller libraries, as each major area has its own front desk and self contained facilities.

One chamber in particular stood out as the primary space. It varied dramatically in appearance and atmosphere from one end to the other.

At the start, nearer to the front entrance, the ceiling is low and lights dim (comparatively) with a tighter, intimate feel to it, though it lacked any partitioning. This is where a large reference desk (the primary one of the library) sat along with most of the reference materials. A small fishbowl-like computer lab sat adjacent with a mere eight PCs inside. Aside from that lab the computer presence was minimal; several antique terminals which had been present since the building's opening



Figure 26: Central Brevard Public Library Reading Room

in the 80s sat with burned in CRTs while a few more contemporary models accompanied them with LCD displays.

The middle section of the room is where the main stacks of the library were held. Here the ceiling rises to a full second story – or maybe even three – bringing in a great deal of light from above. The entire east wall was glass, bringing in not only additional light but also a view of the river beyond the parking lot. The stacks themselves were tall and close together, with a light frame holding tubes of florescent lighting directly above the aisles, creating a sense of being closed in while you are among them, even though the ceiling looms another twenty feet above.

At the opposite end an open space offered both task-oriented seating areas and a more relaxed lounge-like seating area. The ceiling here is lower than in the center but still much higher than the start. In this space a pair of men sat having a



Figure 27: Central Brevard Public Library Garden

conversation at higher than normal conversation volume (it was like they wanted the whole library to hear their political commentary) and no one made any effort to quiet them, even though several staff people were nearby reshelving books. The entire north wall is glass, offering a view into an isolated and vacant garden area, adorned with large abstract sculptures, a fountain, and seating areas and walkways, though there is no discernable way to actually enter this garden.



Figure 28: Central Brevard Public Library Periodicals

Additional areas are as follows...

A bound periodicals room also was the home to three group study rooms, each of which were occupied. One seemed to have a tutor and a pupil, another a man working alone (with a compass and t-square no less) and another with a group of potentially high school students, who were making a bit of a racket. A small but still impressive law library was adjoined to this area.

The large and thoroughly decorated children's area and adjoined young adults section seemed sufficiently self contained with its own staffed desk area.

The audio/video multimedia area had a collection of outdated machines by which the material could be viewed, but also had a large and fairly current collection of DVDs.



Figure 29: Central Brevard Public Library Special Needs Collection

A library for the blind and physically handicapped was walled off though glass partitions and allowed a few inside. It seemed quite extensive and well staffed.

Two large meeting rooms were available for public use. They could potentially hold 100 (seated) to 200 (standing) occupants. One was in use at the time of my visit, with the room so full people were standing outside the open doors looking in.

A small second and third floor contained additional archives but not for public browsing. They were not off limits to the public, but visiting these areas required an escort or a schedule appointment, or both. Scattered throughout the library were enclosed glass cases showing off the work of a local model building club, with miniature planes, trains, automobiles, and starships .



Figure 30: Central Brevard Public Library Current Periodicals

In a hallway connecting the front desk area through the young adults section and finally terminating at the multimedia area was an art gallery, with various framed works of all subject matter and medium, many of which were for sale.

Addendum Conclusions

The Central Brevard Library does not succumb to many of the problems that the Hillsborough Libraries create for themselves. However, it does bring up several new ones. The Hillsborough libraries tend to have simple, straightforward, open layouts, where the Brevard Library is sprawling and can be confusing to navigate. The dividing of the building into several small library units is reminiscent of the John F Germany Library in downtown Tampa, but the Brevard library takes it much farther. On the other hand, this contributes to the maze-like layout, as one can easily lose orientation when there are so many 'front desks'. Light is handled much differently in the Brevard library, with spaces flooded with generous light that feed work areas and relaxed reading areas, though most of the building is left in cave-like darkness. The children's section is a world unto itself in the Brevard library, and though this effectively keeps the little ones out of the hair of those doing serious business, it is impossible for the parents of the children to keep watch unless they are in the children's area with them. Unlike the Hillsborough Libraries which have placed a focus on computer presence and access, it is an afterthought in the Brevard Central library. A small computer section exists, but it is comparatively insignificant to the computer labs of the Hillsborough libraries and pushed out of the way so that it can be difficult to find. From my own knowledge of the building I can vouch for its unwillingness to adapt and change. The only thing that has altered in the past twenty years is the position of some of the pink chair-like objects throughout the building.

CASE STUDY 3 - Four Major Attempts

This case study looks at four major urban libraries and their attempts to break the mold. All were completed during the first decade of the 21st century. Each represents different approaches, different levels of innovation, and different successes and failures in different areas. They are listed in chronological order by completion date. This case study will not be looking at the architecture or even the layout of these buildings, but rather focusing on the ideology of the innovations and its relationship to the traditional library.



Figure 31: Sendai Mediatheque Exterior

Sendai Mediatheque (2000)

The Mediatheque in Sendai, Japan is the greatest disappointment because it falls so short of its original conception. The aim was to create the next evolution of library; the creators so firm in this assertion that they proposed it assume the fictitious name Mediatheque in place of Library to make it clear to all that this was something new. (Witte) The original design involved workshop-hubs that were to be centers of creation and teaching, that connected a series of distinct functions revolving around the various mediums of creation; books and writing, art and graphic design, video and cinema, music and composition. In the end, political concerns and design by committee stifled the project, and we are left with what I am about to describe.

The Mediatheque owes its identity to the division between floors. Each area is comprised of one or more floors, and bears little relationship to the others. The ground floor need not be



Figure 32: Sendai Mediatheque Lobby

the ground floor of a library at all – there is a reception area, a large performance area, a bookstore gift shop, and a café. Above it is a library, comprising two floors, one of which is split with a mezzanine. Above that is an art gallery; if it were the second floor, or even the only other floor of the building, it would not have made a difference. All relationship with what is above and below is cast away, presenting a pure art gallery that could have been in any building, anywhere. Finally, the top floor is dedicated to multimedia of an audio/video nature. An expansive library of stored media is available, along with more than adequate facilities to view this media.

The Sendai Mediatheque is a series of fragments that occupy the same glass box. It is an informal performance hall; this area performs its function well. It is a library. Again, this function is performed well. It is an art gallery, and functions as properly to that end as any art gallery should. Finally it is a multimedia access venue, organized, up to date, and with all of



Figure 33: Sendai Mediatheque Stacks



Figure 34: Sendai Mediatheque Elevator

the required technology and quantity of that technology to serve that function perfectly. If this had been the design goal, then the Mediatheque would have been a success.

But, as mentioned before, the disappointment comes in how far short it fell. There is no relationship between the functions. The concept of the workshop, to bring the aspect creation into the library and have these workshops serve as hubs, central spheres of inspiration and energy from which all other parts of the institution derive their ideology, is completely absent.

This building serves as a great warning to how easy it is to succumb to hesitations and cut the concept short, one line at a time, until it falls apart completely. Because of its failures, more can be learned from the Mediatheque than any of the other examples. One cannot simply take the different fields of creative expression and place them in the same building and



Figure 35: Sendai Mediatheque Overlooking Street

expect to create some new paradigm of library evolution. Proximity does not breed synergy.

I feel that the other danger that befell the Mediatheque is the crime of architecture for architecture's sake. The creation of the building itself as an object of glass and steel and the development of the spirit of the Mediatheque were divorced processes. It has been said that the building could have easily become an office building. No other example need be given, as the office building is the perfect expression of homogeneity and the generic. It is a blank template. Though this was seen as an advantage by those who worked out the other half of the design; what to put in this generic box, the nail in the coffin was the lack of an 'architect' – or master builder – on their side. If a strong leader with a strong vision and convictions had been present, the Mediatheque could have possibly rendered the Icomde unnecessary.



Figure 36: Salt Lake City Library Concourse

Salt Lake City Public Library (2003)

The committee that designed the program for the Salt Lake City Public Library wanted more than just a library, they wanted a public city-center that was also a retail, commercial, and political center. The result is a bloated institution which combines the features of the traditional library with the layout and contents of a shopping mall, a landscape that creates a vast public plaza, and a physical connection to the city hall building. It appears as if no compromises were made, and no expense spared. (Graham)

This is indeed a powerful attempt at making a new kind of library, but rather than changing what a library is, the tactic is to throw as many other things into the mix as possible, to create the ultimate "Library And."



Figure 37: Salt Lake City Library Exterior



Figure 38: Salt Lake City Library View to Plaza

It spirals up into the sky, with a touted three-sixty degree view of the city. Retail spaces occupy bays not unlike any typical shopping mall. Even the library facilities mimic this arrangement. The young adults section becomes a 'cantina' though it is very unlikely that alcoholic beverages are served. The children's section becomes more amusement park than library, though it also bears resemblance to a daycare. The bottom floor is dubbed a 'browsing library' and resembles a current big-box bookstore, complete with a café and what has been described as a staff who are more trained to be conversationalists than librarians. A rooftop garden completes the eclectic assortment of environments offered.

In some ways this mirrors the way distinct technologies have melded and merged into composite devices. Just as the personal computer combined a series of distinct tasks decades ago, and mobile pocket devices are similarly merging today, the Salt Lake City is attempting the idea that if the Library is



Figure 39: Salt Lake City Library View into Concourse

obsolete on its own, take the technological model and simply add as many other functions to it as possible until it offers enough things to draw a large enough crowd. In cases where this combined similar technologies and functions, for instance, a printer/scanner/fax machine, it becomes very reasonable. In other cases, such as the popular combination of the cell phone with the camera, it makes less sense. A cell phone does not need a camera nor does it function better with one; and similarly being attached to a cell phone certainly guarantees a shoddy camera, but it offers an additional selling point, and a convenience to those unconcerned with quality.

So, in which category does the Salt Lake City Library fall? It seems to be a little of both. Some functions naturally complement one another, the merging of public, civic, and political institutions into one, whereas others seem tacked on and slightly superfluous; namely the addition of retail to the mix. I do not believe there is anything wrong with adding retail

space to a library, indeed many common 20th century libraries include gift shops, cafes, and used book stores, but it solves nothing. It is an addition for the sake of having an additional “selling point,” that does nothing to face the true issues. It gets people to the library who would not normally go; but then anything else could be substituted for the library and the visit there would be the same.

This library utilizes beautiful architecture, grand spaces, a plethora of appealing functions, and indeed a loosening of library tradition by conforming it to a different organizational model, but if all of the additives are removed from the mix, what remains is still a simple library, unchanged in conception, and sharing the fate of all libraries everywhere to fade into obscurity as print media is transferred online and to other electronic sources that do not require a building to store them.

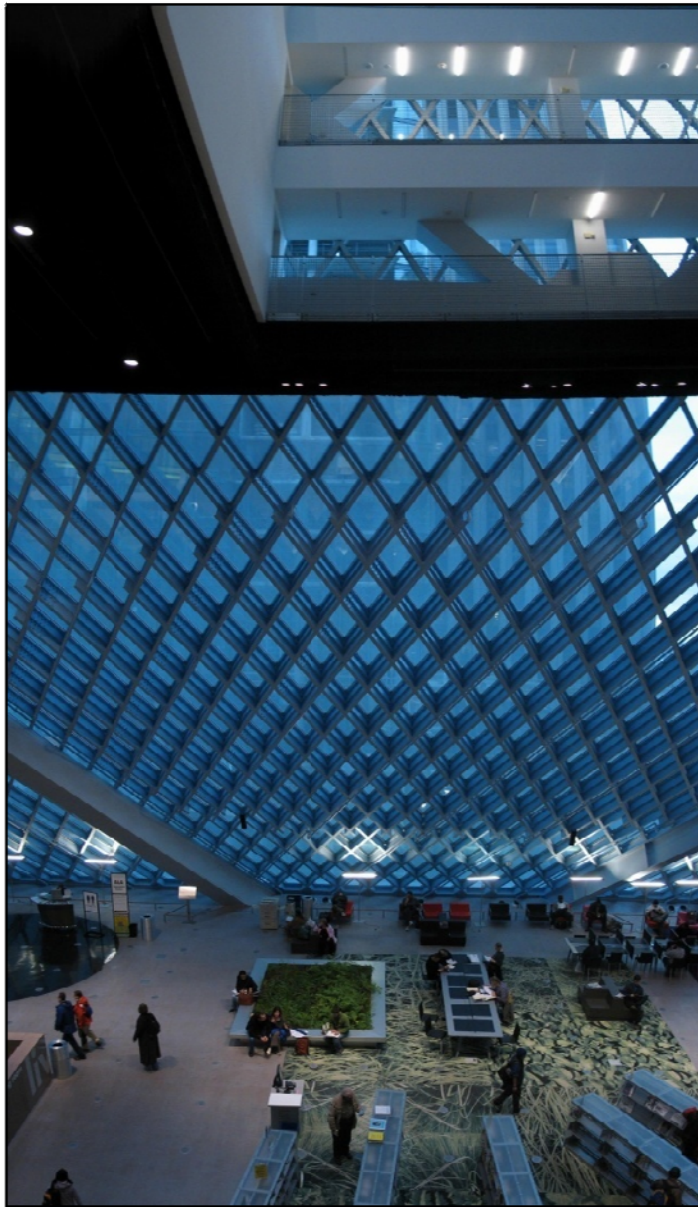


Figure 40: Seattle Library Fiction Area

Seattle Library (2004)

When it was completed, it was hailed as the first library of the 21st century. (Marshall) On closer inspection, it is revealed that this library makes no innovations or paradigm shifts whatsoever. If by 21st century they mean only architectural vocabulary, then perhaps the term can be accepted, for it physically resembles no library built in any other time, ever. However, as stated already this study is not concerned with architecture, it is concerned with library design.

In spite of its insistence that it is something novel, this library offers very little that is unique, though it does offer a great deal in unique abundance. The idea seems to be, if you can't do something new, do something current, very much. The stacks themselves seem to be almost an afterthought compared to the lavish 'living-room-like' lounges and gadget-filled computer areas, with various gimmicks such as a fiction

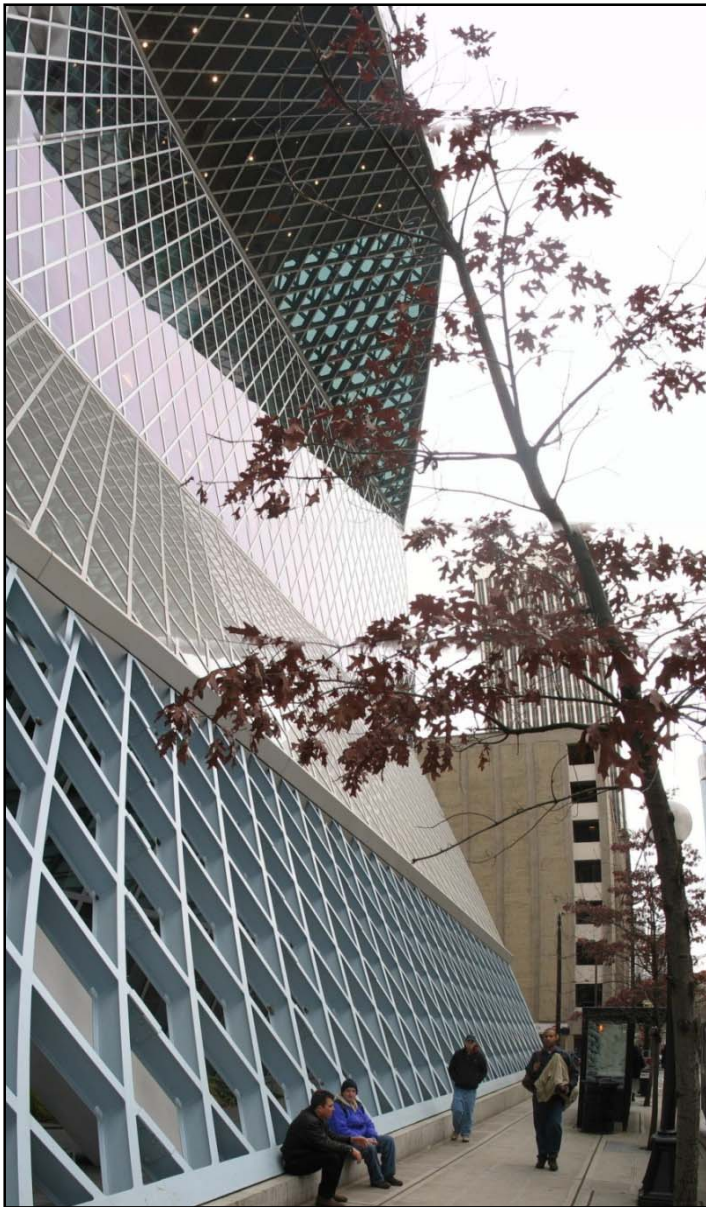


Figure 41: Seattle Library Exterior

section laid out like pickup sticks and a nonfiction section laid out in a spiral, possibly to distract the users into believing that they are experiencing something new. The benefit of playing it so close to the cuff is that there is truly little else to criticize about it. It functions as a current library and offers all of the equipment and spaces one would expect from a current library. It is also reportedly very successful, and in spite of the unparalleled quantity of personal computers at the public's disposal both a waiting list and a time limit are required for these machines. Being a current library with no true change to the way things are done, it is difficult to evaluate from a simply ideological perspective, as there are no unique nor risky ventures to analyze. It does provide an excellent 'control' subject. It is what one can observe as the standard course for the current library model to take if no innovations or ideological changes are attempted. It can be treated as a benchmark against which new ideas can be measured. From that perspective, it is a very useful example.



Figure 42: Seattle Library Front Lobby



Figure 43: Chicago State University Library ROVER

Chicago State University Library (2006)

In this radical example, stacks are replaced with storage bins arranged in tight shelves where no browsers are allowed. Every book, CD, and DVD in the school's facility is tagged with a radio-frequency ID chip. Robots; named ROVER, (Retrieval Online Via Electronic Robot), tall, forklift-style machines that run on tracks stow the materials in these bins contained in a three-story-high storage facility. It takes about 35 seconds to get your book; one of 850,000 books in the robot's storage, though there are an additional 250,000 books still in traditional stacks with some crossover. (Biba) (Graham)

If the only advantage The Internet had over the library was the way information was accessed, then the Chicago State University Library (CSUL) would have just put itself at par. Assume for a moment that the entire library followed the new system; the 250,000 books still in traditional stacks did not



Figure 44: Chicago State University Library Interior Views

exist, and the entire circulating collection was contained in storage bins and accessed by ROVER. At the user's terminal, which does not even have to be in the library, the user conducts his or her search using an interface that is, fundamentally speaking, The Internet. The user arrives at a selection using means identical to those which may be used in an internet search, and then the user goes to get the book, not by searching again in a labyrinthine set of stacks, but by going to the dispenser and having the book 'hand' delivered to them.

However, in spite of appearances at being at the cutting edge, the opposite is possibly true. What has been described in truth bears less resemblance to the way we access the information online and much more to how it is done in the libraries of last century – for example the Humanities Library in New York City. A request for a book is made. How the request is made is much different, but it is a request all the same. Someone – some other person that is definitely not the person making the



Figure 45: Chicago State University Library Traditional Stacks

request – goes to where the books are stored, in an area where the request-maker definitely cannot go, and if they did go, they would be unable to navigate it – and handily acquires the book and brings it to the requestor. The comparison becomes even more amusing when the existence of the dumbwaiter in the Humanities library is added to the mix, and thus the way the requester obtains the book becomes identical to the way it is obtained in the CSUL from the point of view of the requester.

The robot librarian, ROVER, does not ask for time off, but it can break down, and will break down in a power outage. It does not have to be given a paycheck, but it does require electricity for its motors and computers and radio frequency receptors. It is also only as smart as the one making a request. If the requester is looking for a book on the gravitational fields of quasars but can only find a general lexicon of astronomical phenomenon in the data search, ROVER is unable to tell the requester that the exact topic they need was actually covered



Figure 46: Chicago State University Library Exterior



Figure 47: Chicago State University Library Front Lobby

by the March issue of *Astronomy* in 2004. (This is not the case – it is simply an example.) Furthermore, if the requester actually went into the stacks themselves to find the book, it is very likely that right next to the lexicon of astronomy could be a book on gravitational fields.

The ability to browse the contents of the Library is one of the key advantages it still possesses over online searches. This is lost in the CSUL. The advantages gained are, from the user's perspective, no different from returning to a model abandoned decades ago. Of course, there are true advantages; the storage bins do not require the same environmental technology (lighting) as traditional stacks, and thus the energy costs of the robot are offset by the far greater energy savings. Less floor space is needed, saving on construction material. Indeed, no human other than technicians ever need lay eyes on the world of ROVER, so all creature comforts may be abandoned in favor of a purely mechanical environment.

ROVER does the job of dozens of library staff-people who would need to be paid and have their needs catered to. From the management perspective, it is a dream come true.

However, even this is not the case – though information on this topic conflicts, some resources report that it requires an army of staff-people to keep ROVER user-friendly. The bins which contain the books do not contain a single book, nor can ROVER sort through them. These bins, which can come to the loading bay as many as twice a minute, contain four stacks worth of books each, which must be sorted through by humans – now servants to the robot it seems – before it can finally reach the requestor.

The CSUL is the only library in this study which does not take the “Library And” approach, but instead focusing on changing the way the library actually works. As dramatic a change as it is, it simply mimics an outdated system and replaces the human component with a machine, and trades one set of advantages and disadvantages for another set. It is also an important reminder that a problem will not be solved by simply throwing advanced technology at it; one must be certain that more problems are not being created than solved.

Conclusions

Sendai Mediatheque is an example of great aspirations that fall short of the original conception. It illustrates a situation where compatible elements that should be integrated are kept separate from one another, in spite of being under one roof. It is a facility that attempted to redefine library, and went as far as to invent a new name for itself, but instead falls short of this plan and becomes simply a library with several other features adjacent. The Salt Lake City Library is the most striking example of the "Library And," though unlike the Mediatheque it is not taking elements that naturally integrate and combining them, but rather taking elements that have little to no relationship with one another and forcing a conglomeration. It seeks to reinvent the library not by evolving the concept along the lines of the information revolution, but by forcing a commercial scenario – a scenario that is successful and unlikely to diminish – in the hopes that some of that success will rub off on it. The Seattle Central Library is simply a standard library in a very impressive new container, but the container does little to progress the contents in any direction that is meaningful, innovative, or evolutionary. It takes what is current and accepted and safe and adds more and more of it, all within a situation that is visually arresting, while adding nothing new to the table. The Chicago State University Library takes a far different stance – the library is a pure library with no attempts at other features either integrated or made adjacent, nor is it concerned with taking what is current and simply wrapping it up in a new envelope. What it is doing however is taking a current problem and applying a very old solution using very new tools. It moves forward by going backwards. It tackles the issue of access by simply adding a new middle-man, a human librarian replaced by a robotic one, thus moving the problem around rather than actually addressing it.

A great deal can be learned from all four examples. It is difficult to take programmatic elements which naturally lend themselves well to accompany one another and integrate them spatially in any meaningful way. It is tempting to simply create a melting pot of features, always adding more and more components to make up for the weakness of any one particular idea, until a conglomeration is created that simply gets along because of the sheer inertia of the contents, and not because of any particular locomotive merits. It is a dead end to attempt to override the issue of innovation or development by simply adorning old ideas with progressively sleek and aesthetically pleasing skins. Architectural heft alone is insufficient to cope with the depth of the problem. Finally, a solution cannot be reached by simply doing old things in new ways, by throwing more and more advanced technology into the mix, with identical beginnings and ends. If a true advancement is to occur, there must be evolution at all points of the spectrum.

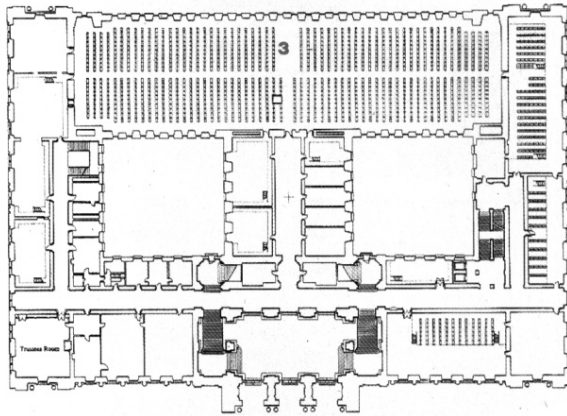


Figure 48: New York City Humanities Library

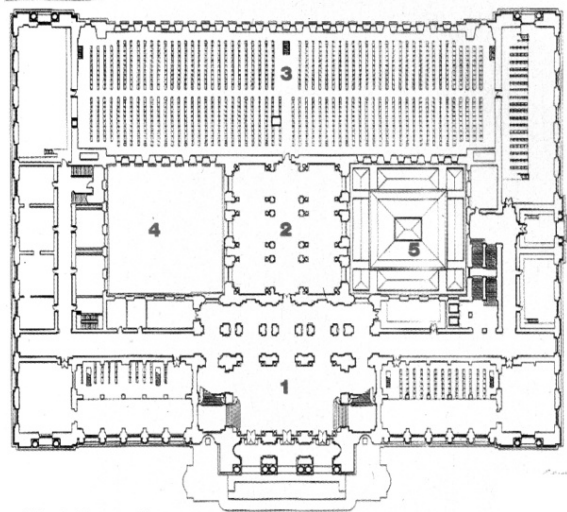
CASE STUDY 4 - The Nexus at 5th and 40th

What occurs at the intersection of 5th Avenue and 40th Street in midtown Manhattan is what I am calling a Nexus. It is a crossroads between a late 18th century library – built in the early 19th century, The Humanities and Social Sciences Library; a mid to late 20th century library, the Mid-Manhattan Library; and an early 21st century library (arguably still a late 20th century library), The South Court, within the Humanities Library. All of this is within or adjacent to the context of Bryant Park, or more specifically the 5th Avenue terrace of the park, which acts as a threshold to the Humanities Library.

The Humanities Library is a mighty Beaux Arts building that is perfectly at home surrounded by buildings five times its height, for in spite of this lofty distinction it manages to overpower all of its neighbors handily. It is a rare moment in New York City when your attention is so clearly and effortlessly fixed on one



Second-floor plan.

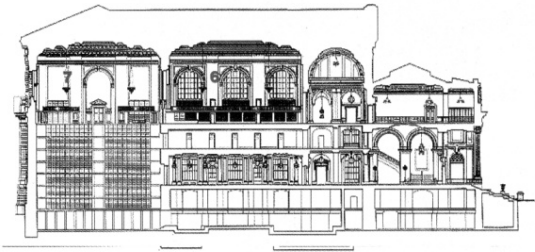


First-floor plan.

Figure 49: Humanities Library Plans

distinct aspect of the cityscape, and this is certainly one of them. Appropriately, the same is true for the interior of the library itself; the vast reading room has a similar effect on the contents of the building, even though it is only a small part, a mere fraction, when you consider the total interior square footage.

Part of the charm, or even quaintness, of the Humanities Library is the way the vast majority of it is simply off limits to the general public. This creates a mystique to the building, as if you were a visitor into a foreign land with new customs which you must follow or face expulsion. The five stories of stacks which remain hidden to the public eye can be seen as a metaphor for the contents of the books themselves; you have no proof that what is within is actually true, but you take it on good authority to be fact. These books cannot be taken from the library, thus compounding the mystique and feeling of being in a foreign land. No matter what you see and do within,



Cross section (Bryant Park, Fifth Avenue, left to right).

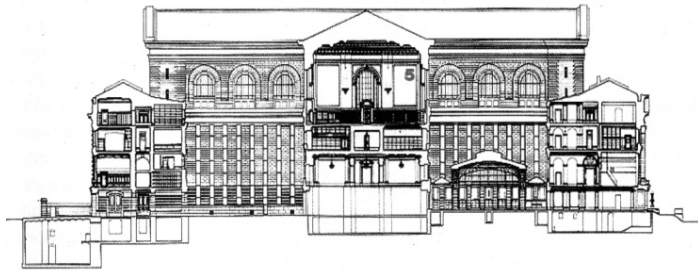


Figure 50: Humanities Library Sections

no matter how much time you spend, you can only depart with what you brought in with you, with the exception of the newly laid contents of your mind.

There is an undeniable, almost tangible feeling associated with being within the vast reading room of the Humanities library. A hush falls upon all those who enter. In some ways it is merely an interaction between the physics of sound and human nature. We know we must be quiet within a library, but within this space the slightest noise bounces and echoes at an increased intensity such that the source of this noise is quickly made very self conscious. It is the amplification of the noise which demands that those within be quiet. But it is far more than a simple behavioral trick into a state of quiet. Something about that space is very conducive to feelings associated with study, learning, and thought. Why this is so is much more difficult to pin down, but I do have a theory.



Figure 51: Humanities Library Reading Room

It has a great deal to do with the vast empty space that one finds one's self suddenly in. Immediately the human scale is torn away with staggering effects. Suddenly, humility takes precedence. When I say humility I am not talking about self humiliation, which has come to be the popular meaning, but the older, spiritual variety of humility, which simply means to completely forget yourself. Forgetting yourself, that is to say, forgetting all of the thousands of trivialities which bounce around in our heads at every conscious moment, is the first step towards reaching a state where we can achieve anything remotely resembling studious.

But, again, it has to be more than this. If it were simply the humility achieved by having the human scale violently torn from us in the direction of vastness, any great space would be a good spot for study. I imagine that this is not the case at all. One has only to look in the immediate vicinity to see other examples of vast open interior spaces: Grand Central Station, and any of the many great cathedrals in Manhattan. Though scale itself varies among these three examples, (Grand Central being much larger and most cathedrals not as large) in comparison to the human scale all three are equally vast. But why does the interior of the reading room elicit a feeling of thoughtful, scholarly meditation whereas these other spaces elicit nothing of the sort? Vast as they are, the shapes are different. Grand Central station involves a series of arched barrel vaults, creating a round dome-like interior. The arch is an excellent symbol for a gateway, for passage and thus transportation. A cathedral will use triangular forms, indicating towards heaven and the divine. The reading room in the humanities library however is rectilinear.



Figure 52: Humanities Library Fountain

It is a box. A box is for storage; here the storage of books. But what does that have to do with the quiet, contemplative ambience? An arch or a barrel vault indicate passage – they evoke an attitude of what is forward, ahead. The pointed chambers indicating towards heaven indicate what is beyond as well, though here in a spiritual sense of the almighty unattainable and perfection. Both of these work well with the sense of humility, but in taking our focus away from ourselves, they are thrusting our attention so far out of ourselves as to render it improper for focused study. However, a box indicates no directions but simply inside and outside. Thus, when you are inside, your focus turns to within.

Thus it is the simultaneous flood of humility combined with an inward focus, not inward into ourselves but inwards to whatever lines of thought we are internalizing, which is the source of this strong feeling associated with the reading room in the Humanities library. It is the cause, and the rest are



Figure 53: Humanities Library Reading Room

simply fortifications: the colors, textures of the materials, the quality of the light, the intricate carvings of the woodworks, the fundamentally decorative books lining the walls. All of this is context which gives the already present foundation a fine tuned shape. It would still be very possible to feel this way without all of these surface details present. But with them present, it is impossible to feel any other way. It is not simply a room; it is a finely crafted emotional engine.

Attempting the skeptic's point of view, then shouldn't any sufficiently vast rectilinear chamber also evoke this feeling? As I mentioned above, surface details can be the deciding factor. For instance, unless one is totally ignorant beyond any recognizable measure of anything that has to do with indoor sports, a gymnasium will produce enough contextual identity to quickly override the effects of being a vast box. On the other hand, a similar chamber in a museum can potentially overpower the artwork present – if the artwork is very bland

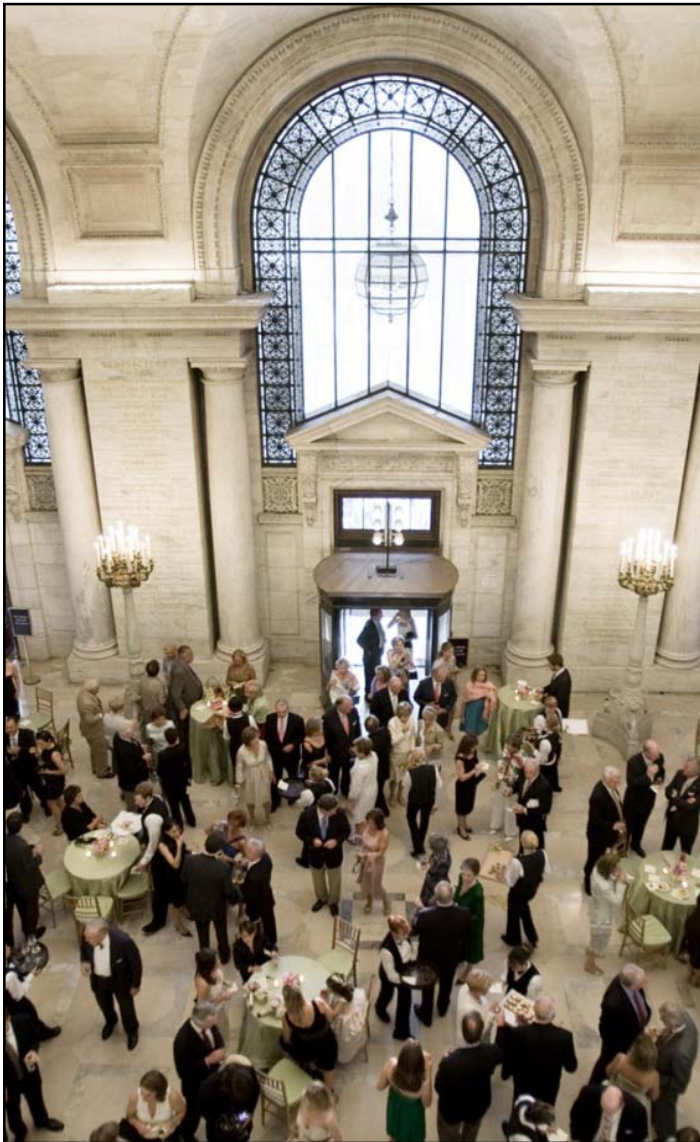


Figure 54: Humanities Library Lobby

and disinteresting – and produce in one present a state of quiet, inner reflection which would happily take the form of studiousness were a book and a task thrust into the hands of the one bored by the artwork. (I am speaking from personal experience, when my visit to the MoMA produced an excellent chance to open up my new camera’s user’s manual.)

Even if no book or task is thrust into the hands of the one present in the Humanity’s Library reading room, the feeling is still inescapable because of the flood of catalysts for it. Still, if one is intent on avoiding any emotion one will usually find a way to do so, and this is no exception. But first one must find that intention, and I think that most would find that thought rather unappealing when it comes to this space.

That is why this room is important. It is something only it can do. Icomde cannot match this, however, one must always be aware that there is usually more than one road to a desired



Figure 55: South Court Ceiling

destination, especially when the destination is something so open ended as a feeling. But then, just as we are ensorcelled so enthralingly by the ambience of this chamber, nearby is something very new and very different that inspired a very different effect. I am talking about the South Court. (Barreneche)

Where the reading room deals with the profound, the South Court deals in the novel. But it is merely novel. It is an interesting attempt at something clever, though perhaps it is its own cleverness that becomes its undoing, as it seems to be unable to cast off the shackles of being simply and utterly novel. It sets itself up as strikingly new in contrast to the antiquated to such a degree that it cannot go beyond the contrast. It exists simply to provide the contrast, and any use or meaning beyond that becomes lost. As useful or successful or important as it may or may not become, and in saying this I am taking the position that it is neither useful nor successful

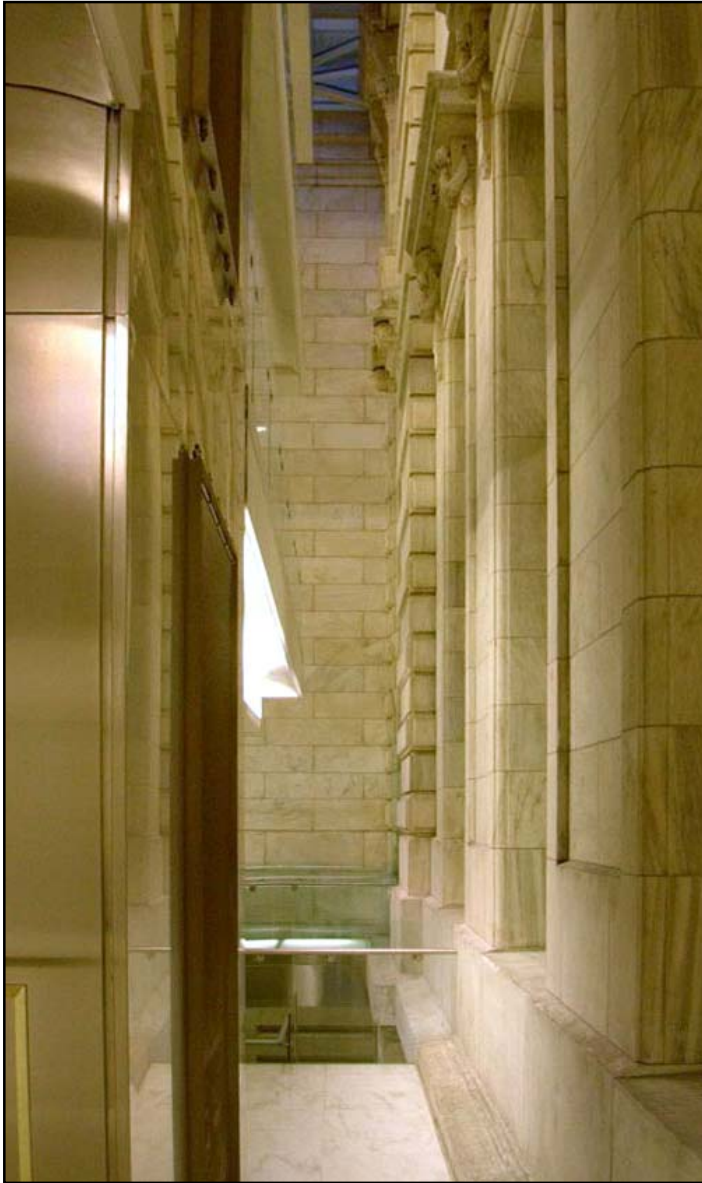


Figure 56: South Court Edge

nor important, it could potentially be so some day. It can never escape the stigmata of being the shiny new bit of metal surrounded in a sea of aged marble. It is the novel eternally butting heads with the quaint. As long as the two are preoccupied with each other, little else is possible.

Perhaps my attitude towards it would be different were I allowed into the glossy center of this contemporary gem, but restricting access to the public adds a layer of mystique to it which does not do it any credit at all. Mystique has little place among the novel; that which is novel thrives on frankness and openness. In the humanities library the vast troves of restricted area, floors upon floors of material which is restricted from the public eye, hand, and foot, is an integral part of the character of the building. But to translate this character into the south court was a mistake. It is possible I was simply there at a poor time and that the south court really is as transparent, open, and completely accessible as its contemporary

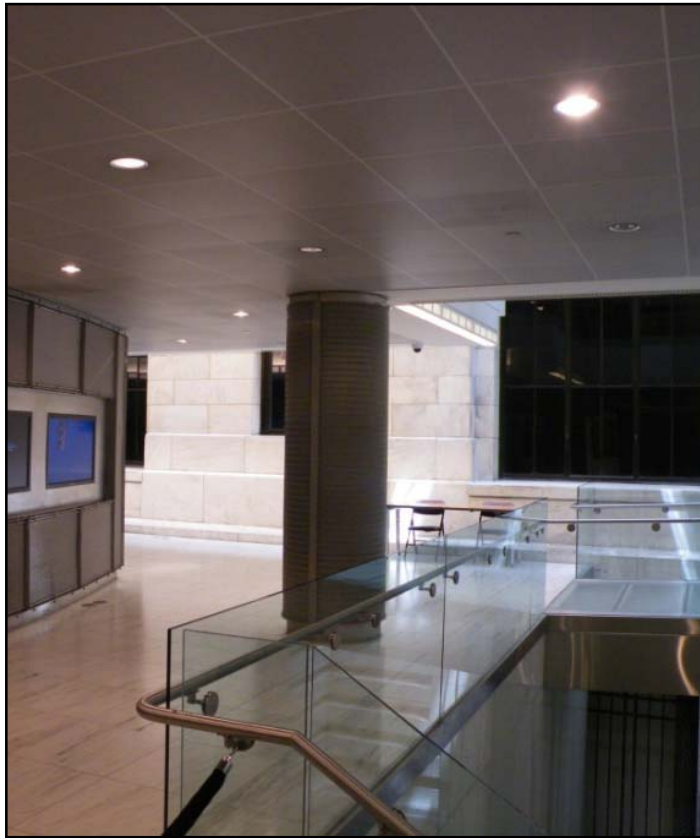


Figure 57: South Court Entrance

architectural vocabulary would suggest, but if this is the case there was no indication of when I should return for a second attempt. By all measures, it was closed; restricted; the great gold coin clutched in the palm that has no value in any real sense because the owner would never be willing to part with it. Icomde would, at a glance, possess much more in common with the South Court than it would with the Humanities Library. However, the South Court provides an excellent example of the first thing not to do. If you build it they will come; but not if you lock the door.

Perhaps I am being unreasonable, as the South Court was not actually designed to be a new library within an old library, but simply another branch or division within the Humanities Library; a symbiote, not a partner. The strife begins with the presentation of the building and ends with the chafing disappointment which ensues when one realizes the truth. This is simply not an attempt at creating a new 21st century library.



Figure 58: Mid-Manhattan Library Exterior

It is a set of offices, a few classrooms, a theater, and several other multipurpose spaces which compliment the floorplan of the Humanities library. It is a triviality that it also happens to be a fine work of architectural imagination. This hurts it more than helps it, because of the grand expectations it builds which ultimately have an impossible payoff. The same old thing is far worse when it is dressed up as something new and different.

This brings us to the third point in the nexus, a place that is neither novel nor quaint – the Mid Manhattan library. Just because it lacks novelty of any sort does not mean that it is also devoid of the frankness which novelty requires; in fact it possesses frankness in great abundance, as if it were its proudest asset.

In truth, the Mid-Manhattan library could be comprised entirely of unadorned concrete slabs filled with rows of shipping palettes stacked to the ceiling with cardboard boxes filled with books and it would make little difference, provided that the same



Figure 59: Mid-Manhattan Library Stacks

quantity of places on which to assume a seated position and surfaces at which placing the object of our interest is at a comfortable distance to both our eyes and hands were present. Here I could easily launch into a debate concerning what is architecture versus what is building versus which is strictly shelter, but to do so would be irrelevant, because this building renders any such thought process as irrelevant. It stores books. It keeps them at a proper humidity to prevent mold and keeps direct sunlight from bleaching the coverings. It keeps the snow and the rain out. It provides places to be if you do not wish to leave with the books, and if you do, the staff and equipment necessary to make this as painless a process as possible. It is the quintessential late-20th century library. It does not care to be anything else, and in fact cares about nothing at all, for no component is capable of eliciting any feelings at all from those within.

I am not saying that this is inappropriate. If one is interested



Figure 60: Mid-Manhattan Library Reading Area

in a book, the building is not important. Much the way some will insist that a church is not a building but the people in it, and the building itself is irrelevant, here the library is the collection of books, and the building they happen to be in is irrelevant.

While I was visiting this library, I was audience to a conversation which I could not have avoided, for the confines of an elevator car turn eavesdroppers into confidants. A visitor to the library was outraged that the first staff person she encountered was unable to help her, but instead pointed her to someone else. Now, in a different situation one can clearly see how foolish this is. If one calls the plumber and a secretary answers the phone, one would not expect the secretary to come and fix the pipes, nor would one become outraged if the secretary tells you that the plumber, a completely different person, will be able to help you on Tuesday. However, in a library, it seems not so trivial at all and one may be tempted to

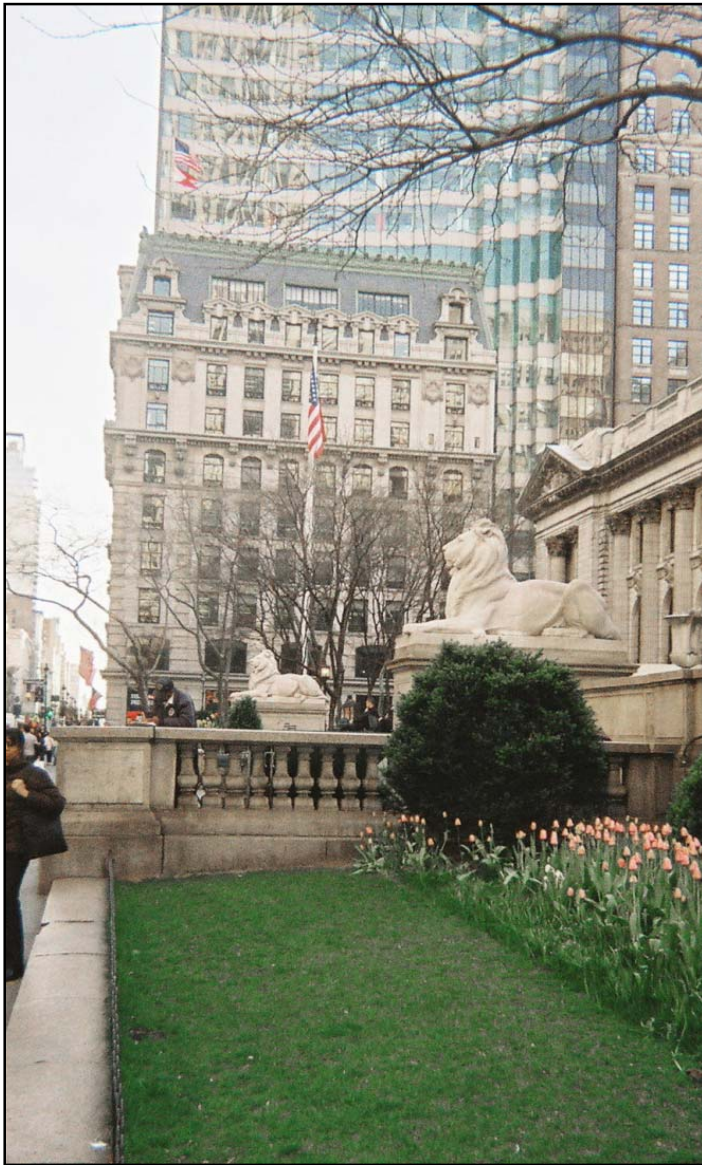


Figure 61: Humanities Library 5th Avenue Terrace

take this outraged individual's side. But in another sense it is an even greater absurdity to expect that the person at a desk is at fault for referring the guest to someone else for help, when one considers that the plumber's secretary could, assuming them physically fit for the task, do a plumber's work with only a few weeks of training, whereas a librarian will go to school to achieve this noteworthy title for many years of intense education.

This is relevant because I do not expect the same thing would have happened at the Humanities library. The situation could have been exactly the same, but it is possible that the guest would have displayed understanding and patience, maybe even an awareness of why this was happening at all, in that, comparatively speaking, holy ground. In the Mid-Manhattan library, you are in a warehouse, and those who attend to you are not librarians, but warehouse workers, and in a warehouse, though there is still a hierarchy, the only distinct difference

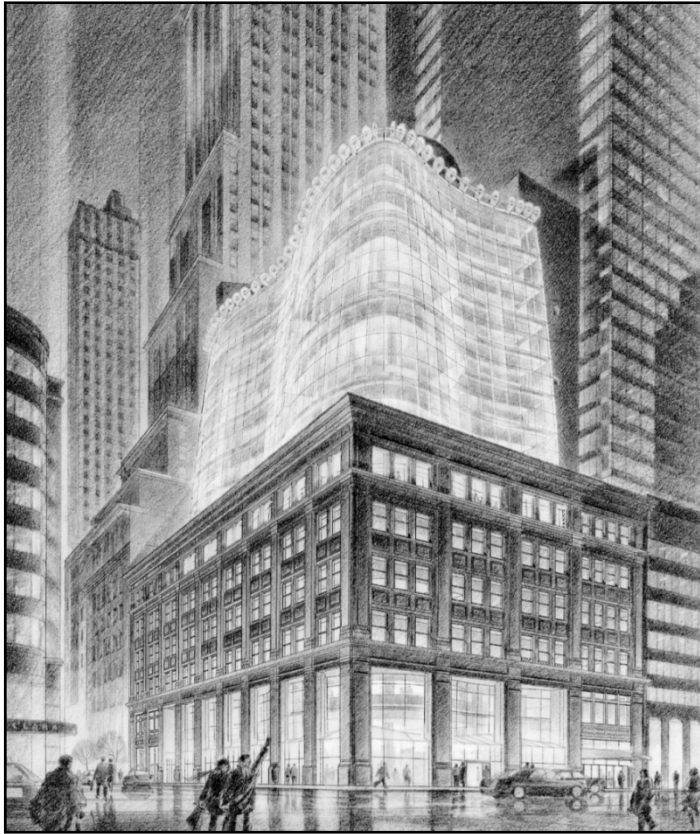


Figure 62: Mid-Manhattan Library Proposed Renovation Exterior

between the workers is that some have forklifts and others do not, and it is very plain for an outsider to tell the difference between a task that requires a forklift and one that does not. To the guest at the Mid-Manhattan library, they expected that the help they needed did not require a forklift, and were thus offended when the worker, who was identical to all other workers present, indicated that a forklift operator was needed.

If the three libraries are the nodes in the nexus, then the 5th Avenue terrace of Bryant Park is the fabric of it. The Humanities Library is a resident of the park, not its purpose. During one of my visits, the 5th Avenue entrance to the Humanities library was closed. The library was not closed, but that way in was barricaded. However, the congestion on the terrace was not diminished due to this detour; in fact it was the most congested I had seen it. It was around noon, and thus many people were on the terrace seated enjoying takeout or bagged lunches. The fact that the entrance to the library was

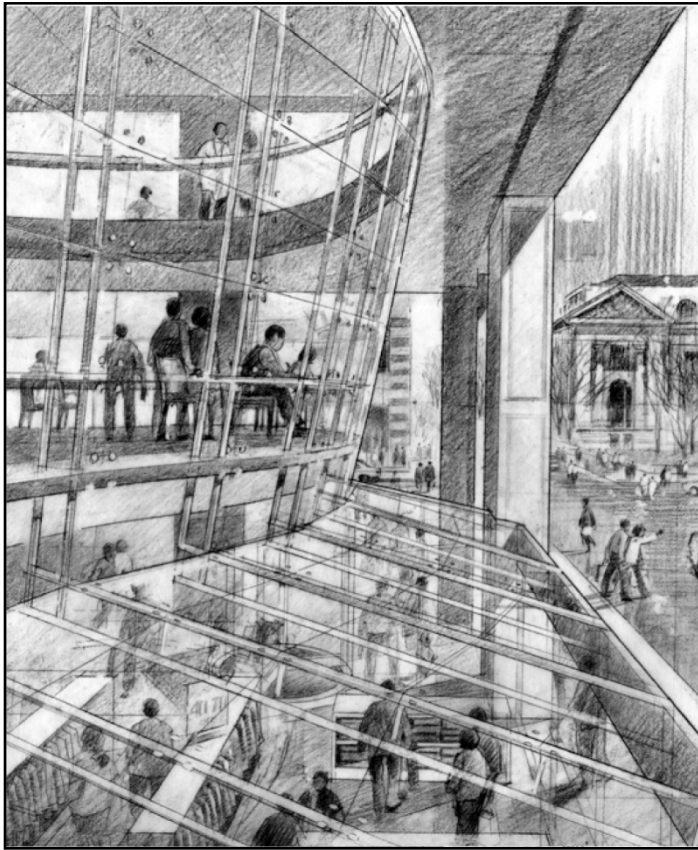


Figure 63: Mid-Manhattan Library Proposed Renovation Street Edge

closed had no significance to this end. The people gathered here are here for the park, not the library – the library provides context and a sense of place, but it is not the destination. Therefore, there is room for more. If this were not the case, if the park's sole purpose was to serve as a threshold to the Humanities Library, than putting Icomde on the 5th Avenue terrace would be a mistake. It is not simply a matter of if there is physical space, but if there is an appropriate expanse within the fabric of the nexus to allow for another node. There is.

The situations described in this discussion are temporary; there is impending change. There is a progressing plan to remodel the Humanities library – a remodeling so dramatic they will even change the name of the library (NYPL.org) – as well as a proposal for a complete reconstruction of the Mid-Manhattan library which is even more of a departure than what is planned for the Humanities Library. (Gwathmey Siegal & Associates Architects llc.)

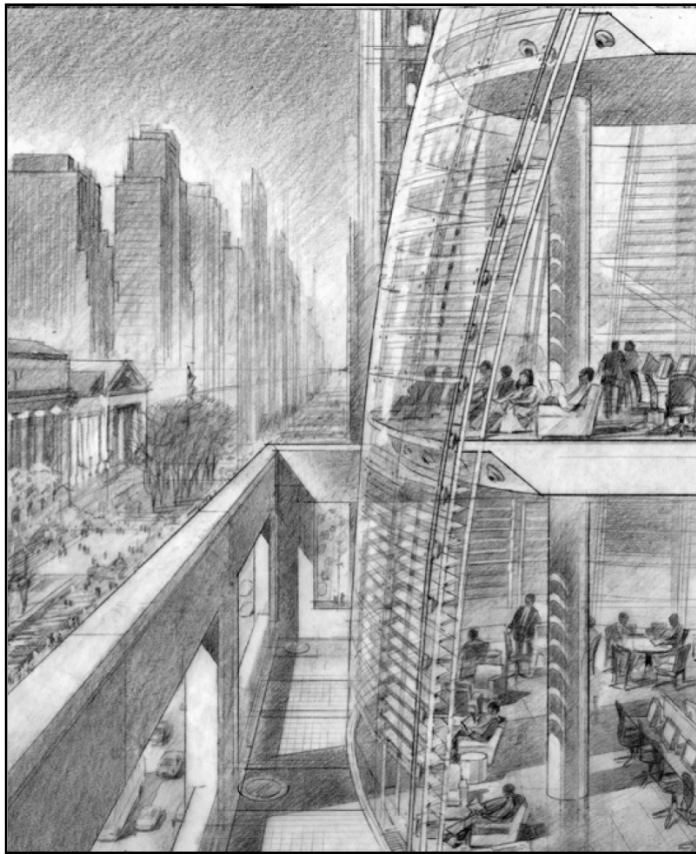


Figure 64: Mid-Manhattan Library Proposed Renovation Section Perspective

Little information is available at the time of this writing, but the plan as publicized is to modernize the Humanities library by thrusting it into the late 20th century. Yes, the model they are proposing is cutting edge for last decade. A great excavation under Bryant Park is planned to create a new high density storage space for the stacks – packing them in tighter than ever before, and the expansive 5 stories which have thus far been inaccessible to the public will be opened up for purposes yet vague and unspecified, though hints of information access are promised. The grand reading room is expected to remain mostly unchanged, except that it will no longer be the main public feature of the library; focus will be shifted to the new facilities, staging a war of old versus new within those halls. Of course, this is simply my perspective on the hyperbole-filled press releases concerning the plans.

Plans for the Mid-Manhattan Library are even more dramatic, though at the moment they remain on the drawing board. The structural shell and facade of the building is all that will remain, serving only as a template for an undulating column of steel and glass which will rise out of the site to twice the building's original height. The plan for the completely new interior has echoes of the Salt Lake City Public Library, that is the commercialization of the library, creating a mixed library/retail/convenience outlet forged from the most contemporary of architectural vocabularies. In spite of this bold plan, the cryptic use of indefinable terms such as 'information commons' renders their intentions for innovation of function within this re-imagined building anyone's guess. Though several hundred desktop and notebook PC terminals for free public use are promised, this parallels the current dead-end folly of trying to bring the library into the information age by simply adding more and more PCs. One cannot turn a steak into a pastry by simply pouring sugar and flour on it.

It is clear from both of these redesigns – though one is moving forward and the other is simply a proposal at this point – that the Public Library System in New York City is aware of the need for the library to change. It is also clear that they are committed to taking incremental, timid steps to this end, for as public institutions they are utilizing public funds, and this combination is inherently diluted. The need for a leader in this transition, something to take the bold, risky leaps that the public institutions are unwilling or unable to take, will be filled by Icomde. The other nodes in the nexus will be serving as a dramatic contrasting backdrop to highlight just how much of a leap Icomde is.

There will be no grand reading room in the same sense as in the Humanities Library, nor will there be a warehouse-like store of tomes as is publicly available in the Mid-Manhattan Library and hidden from the public touch in the Humanities Library. It is unlikely that these roles will be removed from the existing facilities, and thus there is no need for Icomde to replicate or mimic what is already done. That is the most important reason for Icomde to be set within this nexus – the functions which it does not intend to fulfill will be fulfilled by its neighbors. It can be forged as a pure, complete vision and not diluted by expectations of convention.

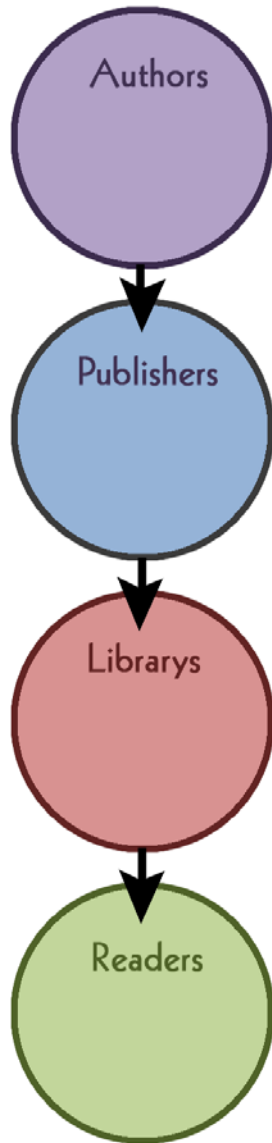


Figure 65: The Traditional System, 1800s to Present

CASE STUDY 5 - The User Generated Revolution

We access our information differently today than in past decades and centuries. Why is this a revolution? We still use books and radio, cable and broadcast television, and now the Internet. The Internet can fill the basic role of all of these previous forms of information communication – read, heard, and viewed – but we are still merely reading, hearing, and viewing. The distinction lies in the directions the information travels. In previous eras, only a small few could write, and even though in modern times most people are literate, there are still only a scant fraction who are able to have their written works published for all to see. The same goes for radio and television – it is consumption by the many the production of the few.

However, with the Internet, the information travels in all directions at once.

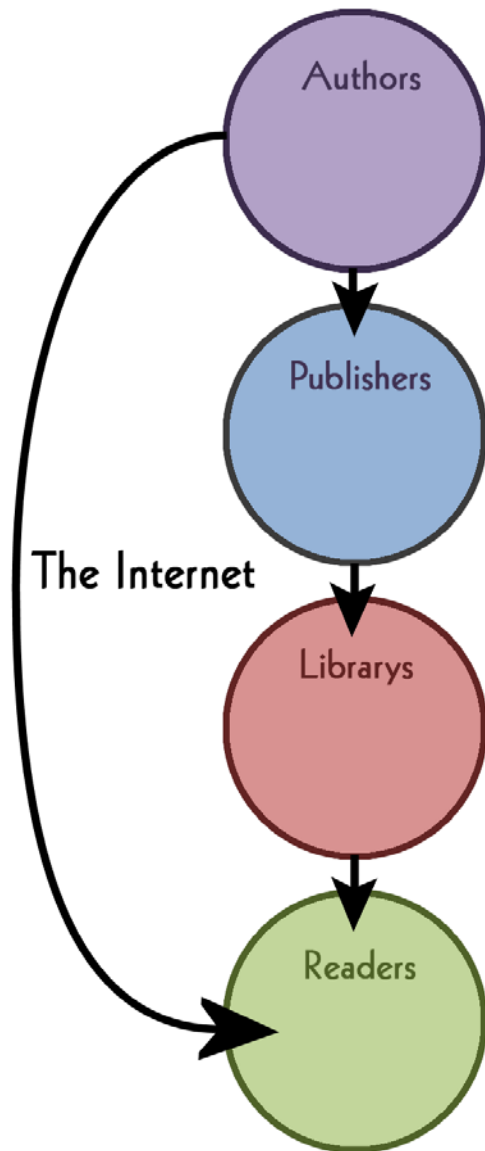


Figure 66: The Internet Bypass

To explain further, I will illustrate the case for books, since most of the information on the internet is text. For books, four players can be identified; authors, publishers, libraries (or bookstores), and readers. Traditional systems provide a linear approach where authors work through publishers to get their work to their readers, with the library as one possible outlet for this work. There was no way to get your work into the library without first going through a publisher – usually a highly competitive corporation which has the bottom line as its highest priority – thus the library, a fundamentally non economic/capitalist institution, is at the mercy of fundamentally economic/capitalist institutions to provide them with content.

The internet has bridged the gap and connected authors to readers directly, and in effect, actually blurs the distinction between the authors and the readers. The linear arrangement has been reorganized into a concentric one. Authors are part of a reader community rather than disconnected through

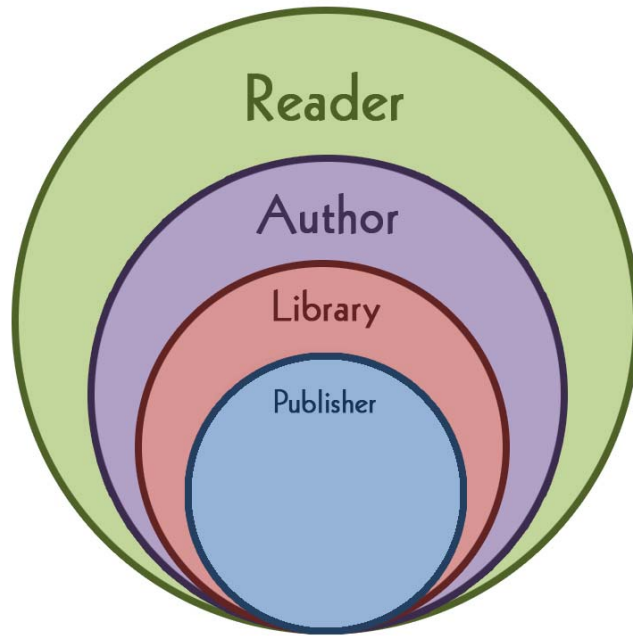


Figure 67: Concentric Arrangement

corporate publishing monopolies, with these communities possessing the power over publishing – and this power is almost always kept extremely egalitarian.

This user generated revolution has been dubbed Web 2.0 (O'Reilly) by some (though the idea is tenuous considering that it was user generated content that drove the Internet from its original conception) so that is the moniker this case study will use. Several distinct aspects of Web 2.0 have been identified, and this paper will briefly look at each in turn.



Figure 68: Social Networking Example - Myspace Music

Social Networking

Though most immediately think of corporate goliaths such as Myspace and Facebook, in truth social networking groups on the Internet are extremely numerous and varied. Though some use a specific theme, the fundamental design of social networking is to turn keeping one's address book into a gregarious and often competitive game. Users create a homepage which on the one hand resembles a personals ad, with biographic information, photos, and an onslaught of that user's tastes, and on the other hand a constantly evolving and self updating address book, with all of that user's friends, acquaintances, family, and enemies, organized and just a click away. (O'Reilly)

While Social Networking could be seen as the least productive or creative of the Web 2.0 aspects, it is also an important tool in allowing the aspects that are creative and productive to flourish. If a person does create something – a story, a video, a song,

music, and so forth – if they are involved heavily in social networking, they will have a much stronger chance of having their work seen and heard by many people than one who merely focuses on the creative works themselves.



Figure 69: Wiki Example - Wikipedia

Wikis

If social networking is the most social and least productive aspect, then the wikis are its inverse. Apparently egoless and completely devoted to raw information, Wikis are compendiums of knowledge – both factual and fictitious – on every topic imaginable, designed so that any member user can add, and modify any content he or she chooses, as long as it conforms to the basic rules of that wiki. (O'Reilly) To one viewing a wiki, those who edit it can be completely invisible – it is about the topic at hand, not those who are interested in that topic. To those involved in wiki creation, it can be a chance to associate with others who are as passionate and knowledgeable about a given topic as they are.

The danger of the wiki is as old as information itself – misinformation. Since they are written and maintained entirely by whoever wishes to, the risk is always high for the spread of ignorance, and outright malicious misinformation. The wiki is a

self governing system however, and the hope is that over time, the content that rings the most "true" will rise to the top and the content that is false will eventually be edited out, but this is an idealization. Some wikis attempt to restrict access to certified "experts" on a topic, but this causes two problems – what constitutes an expert, and does this make the resource no longer a wiki at all?

However, one must not "lose sleep" over the idea that this tremendous phenomenon is the propagator of lies and deceit, considering that a major publisher is just as likely to publish a bestselling nonfiction book that is just as prone to malicious misinformation as any wiki.

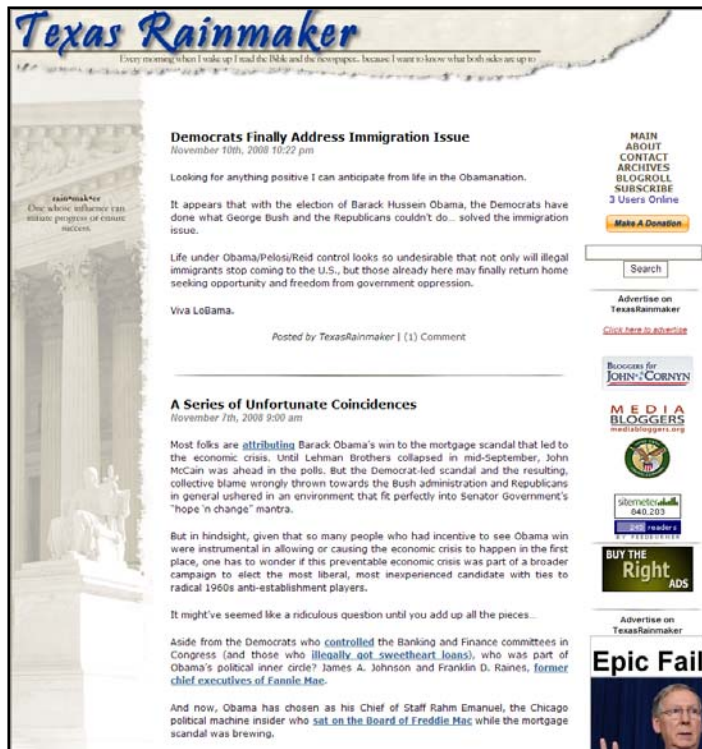


Figure 70: Political Blog Example - Texas Rainmaker

Blogs

Bridging the gap between social networking and the wiki are the blogs – sometimes referred to as blogosphere when talking about the “world” of blogs. (O’Reilly) Like social networking, blogs are a gregarious, egocentric realm where who knows you is at least as important as what you know. Like the wikis, blogs are about information – or simply what the one running the blog knows, thinks, or thinks that they know. Blogs are often highly political, proudly opinionated, intensely competitive, and ideologically driven. On the other hand, for every bile-driven politically polarized rant-blog on the Internet, there is one devoted to photos of fluffy cute animals.

An offshoot of the blog is the online journal, which unlike blogs, are not devoted to information that is either relevant or pertinent, but simple stories about the daily life of the author, written in the hopes of finding empathy, or merely to blow off steam. The dividing distinction comes with the idea that a blog

is somehow a work of amateur journalism, whereas the other is merely an amateur's journal. The dividing line between the two can be difficult to pin down, and some blogs/journals hard to categorize as one or the other, but it comes down to this. A blog is about a topic other than the author him or herself. An online journal is entirely about the author.



Figure 71: Folksonomy Tag Cloud - Artist's Interpretation

Folksonomy

The folksonomy is not a type of online site in itself, but a method of organization a site may use which makes it a part of Web 2.0. (O'Reilly) It is the technique of using "tags" to categorize content rather than a simple linear hierarchy. These tags are often generated at will by users rather than drawn from a list of prepared topics, and displayed to browsers as an alphabetized list in a justified block with each word a different size and boldness depending on how frequent the tag is.

The folksonomy is used whenever a site is dedicated to the hosting of user-submitted content, such as video, art, photography, fiction, or music. However it is also widely used in social networking, wikis, and blogs.

As a method of organization, it brings the ideology of Web 2.0 to the forefront. Often seen as a bottom-up approach to

classification, it empowers the users and popular demand to shape the structure of the online environment, rather than delegating it to a small group of “in the know” individuals who must decide what goes where, what is more important, and who should know what. The organization is web-like, allowing a topic to exist under multiple simultaneous classifications, and organized in two directions at once – alphabetization allows a browser to easily find the tag they want, and size distinction allows the browser to easily see what is the most or least popular.

The screenshot shows the TTLG forum interface. At the top, there are navigation links for various game categories: System Shock Windows Xp, Morrowind Game Cheats, and BioShock. Below this is a welcome message and a list of forum sections. A table lists the most active threads in each section, showing thread titles, authors, dates, and post counts.

Forum	Last Post	Threads	Posts	Moderator
Community Center				
Community Chat (8 Viewing)	Spiderell by lo organic industrialism 14th Nov 2008 20:55	17,925	483,655	Gingerbread Man, David
Forums & TTLG Website Network	A suggestion concerning the... by David 14th Nov 2008 02:14	749	7,940	Gingerbread Man
Technical & Troubleshooting Arena (4 Viewing)	Thief Gold by theblackman 14th Nov 2008 14:04	4,016	26,509	TheOutrider, David
Legacy Gaming Technical Help (6 Viewing)	Thief trilogy + SS2 on Nvidia... by Evax1002 14th Nov 2008 17:58	566	8,238	Gingerbread Man, David
Gaming				
General Gaming (4 Viewing)	Fallout 3 Impressions by catbird 14th Nov 2008 20:52	5,895	127,944	Ulukai, TheOutrider
S.T.A.L.K.E.R. (1 Viewing)	Clear Sky - Worth getting now? by chiz 13th Nov 2008 17:27	242	6,130	Gingerbread Man, David
BioShock				
BioShock General Discussion (2 Viewing)	Teaser Trailer of BioShock 2... by Subjective Effect 14th Nov 2008 20:59	1,001	29,033	Vraptor7, David, Gingerbread Man
BioShock Hints and Spoilers	- 9th Nov 2008 04:59	183	1,525	Gingerbread Man, Vraptor7, David
LGS Classics				

Figure 72: Community Forum Example - Through the Looking Glass (TTLG)

Forums

The web forum is as old as the Internet itself, and as such often not considered a part of Web 2.0. Forums take many shapes and sizes, but basically come down to the ideas of discussion. It is about many users sharing a place where topics can be freely (or not so freely) discussed among equals. Unlike social networking, a forum is devoted to a specific topic and it is that topic which takes precedence. Unlike a wiki, no poster present may truly take the guise of authority and present information as fact – all that is presented is done so for the purpose of discussion and debate. Unlike a blog, it is not the case of many coming to read the words of a few – all are granted equal voice, with no figurehead preaching to the masses. All of these are, of course, idealizations. Forums, like any area for human discussion, are prone to all of the pitfalls listed above, but somehow the idea is maintained.

Threads in Forum : Thief Fan Missions		Forum Tools		Search this Forum	
Announcement: New Accounts are being manually verified David (TTLG Forum Admin) Views: 2,481 1st Oct 2008					
Thread	Thread Starter	Last Post	Replies		
Important: Thief Fan Missions FAQ	NickO	13th Feb 2007 10:03 by Nightwalker	1		
Important: Fan mission listing by type. (ie. Horror, Mansion, City, Most recommended, etc) WIP (1 2 3)	kamyk	13th Nov 2008 10:50 by sh...	59		
Important: 10th Anniversary Contest! (1 2 3)	Brethren	30th Oct 2008 13:51 by sileekareGarret	68		
Important: Pavlovscat's FM Reviews	pavlovscat	1st Jul 2008 16:07 by pavlovscat	0		
New FM - Rust Belt Prison	john9818a	14th Nov 2008 20:55 by john9818a	0		
T3 FM: The Keeper by Sovar (Nov 10, 2008) Update: Italian language added (1 2 3)	clearing	14th Nov 2008 19:55 by clearing	59		
Poll: Do you like FM's with maritime setting and ships?	intruder	14th Nov 2008 18:58 by SneakyJack	19		
Dracula - Reloaded (14/11/2008 - Re-Release)	Sensut	14th Nov 2008 18:58 by Avallion	5		
Poll: When should DP2 be released? (1 2 3 4 5)	Yandros	14th Nov 2008 18:38 by flying_hops	100		
New T2 FM: Mystic Gems II - Heart of Bohn 24/08/08 (v1.1) (1 2 3 4 5 6 7)	Wille	14th Nov 2008 17:00 by Wille	150		
The Art of Thievery Dec. 8, 2001 (1 2 3 4 5 6 7 8)	Nightwalker	14th Nov 2008 16:23 by pavlovscat	198		
T3 mission in progress	clearing	14th Nov 2008 14:17 by BikerJude	13		
MOH: Last Caress June 3/07 (1 2 3 4)	dkessler	14th Nov 2008 13:37 by Random_Taffer	75		
Lost City missions?	The Watcher	14th Nov 2008 13:34 by The Phantom	12		
old skool t1 (1 2)	Griffin Bain	14th Nov 2008 13:00 by Hamless Vitor	36		
hello	Xiphos	14th Nov 2008 07:25 by Sam	10		
New T2 FM: Keeper Investigations 2 & 3 (09.11.2008) (1 2 3)	intruder	14th Nov 2008 07:05 by intruder	55		
New T2 FM: Elizabeth Bathory Chapter III - On All Souls' Day (29 Aug, 2008) (1 2 3 4 5 6 7 8 9 ... Last Page)	clearing	14th Nov 2008 05:37 by clearing	228		
List of Upcoming and Abandoned Fanmissions (1 2 3 4 5 6 7 8 9 ... Last Page)	The Phantom	14th Nov 2008 03:51 by clearing	357		
Please discuss GarretLoader issues in this thread (1 2 3 4 5 6 7 8 9 ... Last Page)	bobber	14th Nov 2008 03:35 by Beleg Clithalion	615		
The Name That FM Game (1 2 3 4 5 6 7 8 9 ... Last Page)	SlyFoxx	14th Nov 2008 02:49 by clearing	630		

Figure 73: Forum Example – TTLG Threaded Topic View

I speak here from personal experience, as I am the founder and administrator of a forum which was founded in 1998, devoted to the discussion of certain carefully selected computer games. This forum (www.ttlg.com/forums) has over twenty thousand registered members (though only about a thousand are ever active at a time), and has generated well over a million posts during those ten years. At any given moment, about ten to forty of those registered members will be online reading or posting, with around one hundred nonregistered guests viewing. In spite of its considerable size and popularity, only a staff of about a dozen are required to moderate this forum. Once a tone or style of governing as been established, as my staff and I have done over the past decade, the forum becomes remarkably self governing, with users knowing what to expect, what is and is not acceptable, and most conforming to these norms. Most infractions are given to new members who do not understand the forum's "culture" with the moderation of long-time users being extremely rare.

Information as Place

A strange phenomenon is taking place. People are beginning to associate information with place. I have noticed this occurring time and again on my own forum over the past decade, with the users of this online community repeatedly expressing feelings of location, being, and even being at home, towards something that is apparently no more than information displayed on a monitor. Yet, somehow, to many people, it is much, much more than that.

It is not simply the deep camaraderie that develops between members, or even the relationships that develop (some of which have resulted in marriage!) over the years. Many consider the forum, social networking site, wiki or blog or folksonomy- organized media archiving site they frequent to be a "place" that they "go to" to "be with" people that they know and like, and even greatly prefer to the places that they go to be with people in the "real world". I stress that this has nothing to do with virtual worlds presented with 3D graphics of visually-defined locations where users may control representations of themselves to interact with others (though this thing I described certainly exists) – it is common on the most simple, entirely text-driven discussion bulletin boards.

How does this occur? I cannot pretend to understand the psychology behind it, but it is clear to me that it is the communication, the sharing of knowledge and creative talents, which creates this bond and this sense of place about mere information. We cannot develop the same sense from a book, newspaper, radio or television broadcast, because we are simply the audience. There is nothing to connect us to other people through our contributions – and it is this

connection and sense of contribution which creates this idea of "being in a place." If opening a book was able to connect us directly to the book's author and allow us to interact with them in both directions, rather than simply one direction, then it is possible that a book too could generate a sense of place. What is more interesting is that these are places that exist nowhere and we can take with us anywhere. I can just as easily "go to" my forum from my apartment, from studio on my laptop, or from the information commons in the library, and have the exact same experience (provided of course that their keyboards are in proper working order).

Conclusions

It is not merely the organizational shift from a linear "top down" arrangement of information from a small number of sources to a massive audience to a concentric one of source/audience communities which defines the information revolution, nor is it the idea of millions of people worldwide sharing their knowledge and talents freely and with profound opportunities for finding that audience. It is the strange sense of place that is generated from these "virtual" locations where information is shared, topics are discussed, talents are presented, and bonds are built. It is the revolution of information creating a sense of being and location and a reality that is, while maybe not more "real", but somehow preferable to the real one.

This is the information revolution which my thesis seeks to embrace.

CASE STUDY 6 - Technologies

Various emerging technologies impact the design and nature of Icomde. Some of these will directly determine the programmatic functions and nature of the spaces, whereas others are more conceptual in nature or tailor user's experiences and do not necessarily have an impact on the architectural or visual design of any spaces. This case study will begin with the two most important aspects of computing: input and output.

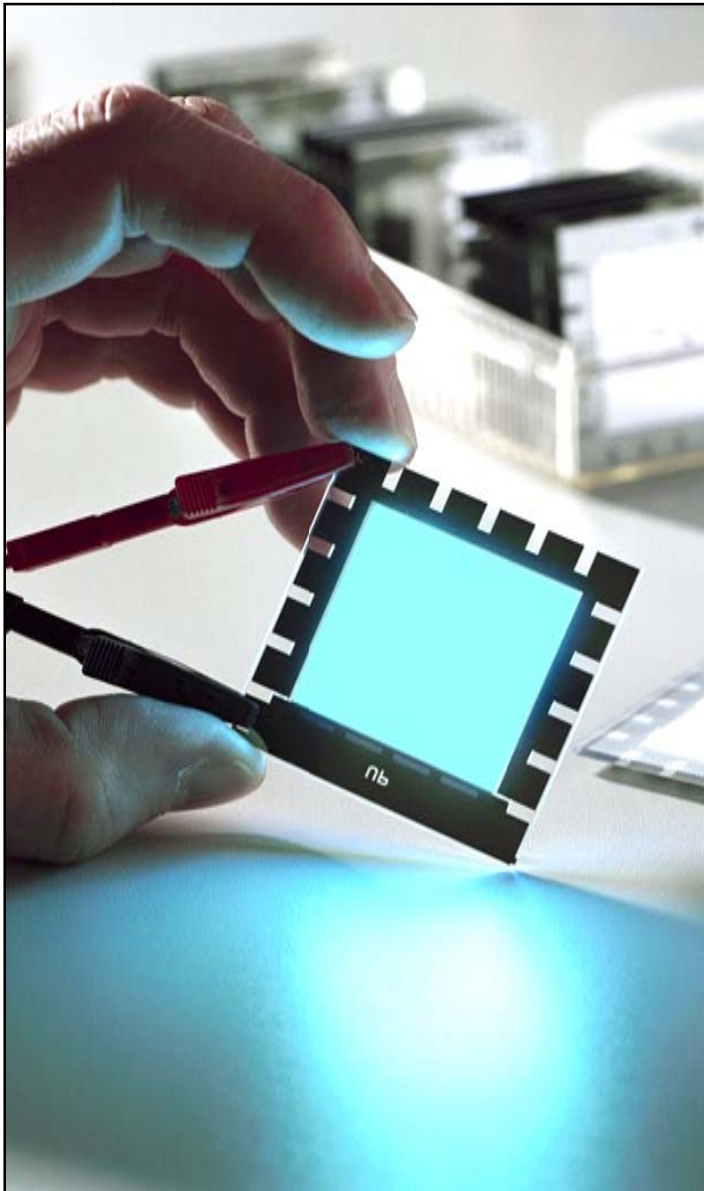


Figure 74: Organic Light-Emitting Diode

Output – Computing as Architecture

Display technology can be traced back all the way to Edison's first light bulb. The first cathode ray tube (CRT) displays were essentially that; extremely complex light bulbs. As such, they were extremely bulky and heavy. Considering that, it is not surprising that when liquid crystal displays (LCDs) became a feasible and affordable display technology, they were quickly embraced. Though the LCD solved most of the problems that plagued the CRTs, they still required an enormous amount of energy to run, brought new problems such as limited viewing angles, and though they were extremely thin compared to the CRT, simply not thin enough.

The organic light-emitting diode (OLED) is the next great step in display technology. Though currently in its infancy, the demand for thinner displays that use less energy, have high image fidelity, and offer complete portability is driving research

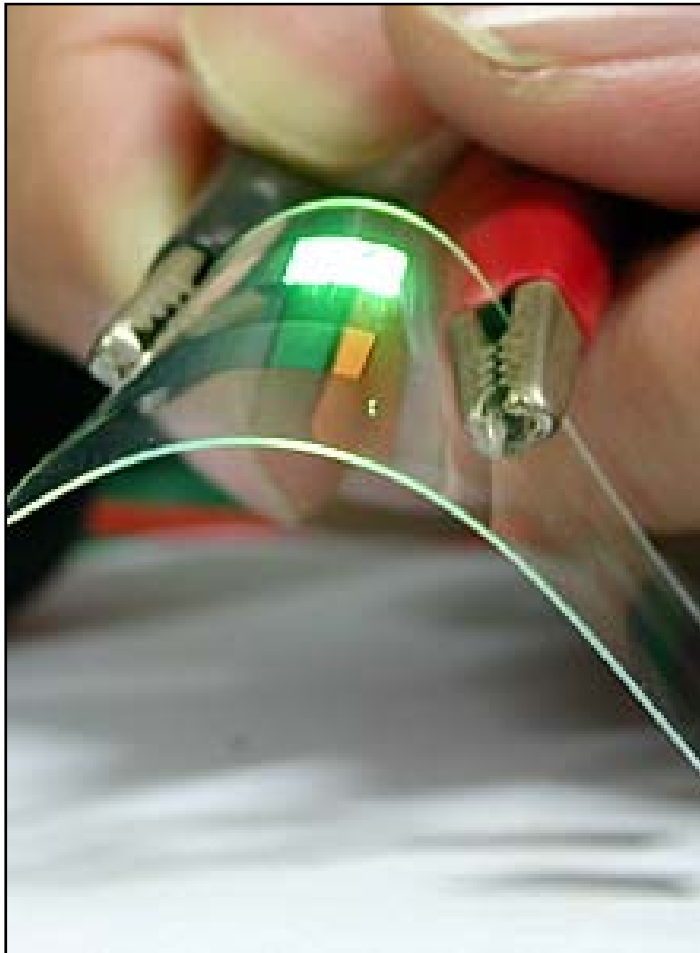


Figure 75: Flexibility in OLEDs

and development of the OLED to make leaps and bounds. The OLED actually uses organic chemical luminescence discovered from examining deep sea creatures. It requires no back-light, which allows the display to be millimeters thick, viewable in direct sunlight, and most dramatically, actually flexible. (Kageyama) Unlike CRT and LCD displays, the OLED would not be limited to restrictive bit-depths and aspect ratios, but able to take any shape and size. Because it is flexible, it allows for the possibility of curved displays that wrap around the user's field of vision or, more excitingly, and with many more years of development, displays that can be freely rolled, twisted, and deformed as easily as a sheet of thin plastic.

The OLED becomes pertinent to architecture when one ceases to see the computer as an object to be placed on a desk or table, and imagines it as part of the built environment. A computer could **be** the desk or table, or better yet, a window, or an entire wall, or even the floor and ceiling. If the OLED



Figure 76: Sony's 11" OLED TV

truly holds the promise that it presents, there could be no limit to how it could be incorporated into our daily environment.

To truly grasp these possibilities, input must be discussed.



Figure 77: Traditional Input Device: Keyboard

Input – Active

Input devices for computers evolve slowly and greatly resist change. For example, the most advanced computers we use today still require devices similar to last era's typewriters for input. However, as paradigms rapidly break down and the minds of innovators become open to new ideas, things are rapidly beginning to change. Input devices are being redefined into systems that allow computers to understand active inputs such as touch and gesture, and understand passive input such as facial expressions.

Touch screens themselves have existed nearly as long as personal computers themselves, but they remained inaccurate, slow to respond, and most importantly, only able to interpret a single input at a time. This meant that only a single on/off command was possible – no movements or gestures, and no multiple inputs. Development progressed quietly in the form of



Figure 78: Multi-Touch, Multi-User, Microsoft Surface Table Computer

artist's drawing tablets, improving the accuracy dramatically and implementing motions and gestures.

Touch as an input device would not come to the forefront until a system was devised to allow for multiple simultaneous commands, which suddenly allowed control over the interface to take on a much more natural, organic system; no longer were users limited to poking with a fingertip or stylus; now one could dig in with both hands.

This technique went mainstream with several popular products by Apple corporation, as well as lesser known but far more ambitious products by Microsoft, such as a computerized coffee table. While Apple was attempting to put a multi-touch interface in our pockets and Microsoft in our living rooms (both at prices prohibitive to most) Perceptive Pixel's much more



Figure 79: Perceptive Pixel's Wall Computer

dramatic and ambitious design of creating wall-sized multi-touch interfaces brought the technology into use by CNN and the US military.

The input does not have to be human nor even intentional – responses can result from any detectable change in the environment. The key is that it is not simply multiple inputs that the devices can respond to, but different qualities of those inputs as well. Touch varies in pressure, speed, and proximity. A firm press is a different command than a wave or a tap. The touch of a cold finger or object can be interpreted differently from a warm or a hot one. The devices can tell the difference between fingers, styluses, pinpoints, or broad surfaces such as cups or books; the weight of those objects; a full cup versus an empty one, a massive textbook versus a slight magazine. On a keyboard a key is either pressed, or it is not. A mouse is either moved, or it is not. With a multi-touch input, the quality of input becomes a vast array of possibilities, and the only

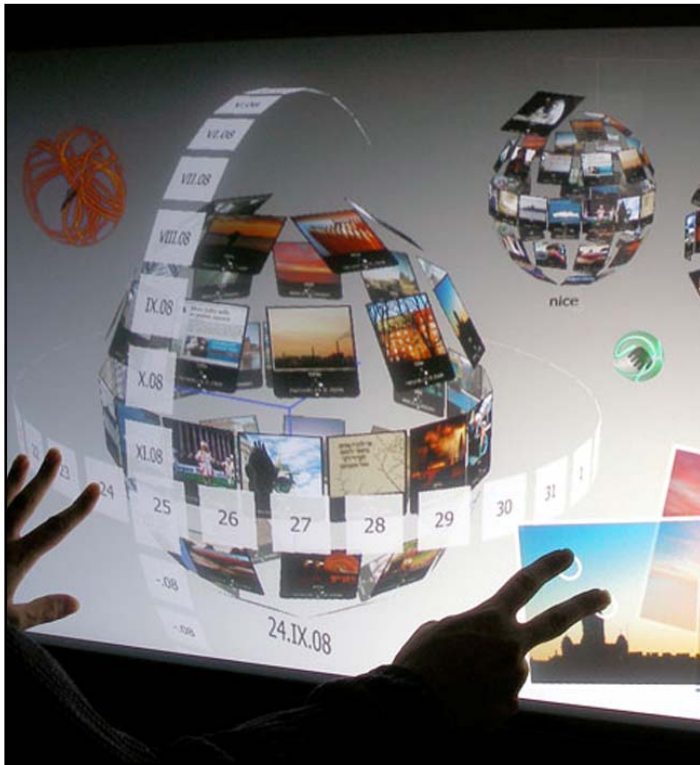


Figure 80: Object Manipulation, Citywall, Helsinki Finland

limitation is our ability to imagine different ways to make the machines respond to these inputs.

With the multi-touch interface, graphics on the computer display can be treated by the user as if they were physical objects, with software approximating mass and friction amongst the objects so that they behave naturally, allowing for completely intuitive designs that do not require menus or complicated commands. It does not exclude these, however. Any type of system which previously required mouse input easily converts to the multi-touch interface. However, for text input, a typewriter-like graphic is still summoned to allow the user to type in letters a “keystroke” at a time. As Jefferson Han at Perceptive Pixel points out, it is only a matter of time before text input evolves to better suit the paradigm shift.

Another element to the way multi-touch will change how we use computers is the idea of multiple users. A personal

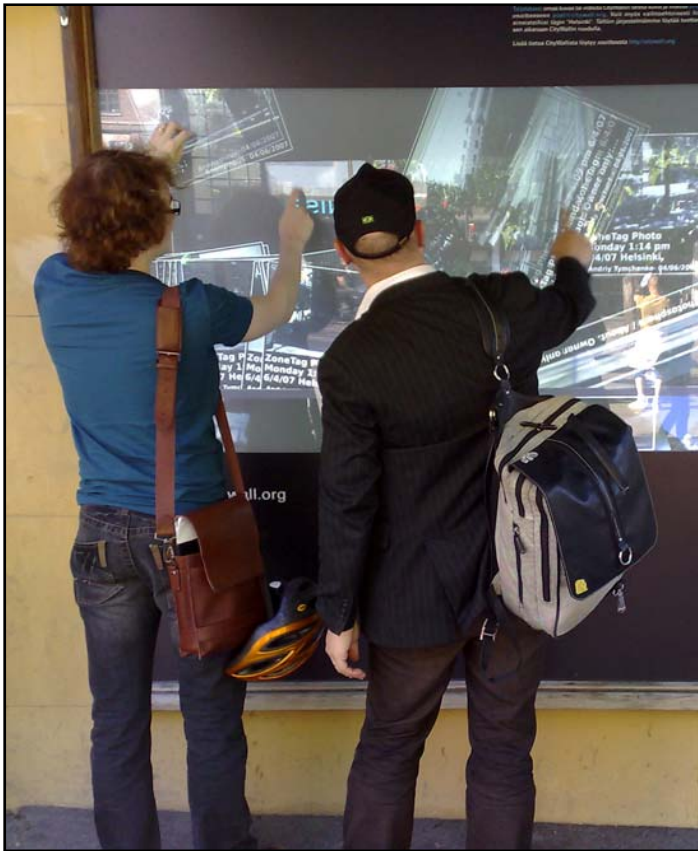


Figure 81: Citywall, Helsinki Finland

computer is designed to be used by one person. When two people attempt simultaneous use, the results are awkward and frustrating. With a multi-touch interface that allows for a practically limitless number of inputs, the number of simultaneous users for the interface is limited only by the physical size of the device and space around it. As long as the shape of the device – and therefore the architecture of the work space – allows for it and the computational power of the computer can meet the demands, teams collaborating on a project can all work on the same machine, allowing for perfect synchronization of their work.

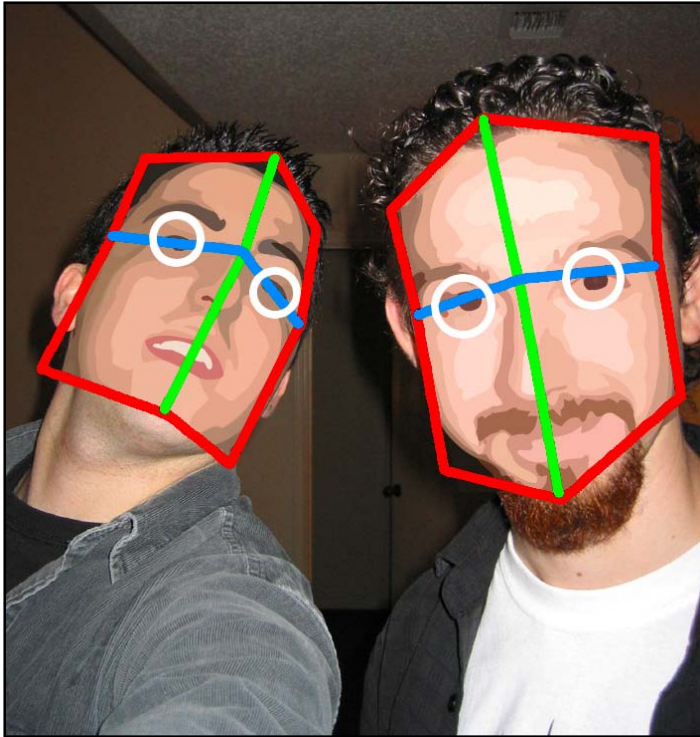


Figure 82: Head Tracking

Input - Passive

The multi-touch interfaces become truly powerful when combined with passive input systems that reach far beyond the user's immediate commands and into the way the interface tailors itself to the individual. Because the interface itself is the display, there are no mechanical parts to adjust, so the design of everything can be adjusted on the fly based on trends in the user's activities.

Specifically, head tracking is a technique that allows the computer to, at its most basic form, understand where the user's eyes are. While the idea itself is extremely basic – set up a camera with software that can identify the human face – the possibilities behind this are complex.

With a large multitouch interface, many users could be interacting with the same computer at the same time. Head tracking would allow the computer to understand how many



Figure 83: Depth Illusion in Head Tracking

users it has, where they are, and where their focus is placed. Suddenly a sea of input data becomes specific user experiences, tailored to each specific user.

An additional benefit to head tracking is through simulated perspective in a three dimensional virtual environment. The position of onscreen elements can be adjusted to various degrees to create the illusion of depth, allowing these types of interfaces to be much more meaningful, and the simulation of on-screen elements as physical objects much more convincing. In action, the results are entirely believable, though it breaks down if an observer is present, as they would only be able to see the simulated perspective from the point of view of the primary user.

The system grows in complexity if the computer is programmed to understand facial expressions. Prototypical examples of this are already in use at help desks where an artificial intelligence

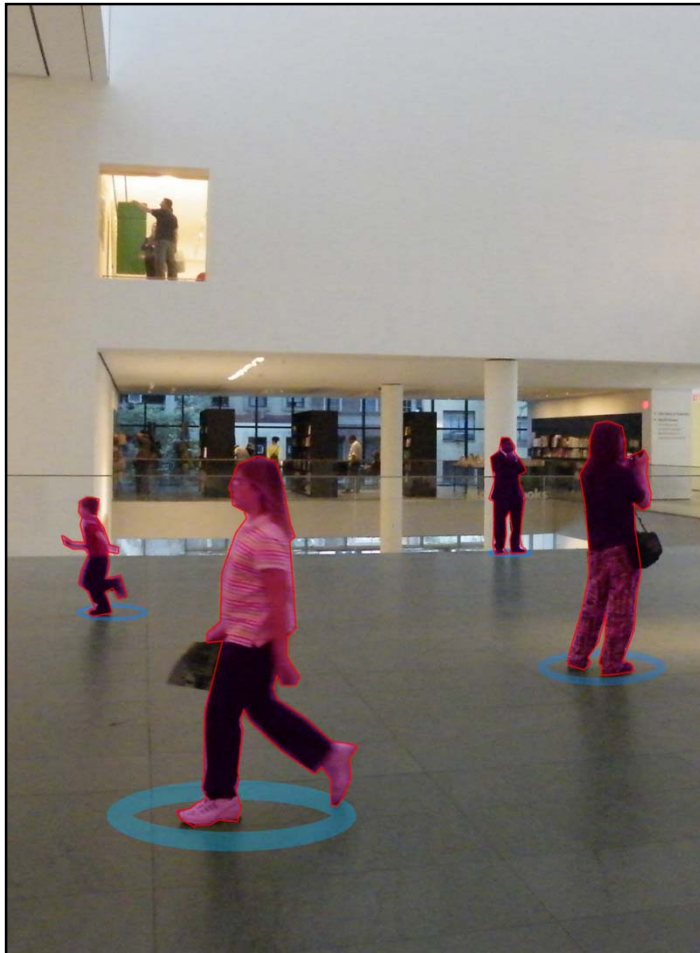


Figure 84: Body Awareness

can interpret the moods of those approaching and have the animated character on the display react accordingly. The ability of software to recognize individual identities from facial recognition is lagging behind, however.

Passive input taken a step farther results in body awareness. When integrated into architecture, this technique has less to do with a computer's user interface and more to do with a computer's understanding of where people are in the building. With this data, the computer could potentially create extremely efficient environmental control that adjusts on the fly to inhabitant activity – or even the direction of the sun's rays. It could also be a valuable aid in the case of an emergency. The walls of private offices could become clear or opaque based on occupation; the same could be done with restrooms.



Figure 85: Wireless Interaction

Input – Multiple Devices

Multi-touch need not be limited to multiple users on a single machine. It could also involve multiple machines or devices. Wireless technology has reached a point in our everyday lives where it is not only reliable, but taken for granted. Any potential new user interface must incorporate it as naturally as multi-touch can allow.

The multi-touch coffee table, Microsoft's Surface, is a good example of this. All one must do is place a wireless device on the table top – in this case using Microsoft's Bluetooth technology – and the interface immediately assimilates it. A menu opens up surrounding the device with configuration options. Data such as photographs can spill out from a camera across the table's surface. The contents of a Blackberry expand to fill the entire interface.



Figure 86: Multi-touch Object Interaction

Amusingly, physical objects other than wireless devices can interact with Microsoft's table, though the results are more playful than productive. If a hot coffee cup is placed on the surface (it is a coffee table, after all) animations expand around it based on its weight and temperature. It would warn us when our drink is getting cold. Children's building blocks can be placed on the table with simple games that respond to the size and shape of the blocks. Systems identical to these examples already exist in bars, such as the iBar in Las Vegas, and many arcades in Japan.

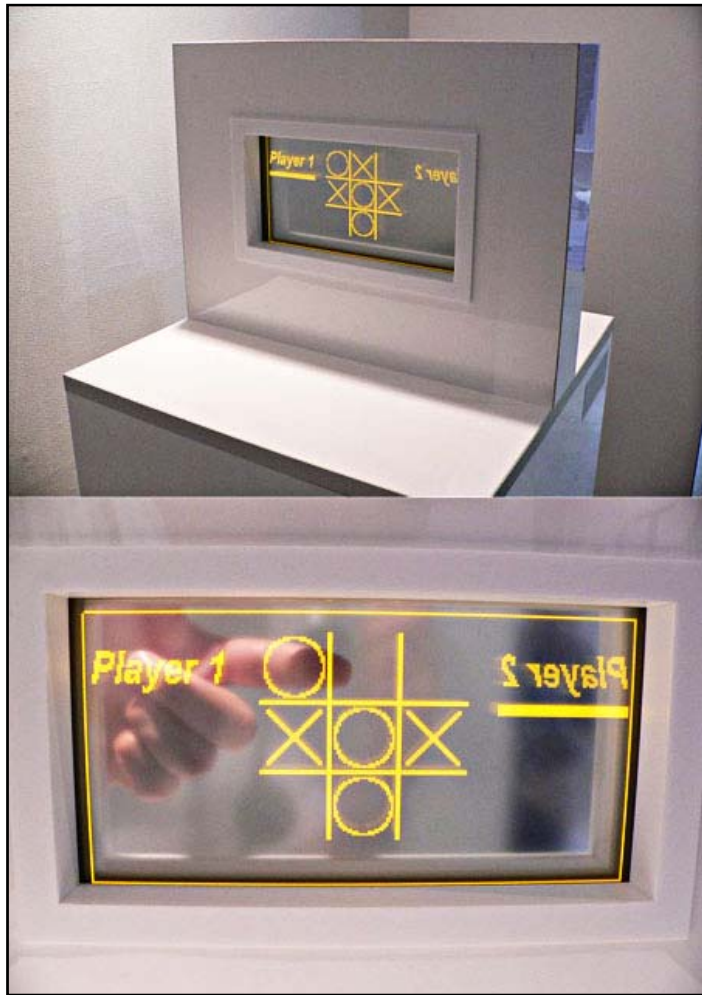


Figure 87: Present Day Double Sided Touch Screen Interface (Otani)

Input and Output as One

Both of these emergent technologies are in their infancy. The multi-touch display is sufficiently advanced and has already seen broad application in the past years. The OLED is much farther behind, and has the most room to grow. However, neither of these two ideas will have come to their full potential until they are combined. It is not a question of if, but of when. The multi-touch display allows for a natural and invisible human/computer interaction, and the OLED allows for a natural and invisible integration of computer and the build environment. The successes and advances of one will drive the other, as they naturally complement one another.

Combined, a situation develops where a wall becomes transparent when a sensor detects a pair of eyes focused upon it. It responds to the proximity of a human being by immediately manifesting tools on its surface. Fingertips can glide across the surface – or even hover above without

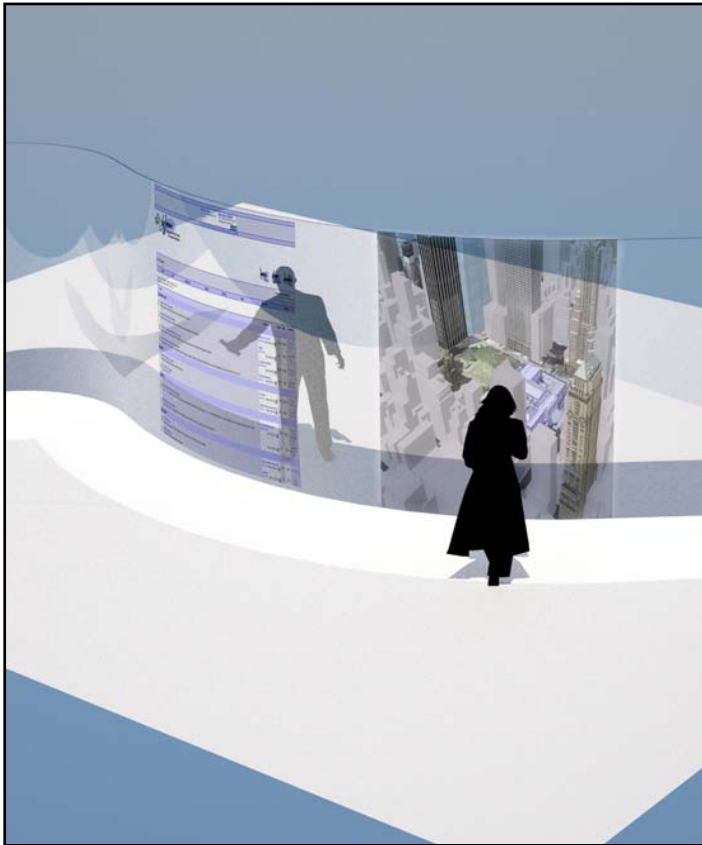


Figure 88: Near-Future Multi-touch OLED Interface

touching – to issue commands. Then, the person walks away and the display resumes being simply a wall. This person sits at their desk, which is simply a place where the wall is distorted to become a plane comfortable to rest one’s hands upon, and the display once again springs to life. We communicate, create, and are entertained through this surface that is at once a part of the architecture and a complex piece of multifunctional technology. The person gets up, and all that remains is the form.

As an aside, taken in the other direction, one could conceive of a future where the OLED displays are built into eyeglasses (or something even more intrusive) and controlled either by eye movements themselves, or through some small and subtle bridge interface.



Figure 89: Off-site Computing Warehouse

Cloud Computing

The idea of cloud computing is not new, but as bandwidth increases it has become more and more feasible. Cloud computing is simply software applications as a service rather than a product.

For example, in the traditional system, when one wants a word processor, one would go to the store and buy a boxed piece of software, install it, run the application from their hard drives (which eats up valuable space which could go to data) and then save their work to the same hard drive.

With cloud computing, no product is purchased. One connects to the internet, logs into a website devoted to that service, (maybe for a fee) and then uses the tools available to do the work they need to do. The personal computer's processor does not handle the workload of the application. The application itself is not stored on the user's hard drive (allowing that

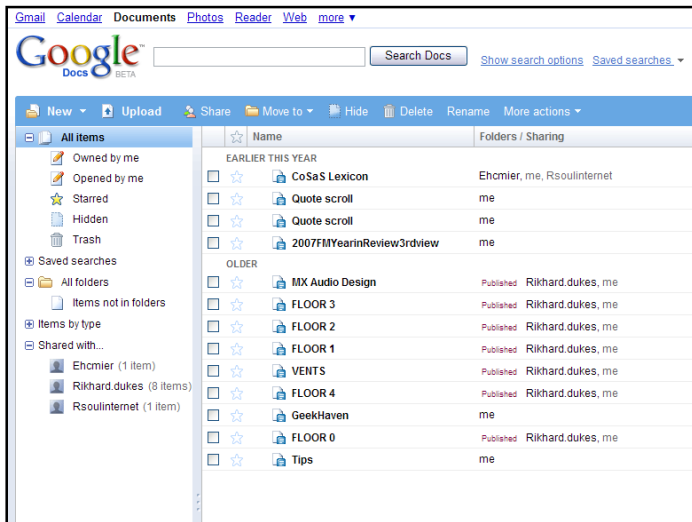


Figure 90: Cloud Computing Example - Google Docs

valuable space to be free for data) and if the user so desires, even their work can be kept on the remote server hosted by the company offering the service. In the end, the personal computer is then free to focus on the input and output experience, and the heavy lifting of the software application is handled by a powerful machine in a climate controlled warehouse far, far away.

Thus, with cloud computing, it allows the design of computers as architecture to focus on the input/output experience of the machine's use, and frees the designer – and the owner – from the issue of providing climate-controlled space for the powerful, and expensive, machines to run the software. All that is required is a robust connection to the internet and a great deal of bandwidth.



Figure 91: Noise Cancellation Earpiece - Jawbone

Noise Cancellation

Artificial silence could be conceived of as a simultaneous passive input and output system. In simple terms, microphones “listen” for noise. Software interprets the waveform, and creates an inversion of that waveform. The inverted waveform is sent to speakers, and if the volume is matched, the two sounds cancel each other out. More complex versions of the software can even distinguish one sound from another, so that everything but human voice is eliminated – or only human voice is eliminated. In everyday situations, the benefits of a noise cancellation ‘curtain’ are welcome. In a library setting, they are revolutionary. Children’s areas would not need to be sealed into soundproof boxes, but open area, with all of the uproarious clamor on the inside of the invisible curtain, and blissful silence on the other. Groups working in study rooms would no longer need to monitor their voices, and private business meetings would not need to fear eavesdroppers.

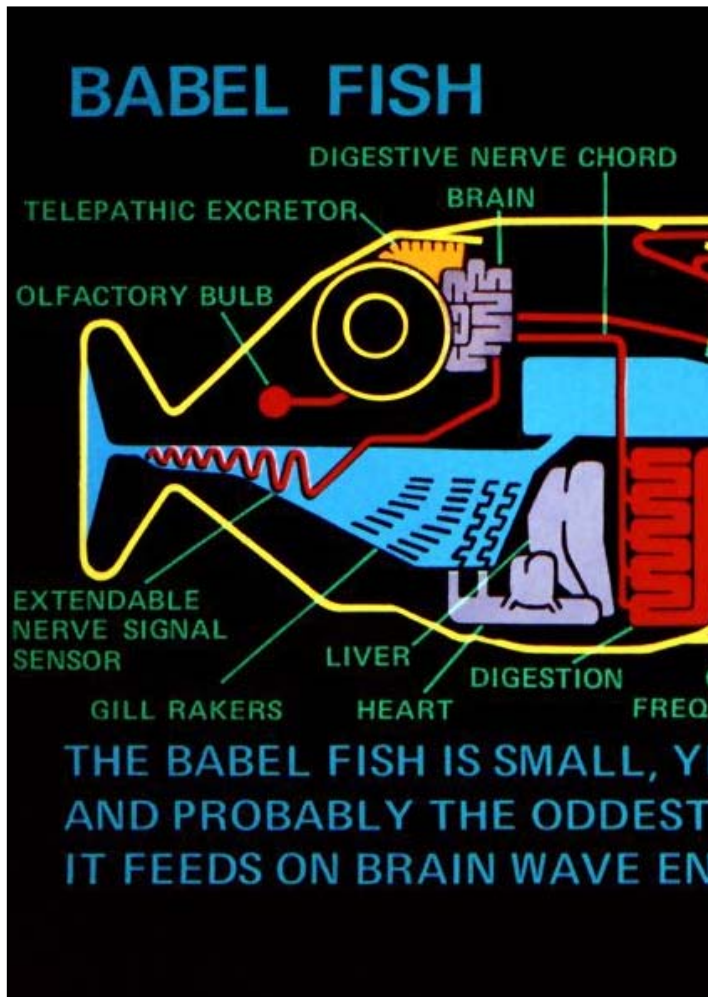


Figure 92: Science Fiction Translation Device - Babel Fish from The Hitchhiker's Guide to the Galaxy

Human to Human Input

Computers can also aid in communication between human beings. Presently, several distinct technologies exist which can be brought together to allow people who do not speak one another's language to have a conversation. Speech recognition can pick up what the speaker is saying, maybe with the help of a microphone-earpiece. The speech, converted to text, is sent to a translation server which converts message into the language of the other user. Finally, with a phonetic engine, the text is converted back into speech, and played back in the listener's own microphone-earpiece. Though all of these technologies are far from perfect at the present time, they are advancing, and it is only a matter of time before this can become a reliable system. In a library, especially one located in New York City, this could be an extremely useful tool, and a tremendous draw.

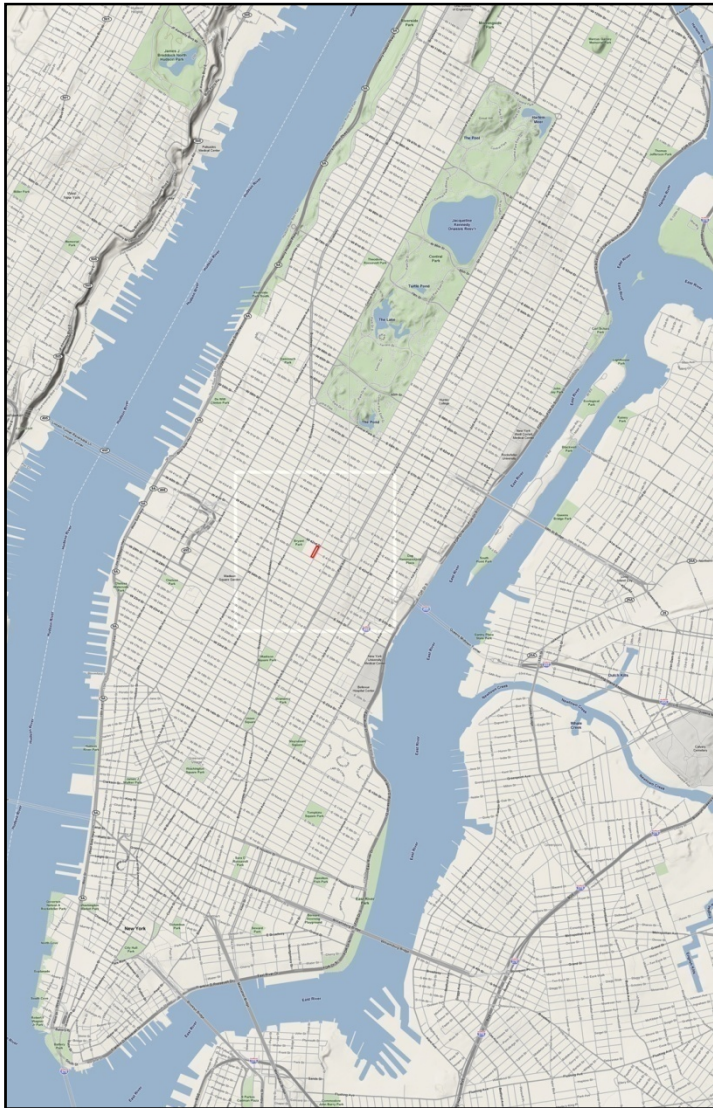


Figure 93: Midtown Manhattan

SITE ANALYSIS

The site is located at the northern corner (considered northwest corner) of the intersection of 5th Avenue and 40th street in Midtown Manhattan. (Figure 14) There is no existing lot for this site, but is an intervention onto the lot of the Humanities and Social Sciences Library of New York City, formerly known as the Astor Library, completed in 1903.

Extensive analysis of the Humanities Library and accompanying Mid-Manhattan Library and South Court is present in case study 4.

The street grid is shifted from the cardinal poles by approximately 33 degrees, though 5th Avenue is considered to run north-south.

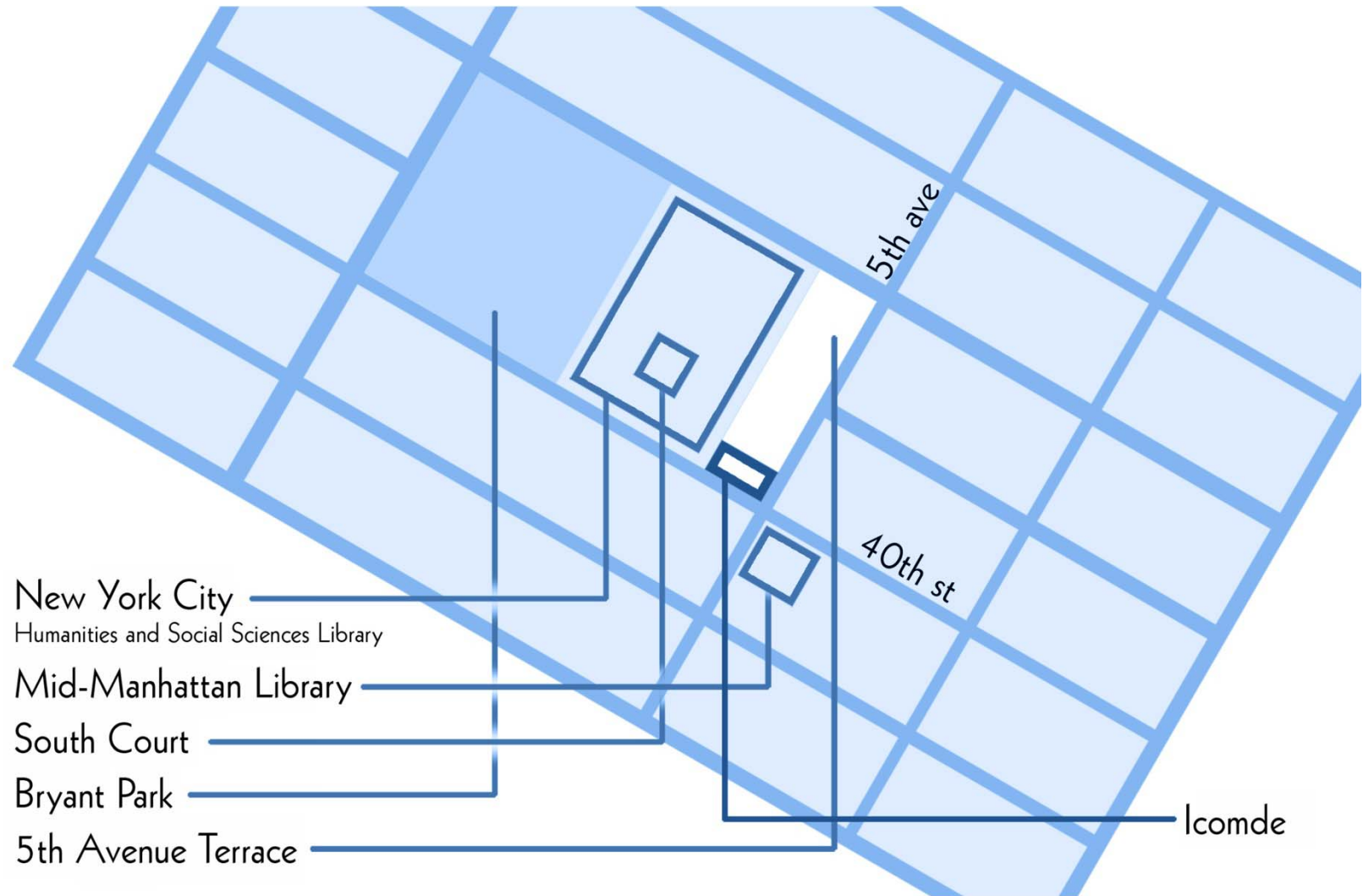


Figure 94: Bryant Park Area Diagram



Figure 95: Bryant Park Area Aerial

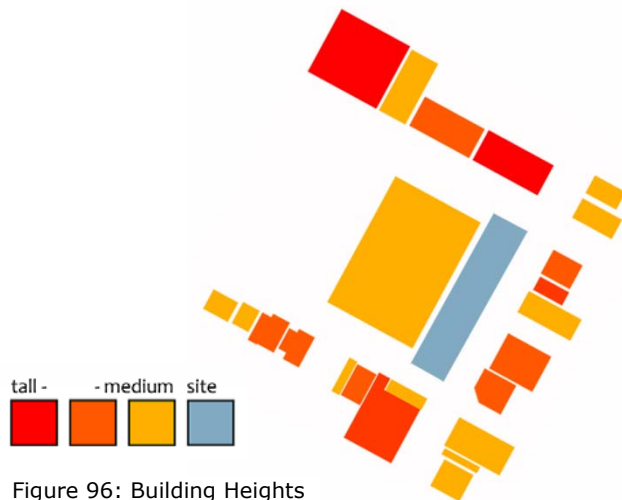


Figure 96: Building Heights

Nearby areas of importance include Rockefeller Center to the north, Times Square to the west, Madison Square Garden to the southwest, Grand Central Station to the west, Central Park to the distant north, and Downtown Manhattan to the distant south.

The Humanities Library and Bryant Park represent a break from the norm in the city fabric, a basin where an icon sits surrounded by towering structures many times its height (Figure 17), but still manages to dominate them all. Bryant Park is one of the largest parks in New York City (though it is still minute compared to Central Park, which could engulf several other large cities whole). Human activity density peaks directly in front and behind the Humanities Library, as well as the far end of Bryant Park centralized around a great fountain. The northern edge of The Humanities Library is more populous than the south, due to the secondary entrance to the Library as well as a major subway gate at the corner of 5th Avenue and

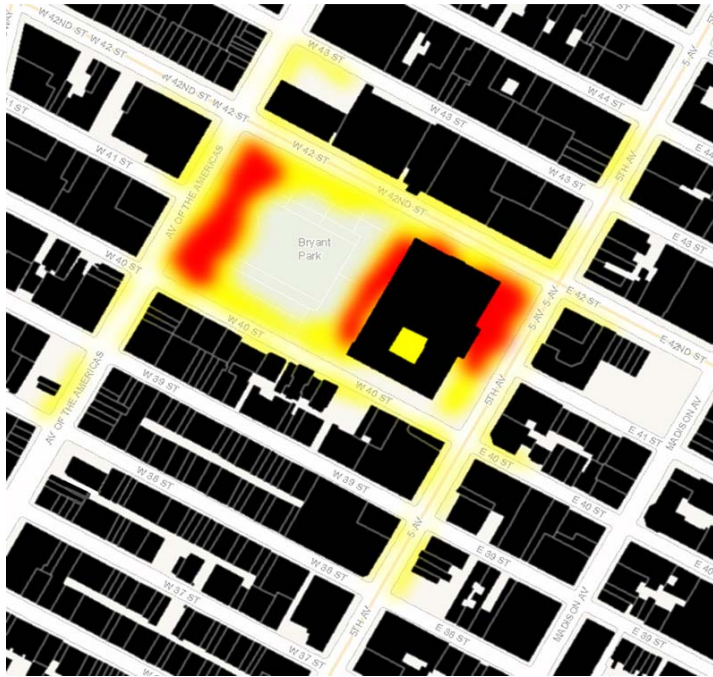


Figure 97: Figure Ground and Population Density

42nd street. New York City has many parks, but lacks green cover throughout most of the streets. The 5th Avenue edge of the Humanities Library is one exception to this, with many large trees providing shade to the surrounding street edge. The proposed location for Icomde would dislocate some of these trees.

The area is immensely dense; one of the densest locations in the United States. Density in midtown Manhattan is relatively homogeneous, and continues to be so north until far beyond the edge of Central Park to Uptown where it gradually lessens, and to the south where density increases dramatically in downtown. Figure 97 illustrates this density with both figure-ground and activity (shown in red).

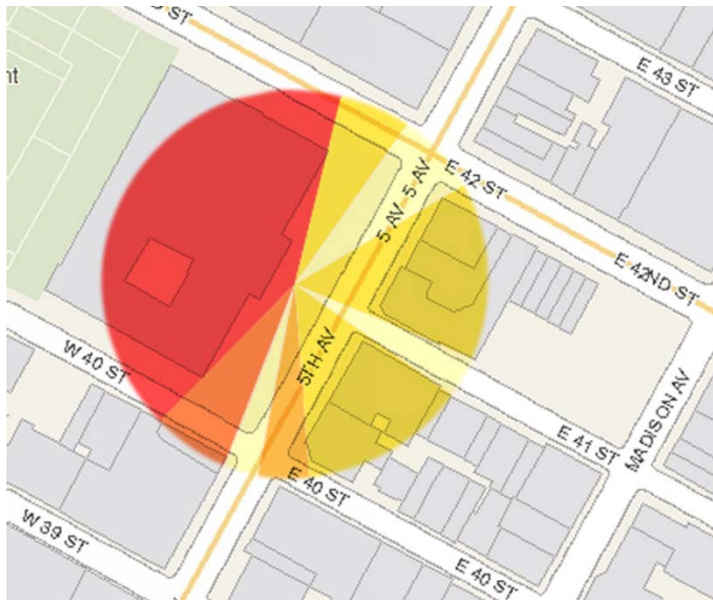


Figure 98: Views

Figure 98 illustrated indicate a hierarchy of views as well as sight lines. The Humanities Library, the red slice, is the most compelling element, visually, at the location, both due to its dramatic presentation and proximity. The nearby Knox Building, the dark orange slice, is noteworthy due to its unusual appearance, contrasting both the Humanities Library and the surrounding cityscape. A towering structure to the north reminds the viewer both of the Empire State Building, of which this is a predecessor by the same architect, and the Rockefeller center to the north, which shares its design vocabulary. The Mid-Manhattan Library to the south stands out due to its small size among giants; it's closer relative nature to the human scale makes it much more accessible to the eye.

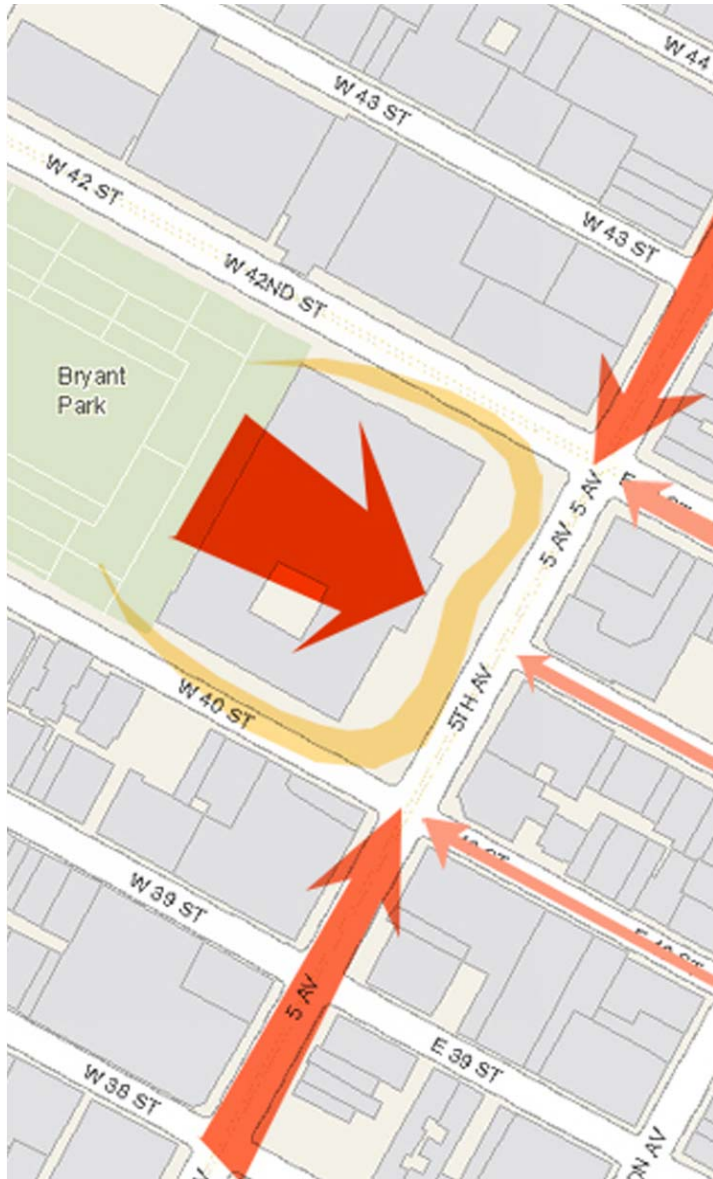
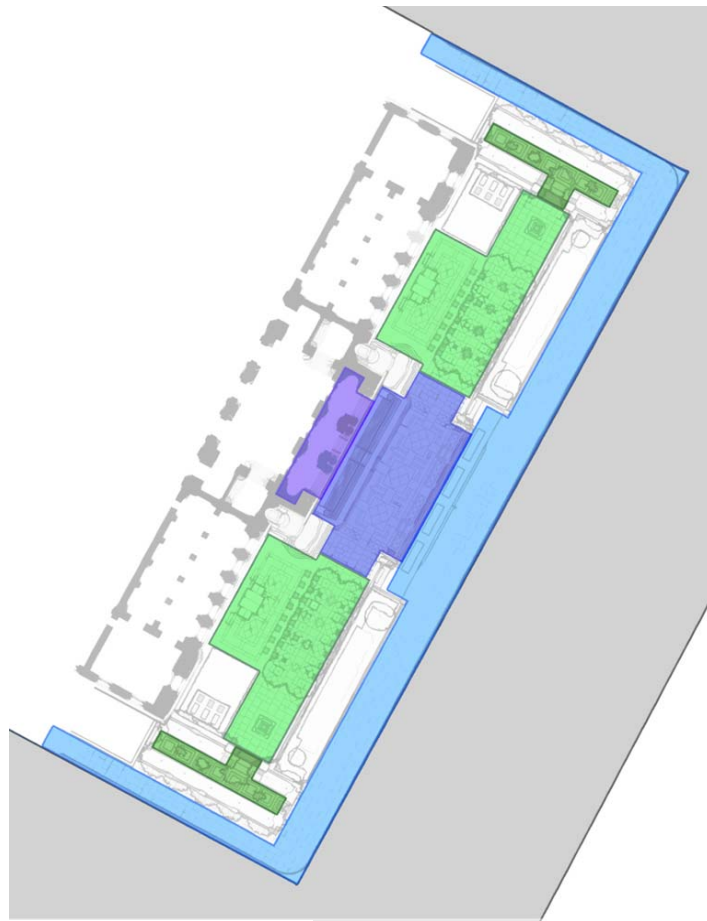


Figure 99: Forces Diagram

The 'forces diagram' (Figure 99) indicates the intangible elements which push and pull at the sight, and cannot be quantified by any one factor, but rather is a sum of the whole.

5th Avenue is a major driving force, with the push and pull of traffic, vehicular and pedestrian, creating a constant turbulence.

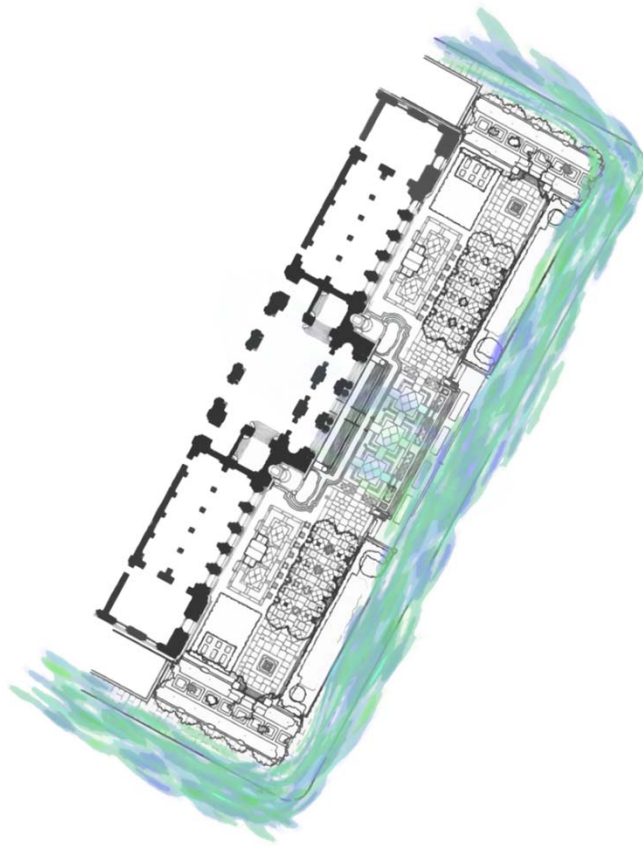
The magnitude of the Humanities Library easily overpowers this however, and creates a substantial edge which must be heeded beyond all other factors. The proximity of such centers as Times Square and Rockefeller Center are rendered nearly inconsequential due to the immediacy and grandeur of the Beaux Arts building.



- Street Edge
- Central Terrace
- Library Entry
- North/South Wings
- North/South Courts

Figure 100: Terrace Organization

The terrace itself can be broken up into several zones (Figure 100). The street edge wraps around all sides and connects to the terrace at three points. The central terrace makes up the main path to the Humanities Library, and is flanked by the north and south wings. At the far north and south are additional courts, separated from the main by a set of stairs, but connected directly to the street edge.



The highest amount of motion (Figure 101) occurs at the street edge, where heavy traffic dominates the road and pedestrians walk quickly along the wide sidewalk. Comparatively speaking, the activity on the terrace itself is still.



Figure 101: Pedestrian Movement

The central portion of the terrace, lined with steps and flanked by lions, fountains, and stone vases, is the most highly populated (Figure 102). Most choose to sit on the steps in direct sunlight than seek the shade of the nearby trees and the chairs provided there.

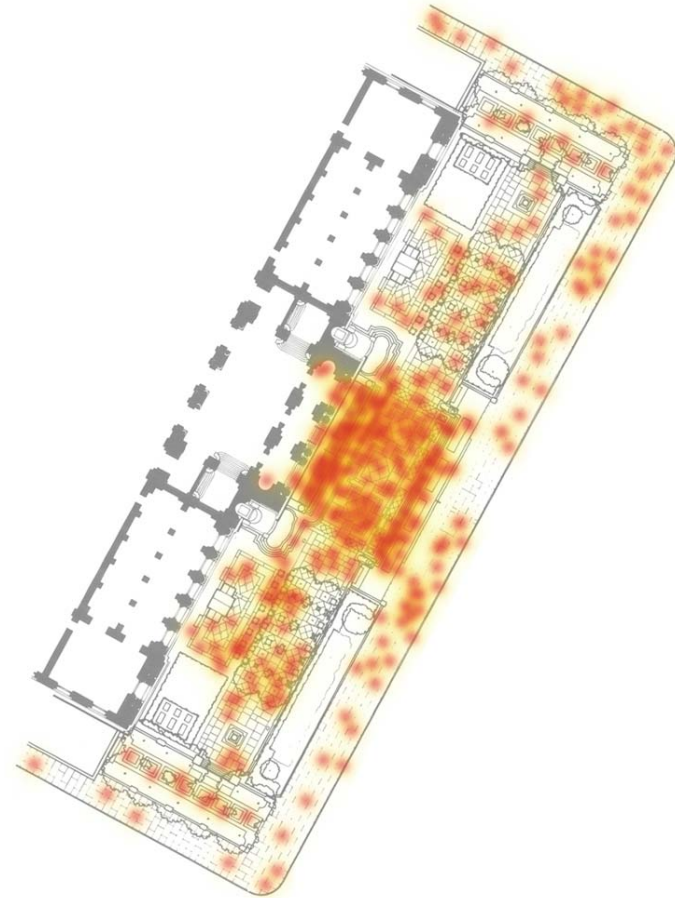


Figure 102: Stationary Population Density

Circulation (Figure 103) is primarily from the street to the central court, directed to the Humanities Library interior. The north and south wings of the main court can be crossed to reach the north and south platforms.

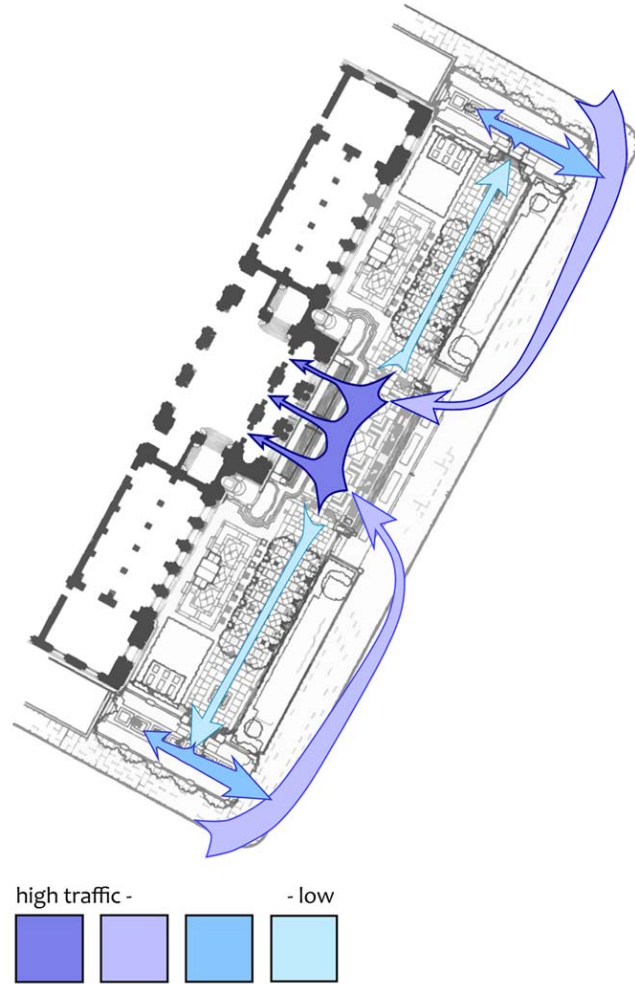


Figure 103: Circulation

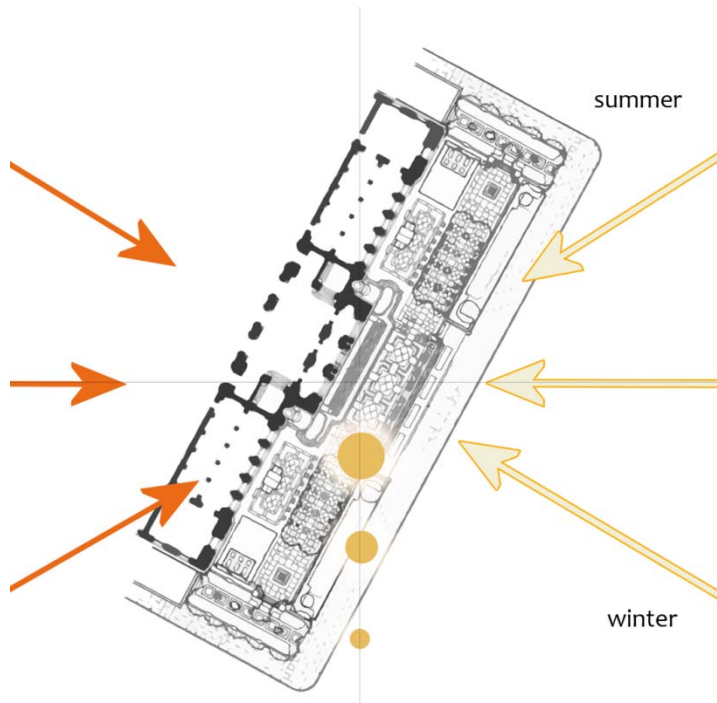
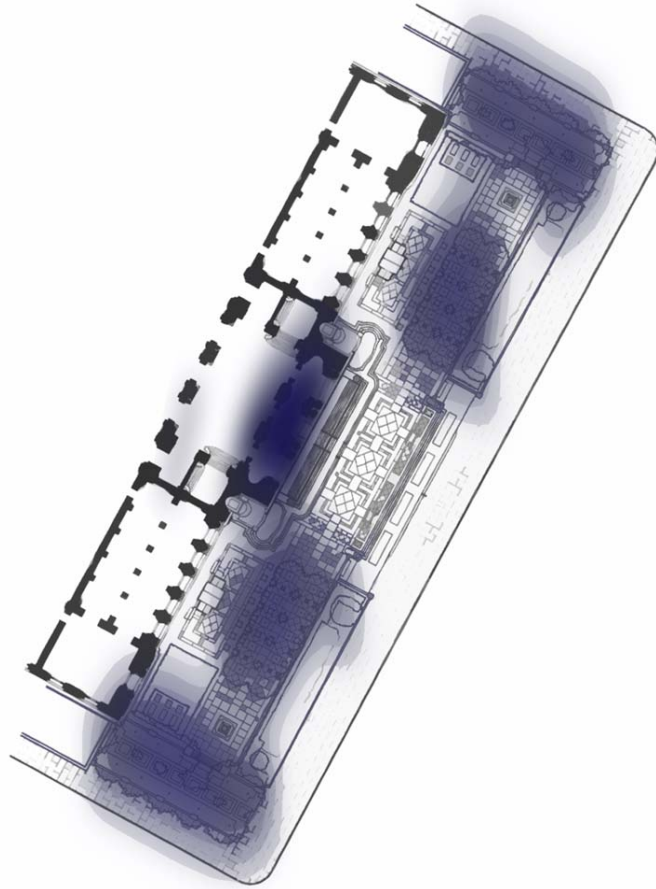


Figure 104: Solar Angles

The orientation of the site bathes it in full morning sun at all times of the year (Figure 104), through the towers to the east will cast long shadows across it. In the evening the bulk of the Humanities Library blocks out all direct sunlight.



During midday, shade is provided by many trees and the covered entryway of the Humanities Library (Figure 105). However, due to the climate most visitors choose to avoid the shade in favor of direct sunlight throughout the year.

Figure 105: Shade



Figure 106: Icomde Logo

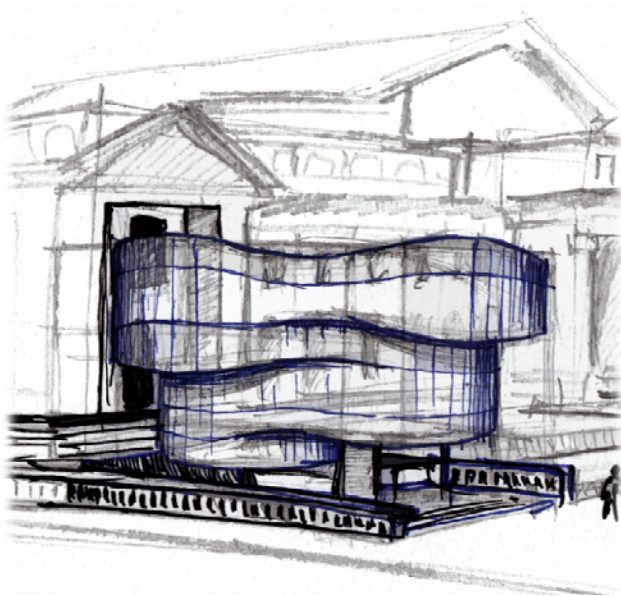


Figure 107: Early Concept: Icomde

PROGRAM

Turning Point

Icomde represents a crossroads between information access and propagation, human - computer interface, and computer - architectural integration. It is not simply an evolutionary offshoot of the library, but a turning point in the way human beings, their buildings, and their information technology is integrated.

Prototype

This is a prototype for a new breed of institution that is not based in a specific place or time, but an epoch. This evolution of the library would coexist side by side with its iterations from previous eras or stand alone, starting in major international hubs and propagating to other large cities, before finally becoming commonplace in any small town.

Midtown Manhattan, New York City: 2020

The selected site is the northern corner of the intersection at 5th Avenue and 40th street; on the south terrace of the monumental beaux-arts New York City Humanities and Sociology Library, considered to be one of the most important libraries in the world, directly opposite the contemporary Mid-Manhattan Library. The existence of these two important buildings, plus the South Court, an addition to the Humanities Library which integrates modern technology and design sensibilities into the old building, creates an information and cultural nexus.

Nexus

It is important that the first Icomde be placed among information centers of previous eras, and not isolated from them. It declares that this is something new and different, and is not hiding from the past nor is it trying to overwrite it. The three very different institutions will coexist and allow each to be as unique as they need to be without overlap of functions. The Humanities Library is a cathedral to knowledge. The Mid-Manhattan library is a warehouse for the storage of information. Neither of these functions will be attempted by the Icomde. It will allow the Icomde to focus on what is new and different rather than attempting to fulfill niche expectations.



Figure 108: Multi-Touch

Technology

Multi-touch is a human/computer interaction technique and the hardware devices that implement it, which allow users to interact with the machine using multiple simultaneous touch points. It also allows for a potentially unlimited number of simultaneous users at one machine. There are numerous methods for detection of these touch points, the most common of which is relative finger pressure.

Body Awareness uses a variety of sensor and detection methods with computer software that can apply data on occupant location and activity to provided a variety of functions, including reactive environmental control, the ability to distinguish between users in close proximity, computing experiences better tailored to heavy or light traffic, or to aid in the management of an emergency.

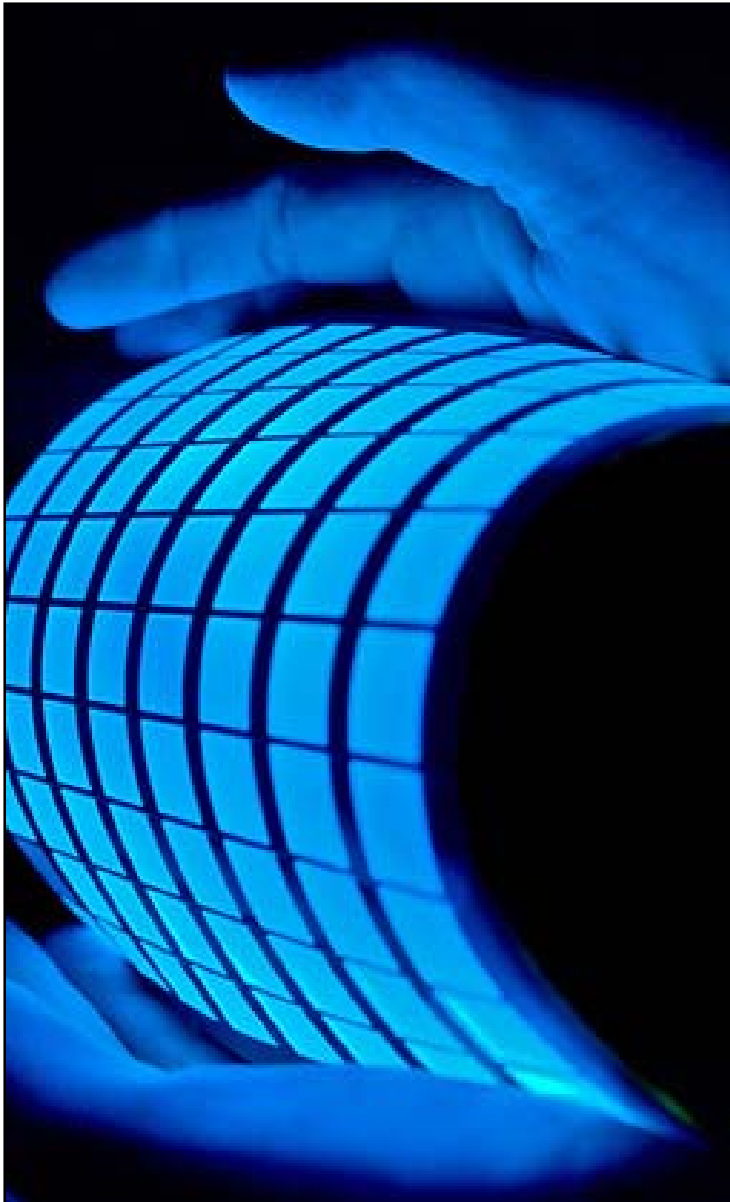


Figure 109: Organic Light-Emitting Diodes

Head Tracking uses video input of the human face for application use, such as the creation of natural perspective in a three dimensional scene, interaction with an artificial intelligence, or personal identification.

OLED displays employ organic light-emitting diodes, which are light-emitting diodes (LED) whose emissive electroluminescent layer is composed of a film of organic compounds. Development of OLED technology is leading in the direction of very thin, completely flexible, highly transparent electronic display materials that can be made into any shape or form.

Noise Cancellation is a process that involves a microphone, software, and a speaker. Waveforms are picked up by the microphone, the software interprets them, and sends an inversion of that waveform to the speaker. The speaker emits the new sound, and the two waveforms are canceled out.

Cloud Computing is a style of computing in which IT-related capabilities are provided “as a service”, allowing users to access technology-enabled applications from the Internet without knowledge of, expertise with, or control over the technology infrastructure that supports them. It puts a considerable amount of computing power at the user’s fingertips without needing the processing power to support it.

Wireless Data and Power transfer means that any building component that involves computer technology need not be tethered to any single location, and may roam freely. This allows furniture and partition walls outfitted with computer interfaces to have very flexible uses and configurations.

Personal Mobile Devices of any type or form should be able to interact with the technology present intuitively, invisibly, and automatically, whether it’s transferring one’s work from a mobile device to a work terminal and back again, viewing the display output on an OLED equipped eyeglass rather than on the interface itself, or quickly accessing a user’s customized settings.

It is the combination of these technologies which defines the human/computer/architecture relationship in the Icomde.

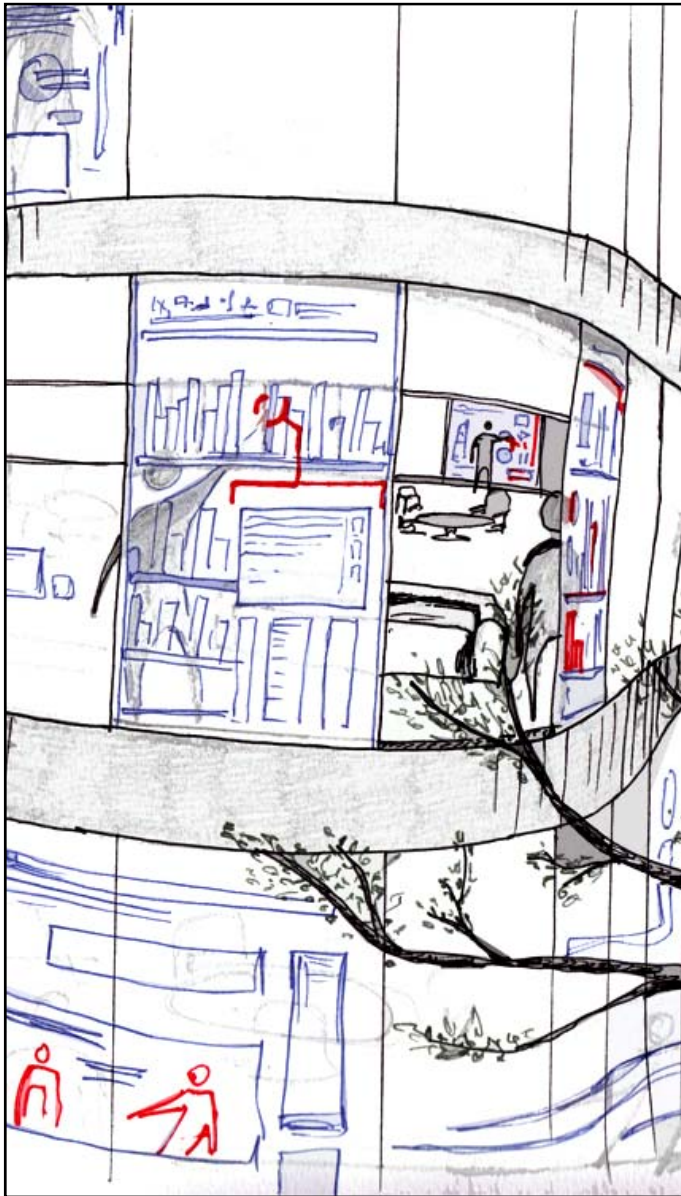


Figure 110: Early Concept: Cascade

Cascade

The cascade is the omnipurpose tool of the Icomde, an OLED computer display with multitouch technology through which all information interaction and creative pursuits take place. It will also feature wireless integration of function with personal mobile devices. It will be present in several variations, very similar in technological aspects, but differing in the way it is architecturally utilized.

Cascade Plaza. In this arrangement, the cascade exists as isolated features in an open air public plaza, and can be accessed and used by any casual passerby. It is distinct in that it is a completely stand-alone piece, neither connected visibly to the Icomde itself or to one another, but free-floating units. Most of the cascade plaza is situated on the 5th Avenue terrace of the Humanities Library, but much of it also exists on the street edge of 5th Avenue and 40th Street.

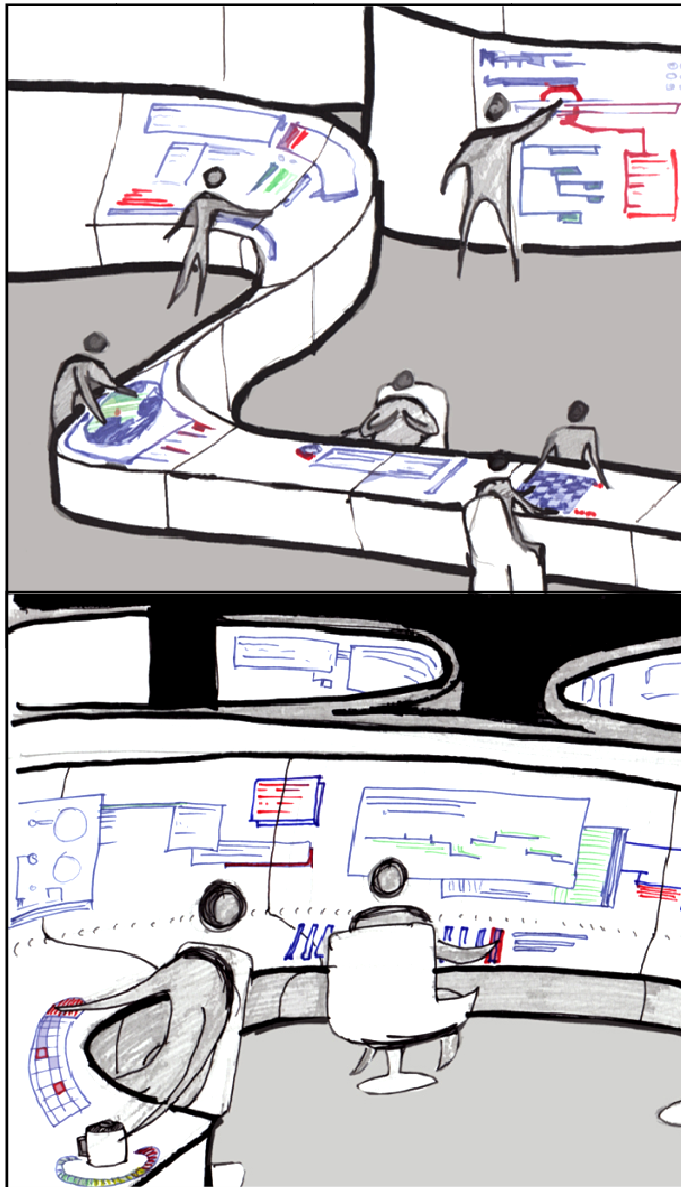


Figure 111: Early Concepts: Cascade Workflow & Team Pod

Cascade Workflow. In this arrangement, the cascade forms shapes similar to desks and tables to create situations comfortable for prolonged, focused activity by the users. Unlike tables and desks however, the Cascade-workflow would be one continuous piece, which separates itself from the wall and then either rejoins it at the opposite end, or changes to become part of the ceiling or floor.

Ether. This comes from the meaning of the word that hypothesizes a substance that fills all space, regardless of the observable emptiness. Because the cascade is essentially walls and transparent panels, ether is used to describe the floor space of areas between strips of the cascade. Ether is either completely open or filled with comfortable seating.

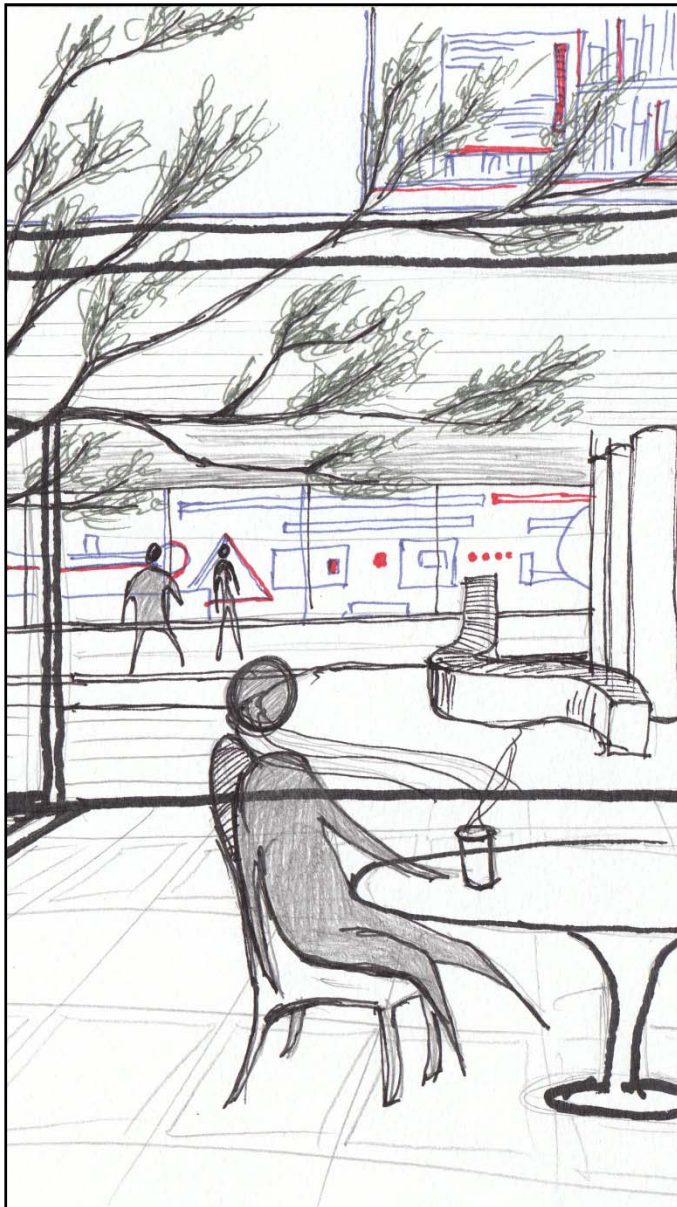


Figure 112: Early Concept: Cascade Terrace

Pods

In this arrangement, the cascade is separated into isolated ringlets to create private work areas for small groups. These chambers feature both privacy shrouds, which occurs when the OLED display becomes completely opaque, and noise cancelation.

Team Pods. Small chambers of various size designed for use by three to six people.

Studio Pods. Larger chambers designed for use by approximately a dozen people.

Edu Pods. Similar in size to studio pods, but with the work interfaces oriented inwards with an open center. In this configuration user's focus is on one another rather than

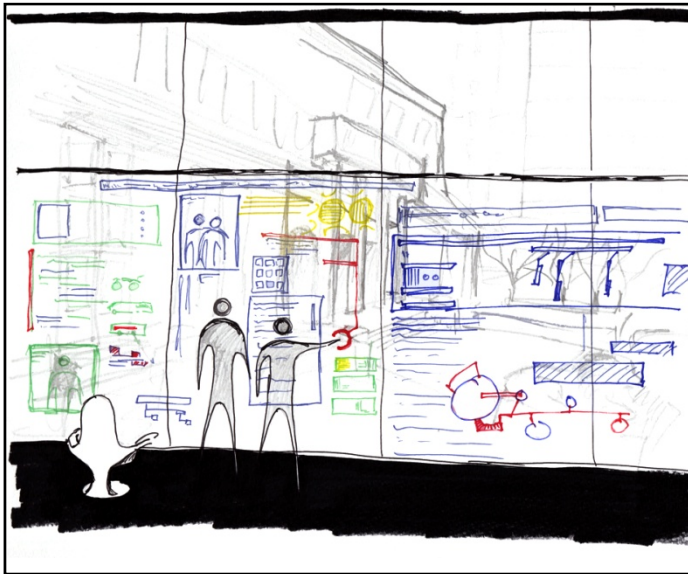


Figure 113: Early Concept: Cascade

simply their interface, with room for an instructor to interact with the entire group or individuals in turn.

Conference. Similar to the Edu Pods, but without the open center, for a fully egalitarian environment.

Other Features

Café A, B, C. Two locations will be offered that serve refreshments, one amidst the cascade terrace, dubbed Café C, and another on the sixth floor of the interior, dubbed Café A, B.

Gallery. A permanent exhibition hall for temporary exhibitions, either to be rented by the community for presentations or displays, or orchestrated by the staff of the icomde to present works created by its members. It is divided so that several exhibits may be displayed simultaneously and separately.

Children's Area. The play area will be heavily shielded with noise cancelation. Head tracking and body awareness will allow parents to keep tabs on their children from anywhere in the building, through the use of observation cameras. Additionally, animated characters "living" in the children's cascade panels could be controlled by parents anywhere in the building, allowing them to interact from afar.

Auditorium. Rows of seating are oriented towards a lectern and the twenty foot tall cascade wall behind it. The speaker at the lectern has control over this cascade wall from the interface on the lectern itself.



Figure 114: Early Concept: Cafe

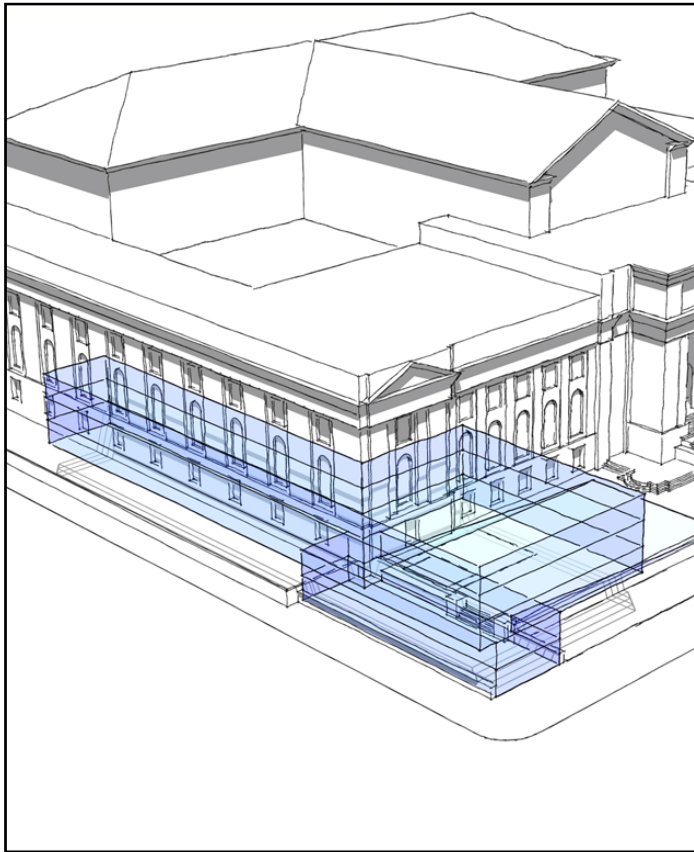


Figure 115: Early Concept: Organization

Organization

The First Icomde will consist of three components. The first, Cascade-Plaza, is already discussed above. The features of the ground floor will spill out into the main terrace of the Humanities Library, until breaking up into stand-alone units that are placed sporadically until the edge of the central terrace.

The core, which is centralized over the south-most court of the terrace, will be the hub of all Icomde activity. It will be narrow at the ground floor and above, but widen considerably towards both the street edges and the terrace as it goes upwards to a total of fifty feet. It will contain within all features of the Icomde, with the exception of the cascade-plaza.

The South Wing extends halfway down the Humanities Library's southwestern elevation. This space will not exist as distinct floors, but as an open span with spiraling catwalks that gradually make their way from floor to floor. These catwalks will be dominated by the cascade; a fully functional programmed circulation space.

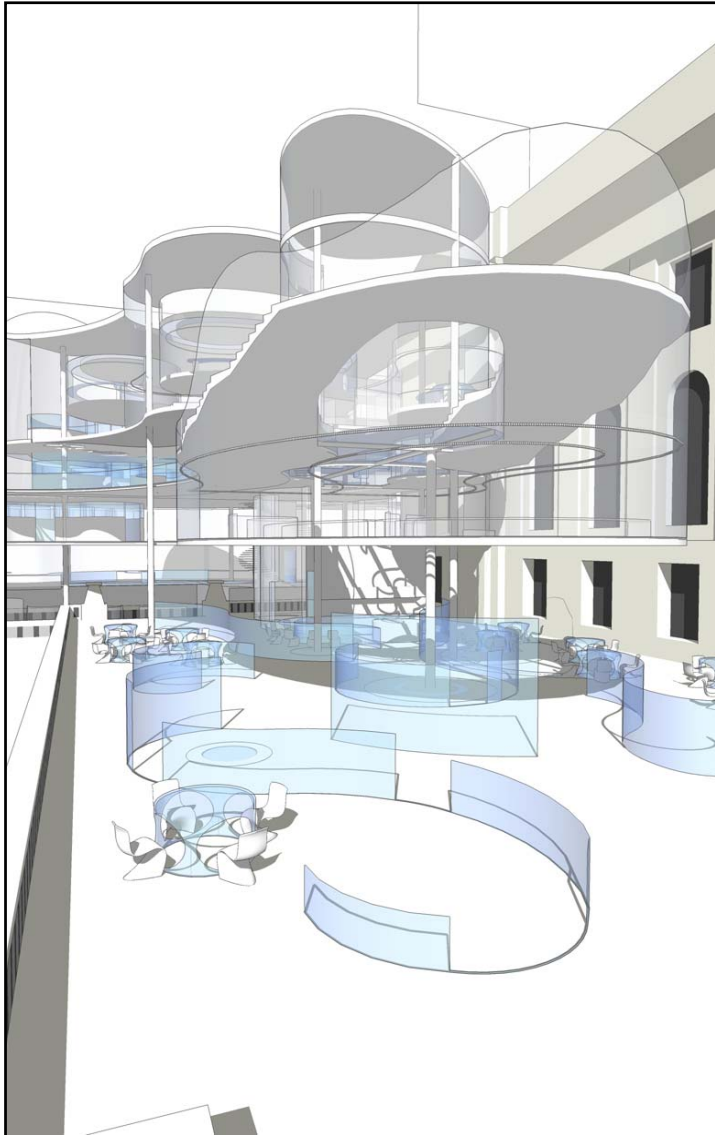


Figure 116: Cascade Plaza

Total Square Footage:	65327 sq.ft.
1st Floor & Street Edge Total:	8997 sq.ft.
Cascade Street Edge _____	6123 sq.ft.
South-most Terrace _____	1556 sq.ft.
South-most Terrace Interior _____	823 sq.ft.
Restrooms _____	183 sq.ft.
Circulation Core _____	312 sq.ft.
Second Floor and Terrace Total:	17069 sq.ft.
Cafe C _____	838 sq.ft.
Gallery _____	1736 sq.ft.
Reception _____	2665 sq.ft.
Edu-Pod _____	857 sq.ft.
Cascade Plaza _____	7361 sq.ft.
Cascade Workflow _____	1918 sq.ft.
Ether _____	1382 sq.ft.
Circulation Core _____	312 sq.ft.

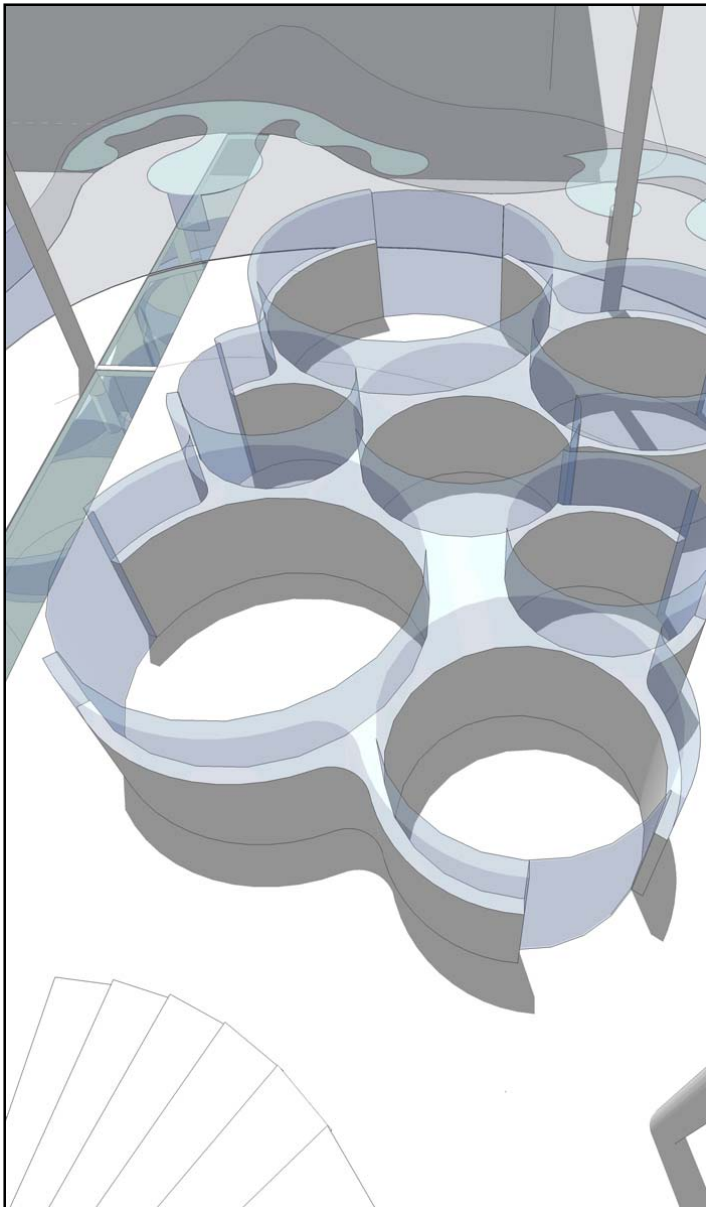


Figure 117: Team Pods

Third Floor Total: 10860 sq.ft.

Children's Area _____ 2809 sq.ft.

Beux Arts Edge _____ 718 sq.ft.

Team Pods _____ 838 sq.ft.

Ether _____ 6183 sq.ft.

Circulation Core _____ 312 sq.ft.

Fourth Floor Total: 12354 sq.ft.

Terrace Observation _____ 1282 sq.ft.

Open Air Workflow _____ 2246 sq.ft.

Cascade Workflow _____ 2235 sq.ft.

Team Pods _____ 700 sq.ft.

Ether _____ 5579 sq.ft.

Circulation Core _____ 312 sq.ft.

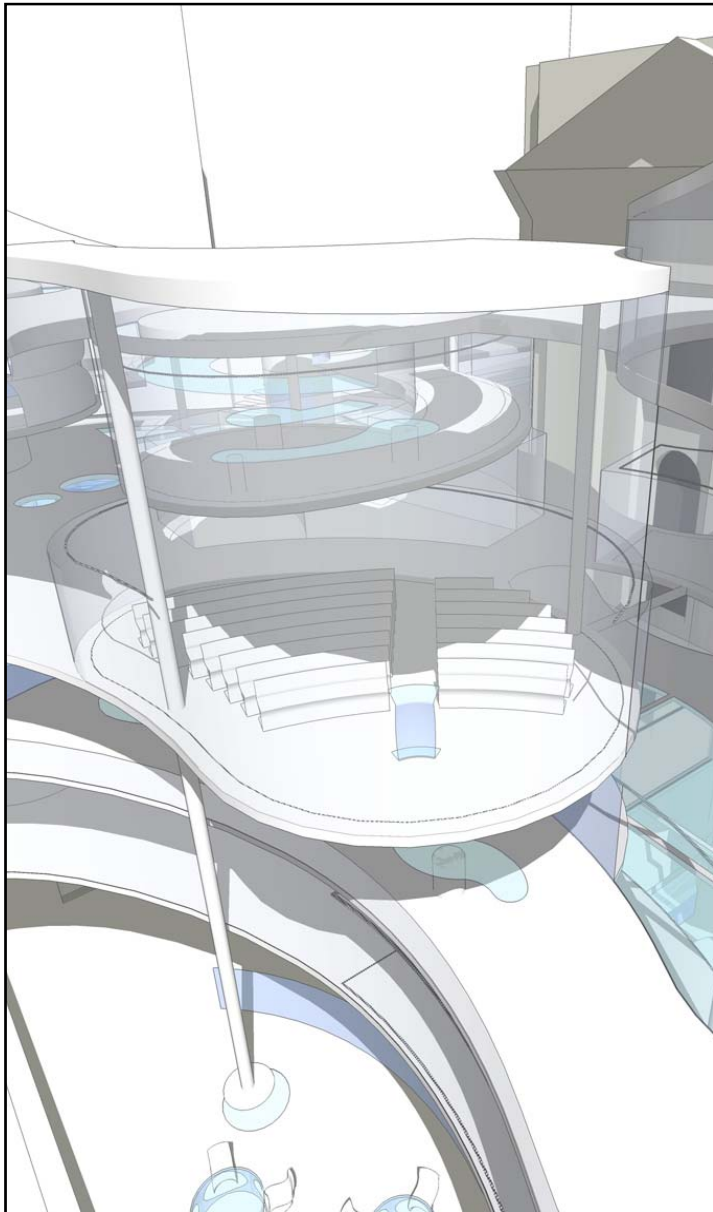


Figure 118: Auditorium

Fifth Floor Total: **11405 sq.ft.**

Conference _____ 565 sq.ft.

Auditorium _____ 893 sq.ft.

Staff Offices _____ 691 sq.ft.

Edu Pod _____ 597 sq.ft.

Studio Pods _____ 412 sq.ft.

Cascade Workflow _____ 1811 sq.ft.

Ether _____ 6124 sq.ft.

Circulation Core _____ 312 sq.ft.

Sixth Floor Total: **4642 sq.ft.**

Cafe A _____ 788 sq.ft.

Cafe B _____ 568 sq.ft.

Ether _____ 2857 sq.ft.

Restrooms _____ 117 sq.ft.

Circulation Core _____ 312 sq.ft.

FINAL SCHEMATIC DESIGN IMAGES

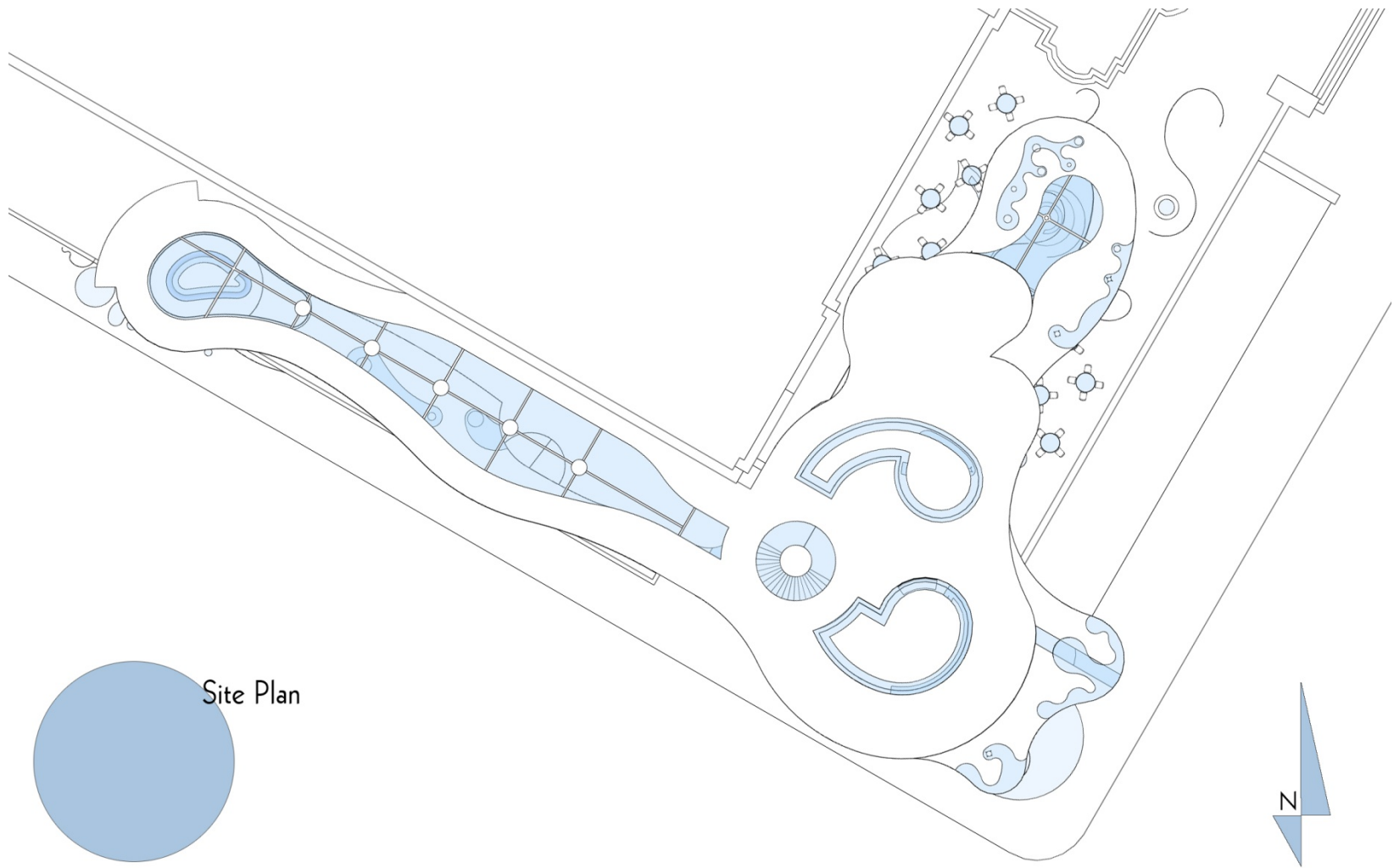


Figure 119: Plans - Site Plan

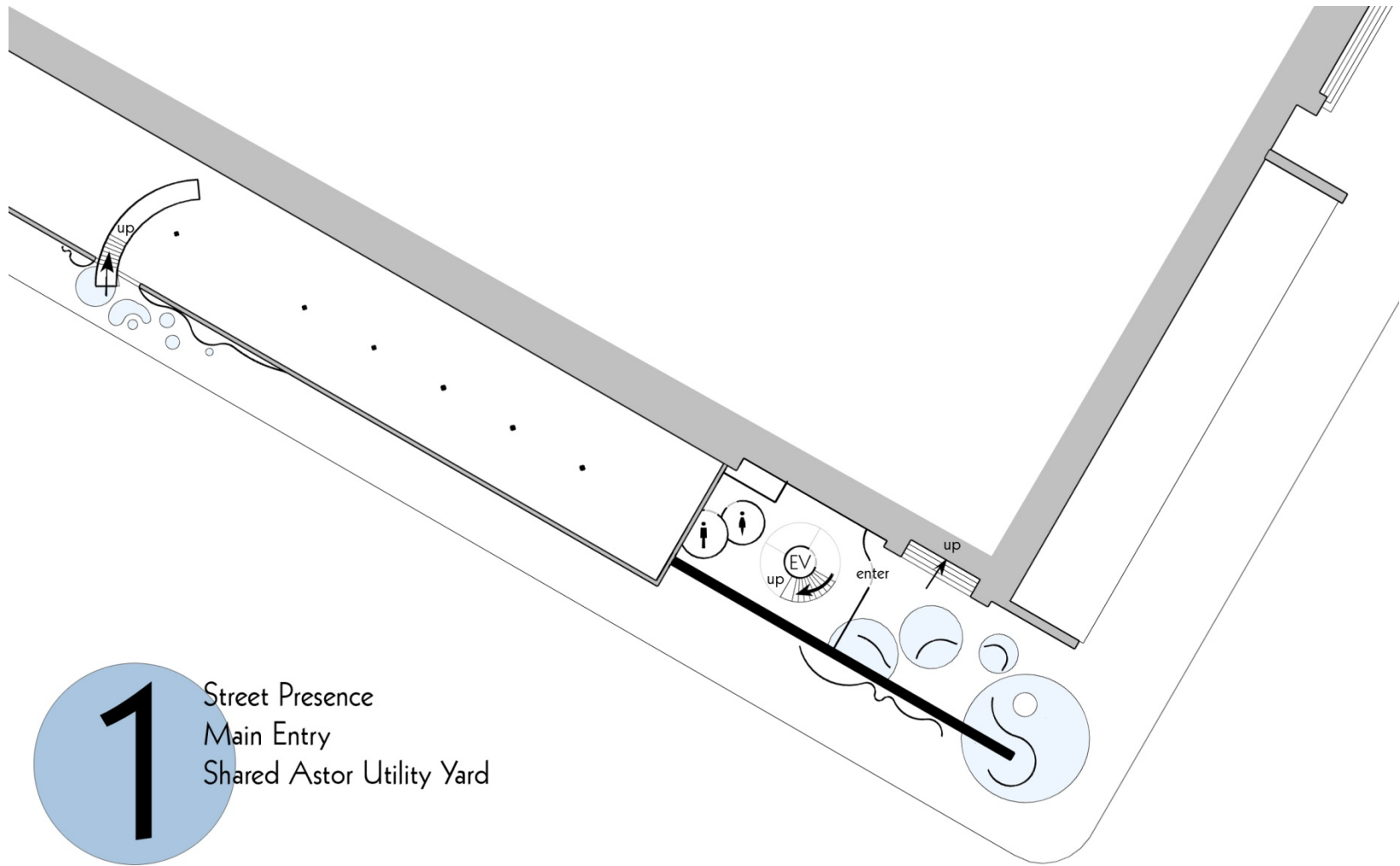


Figure 120: 1st Floor Plan

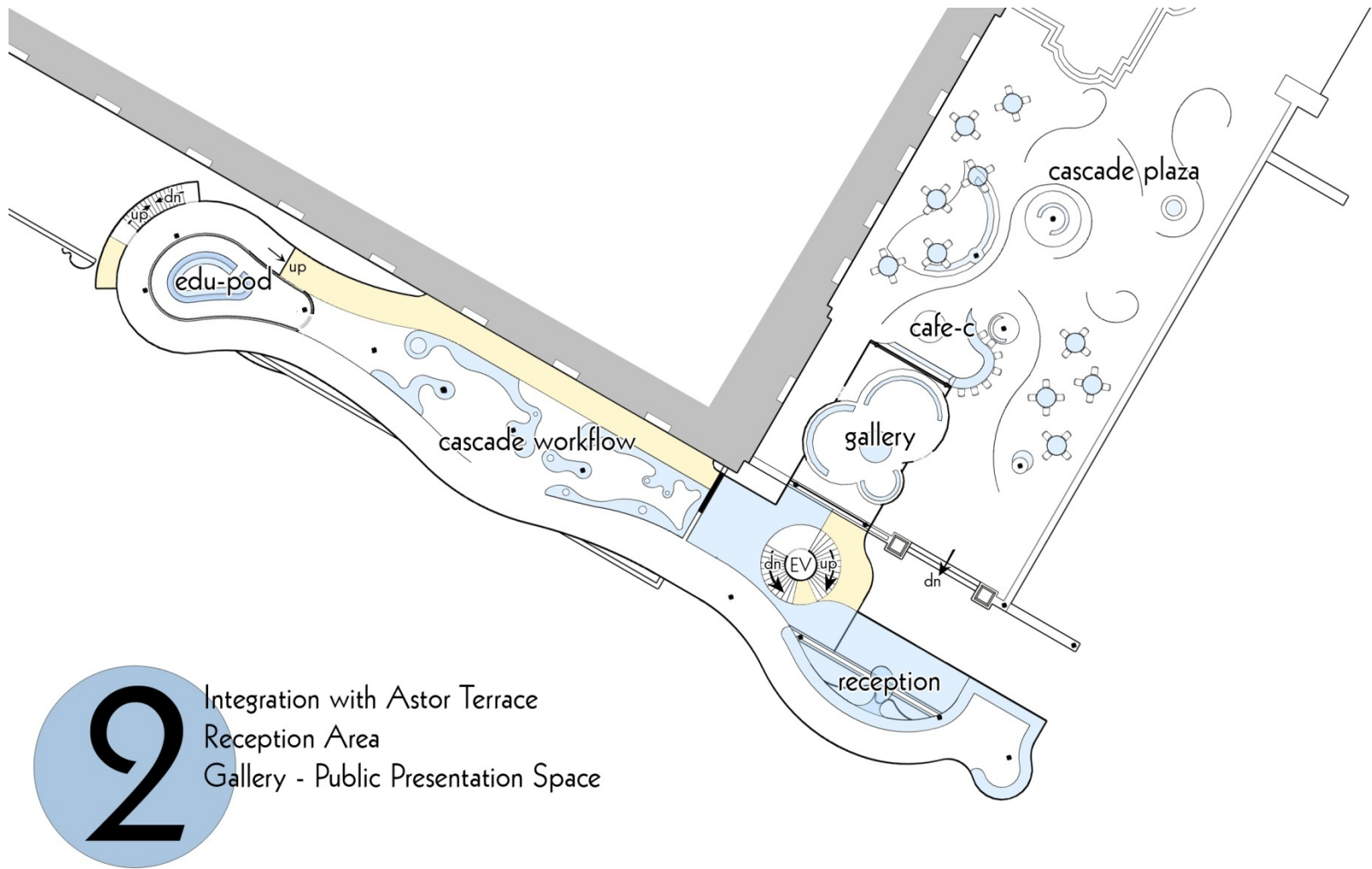
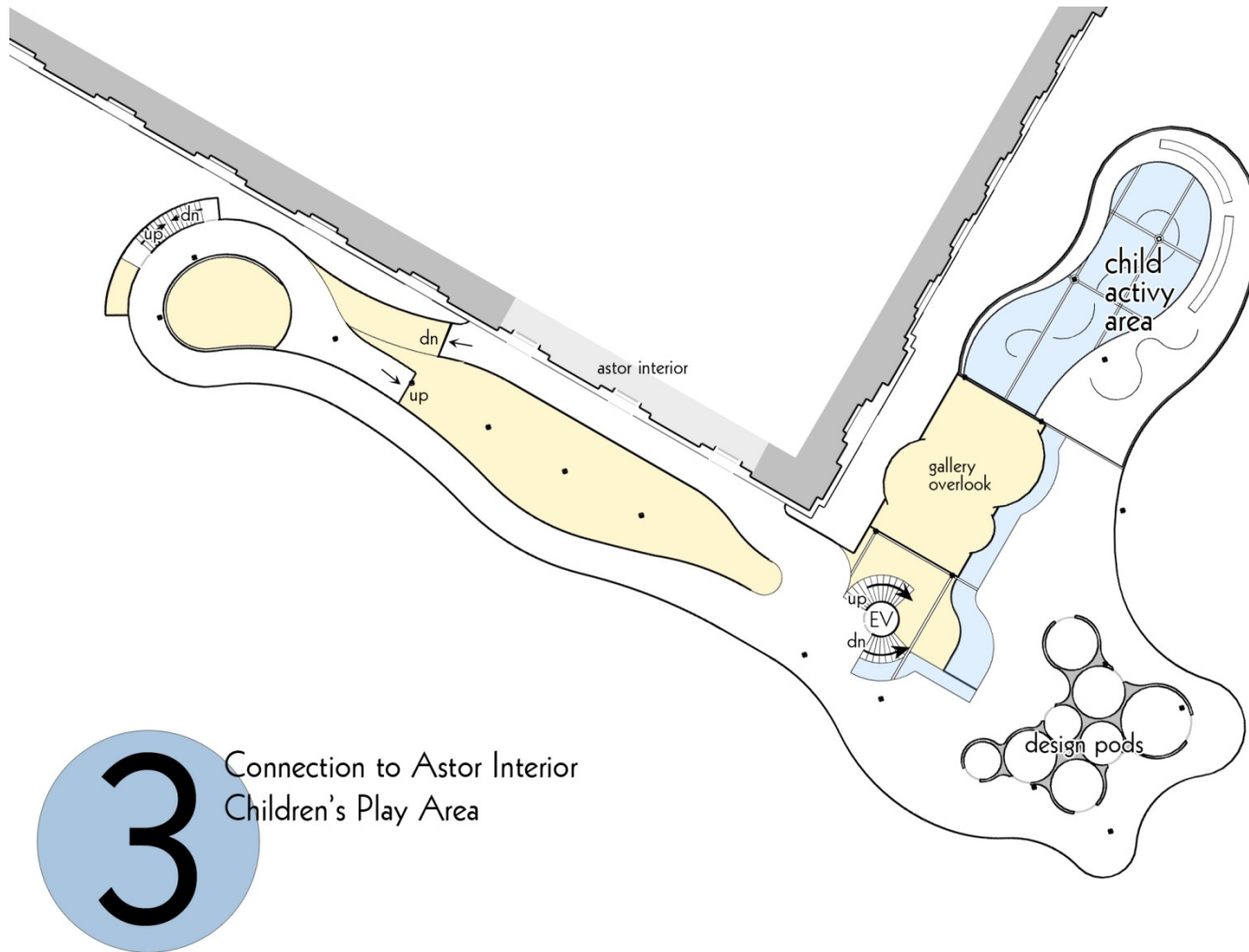
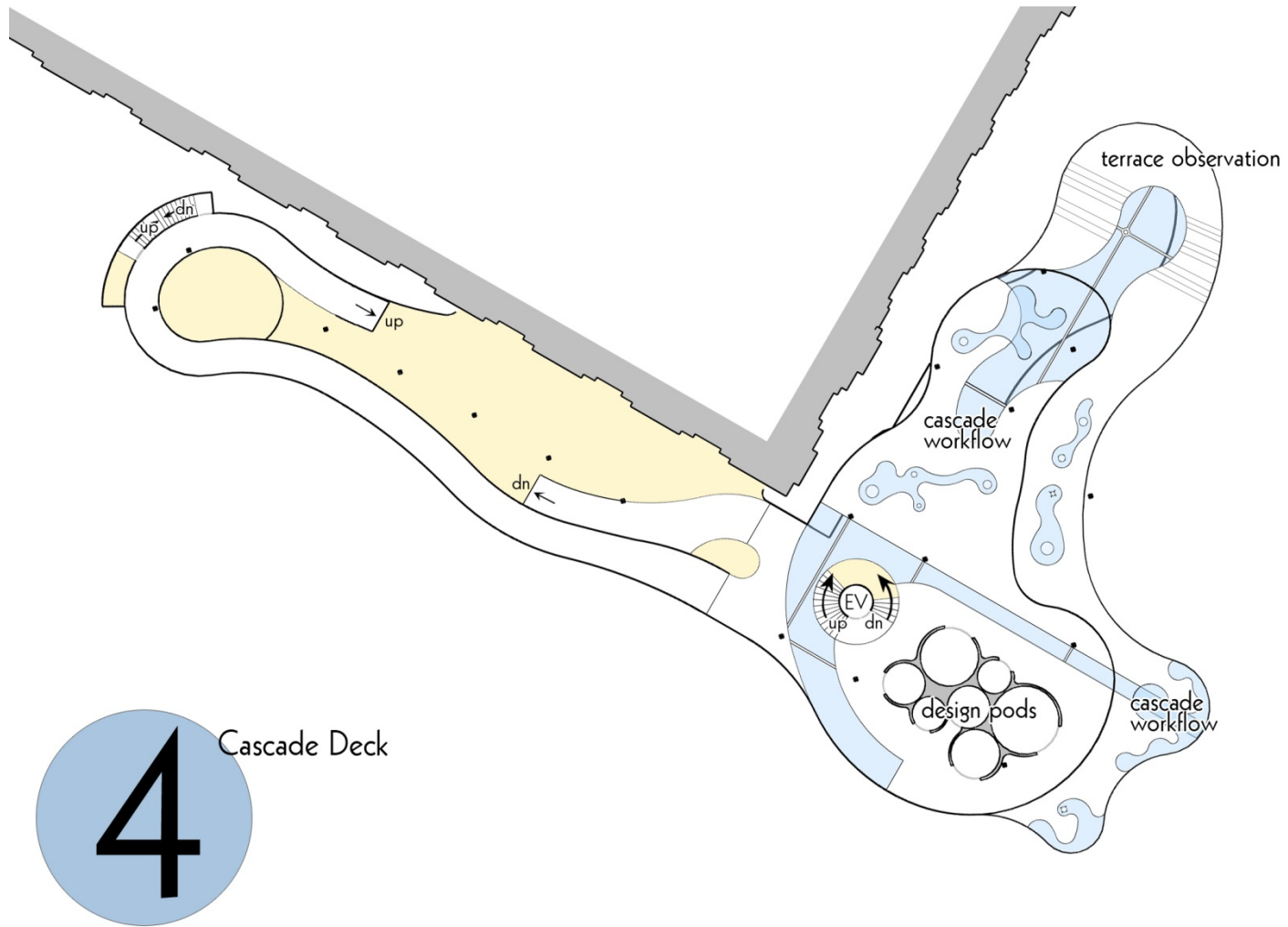


Figure 121: 2nd Floor Plan



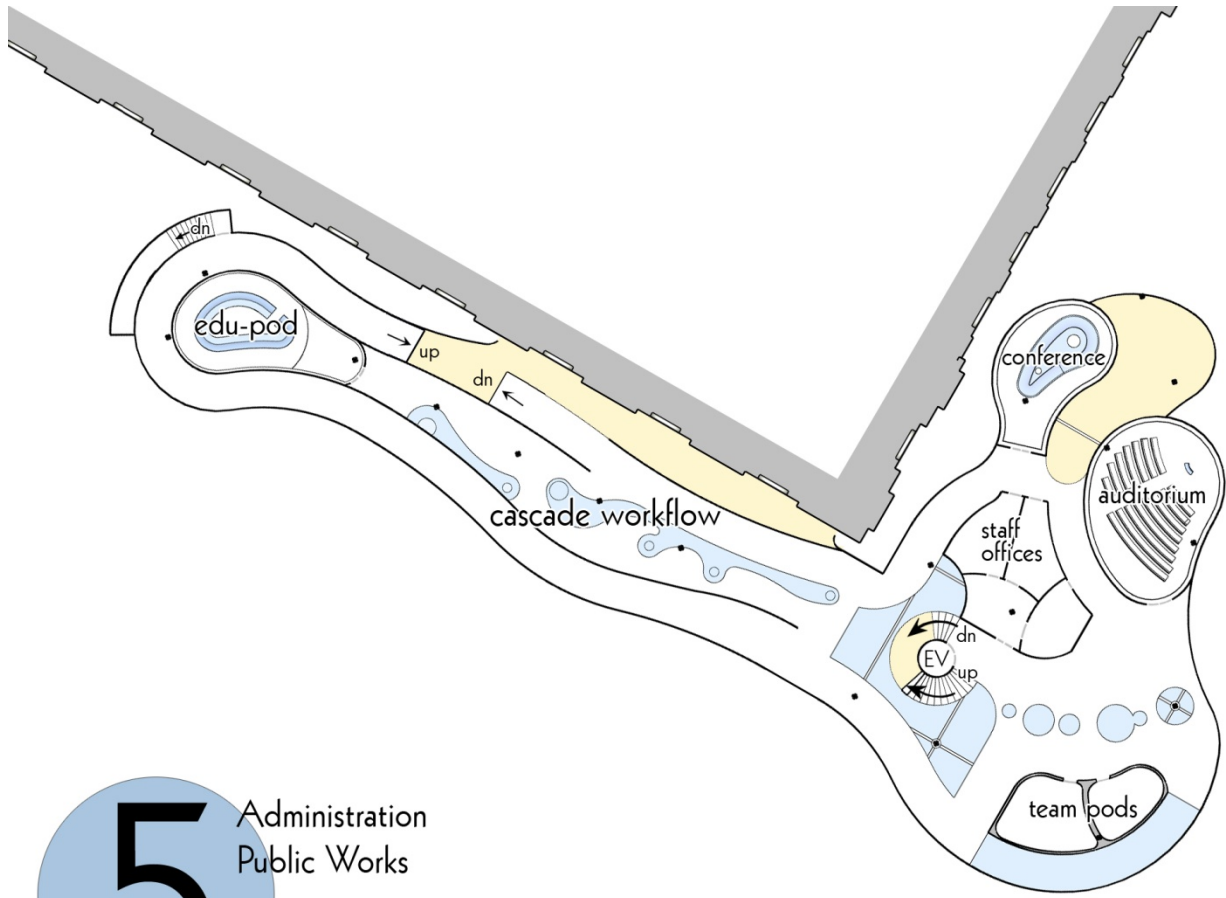
3 Connection to Astor Interior
Children's Play Area

Figure 122: 3rd Floor Plan



4 Cascade Deck

Figure 123: 4th Floor Plan



5 Administration
Public Works

Figure 124: 5th Floor Plan

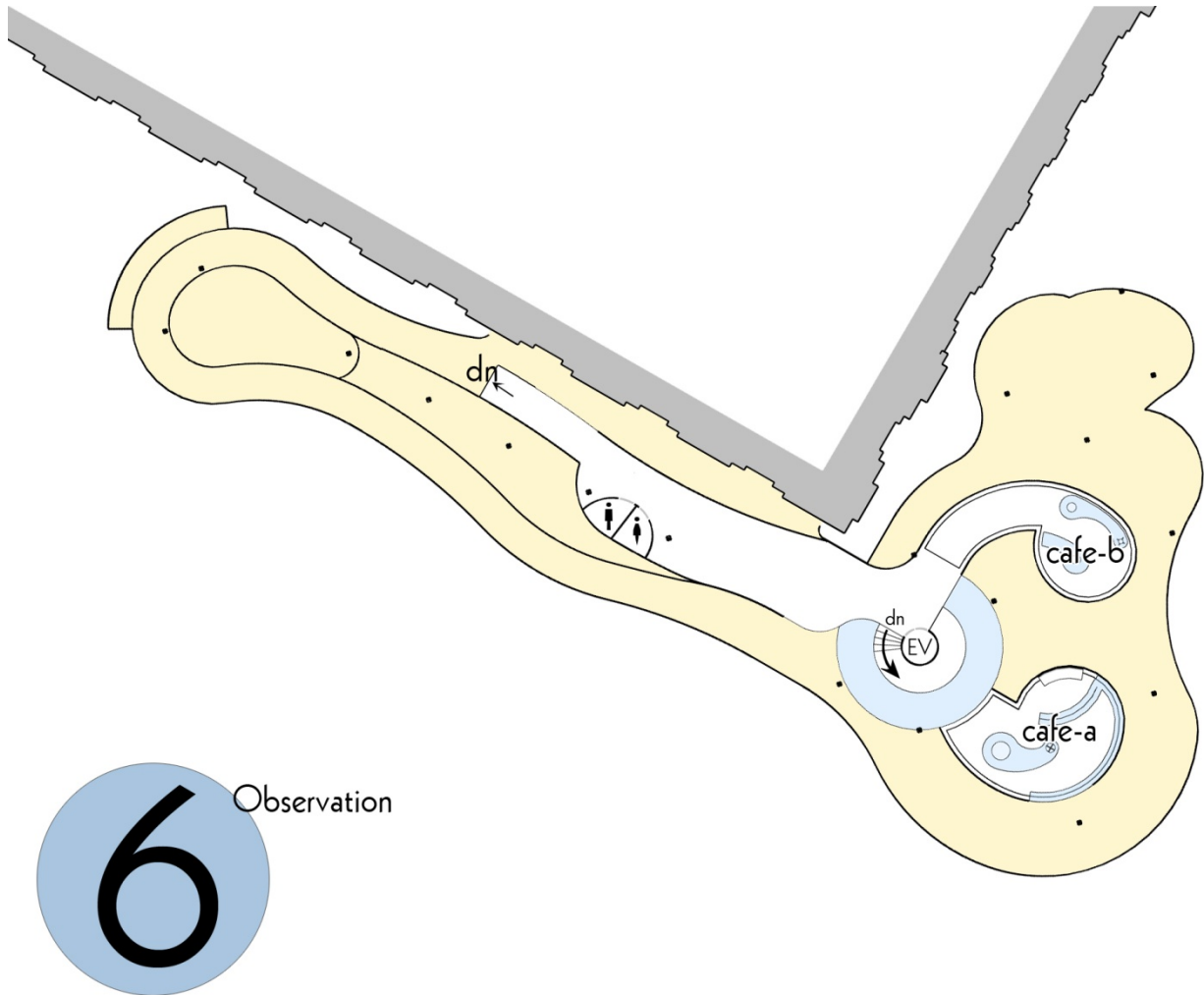


Figure 125: 6th Floor Plan

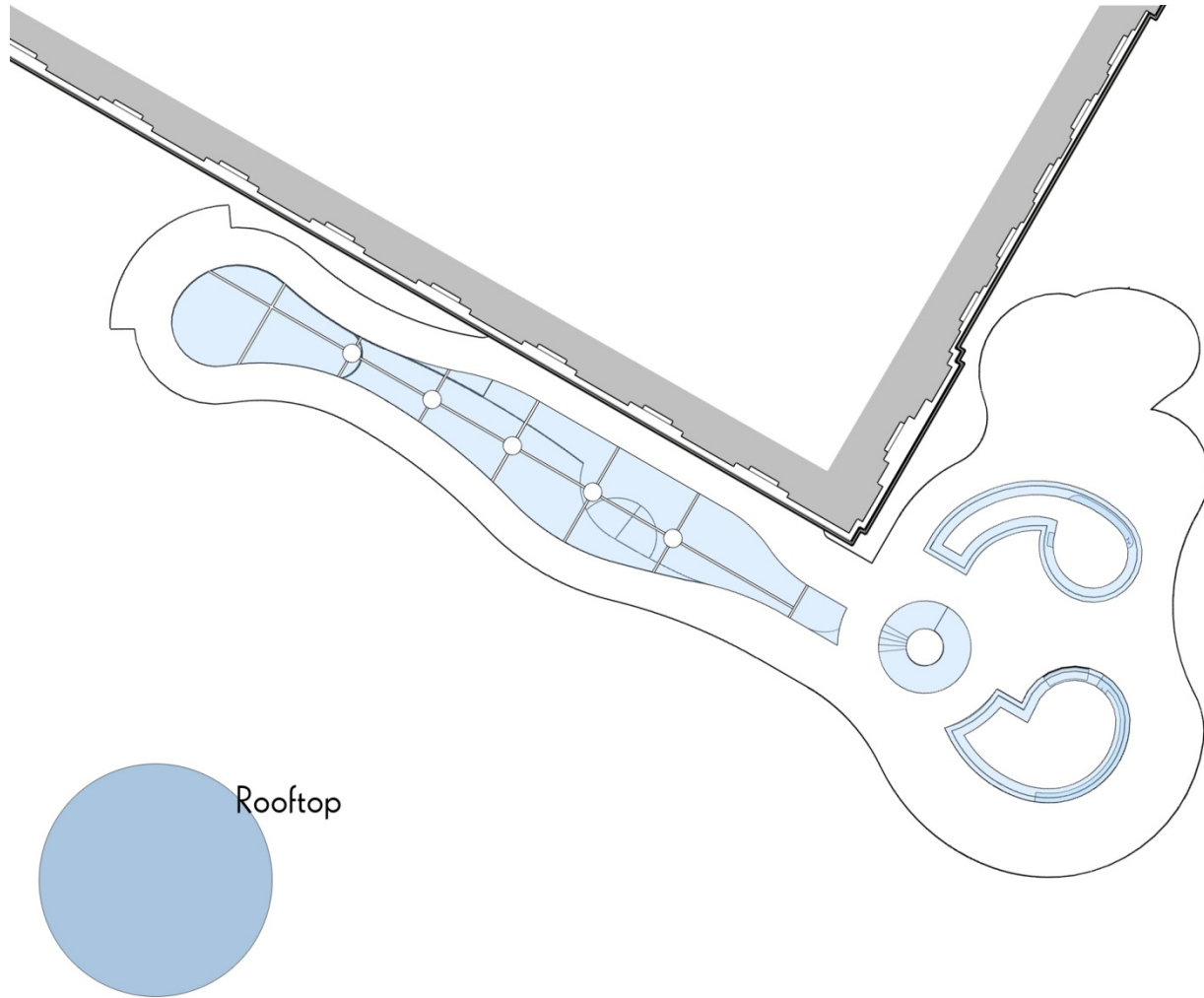


Figure 126: Rooftop Plan

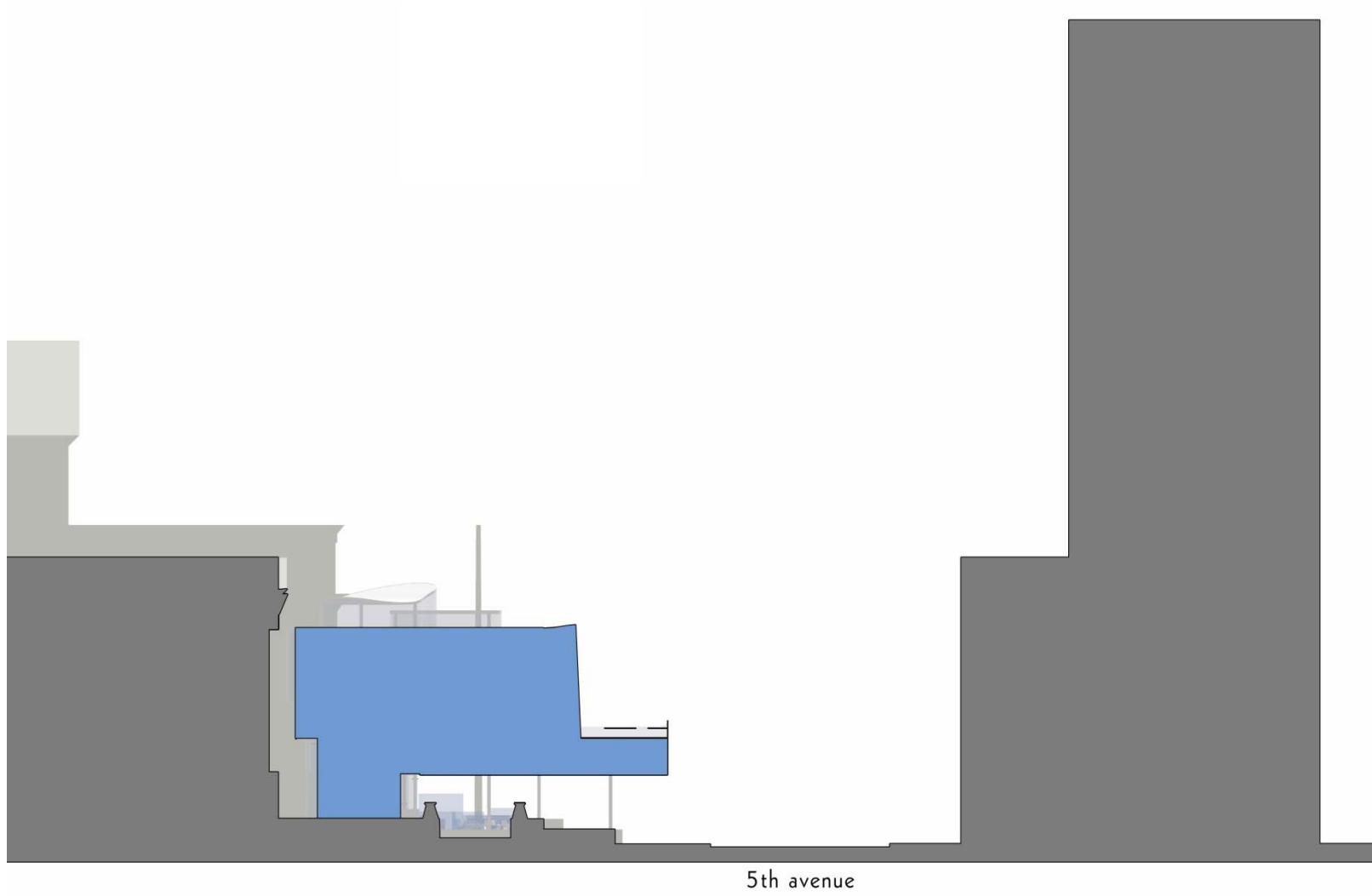


Figure 127: Street Section - 5th Avenue

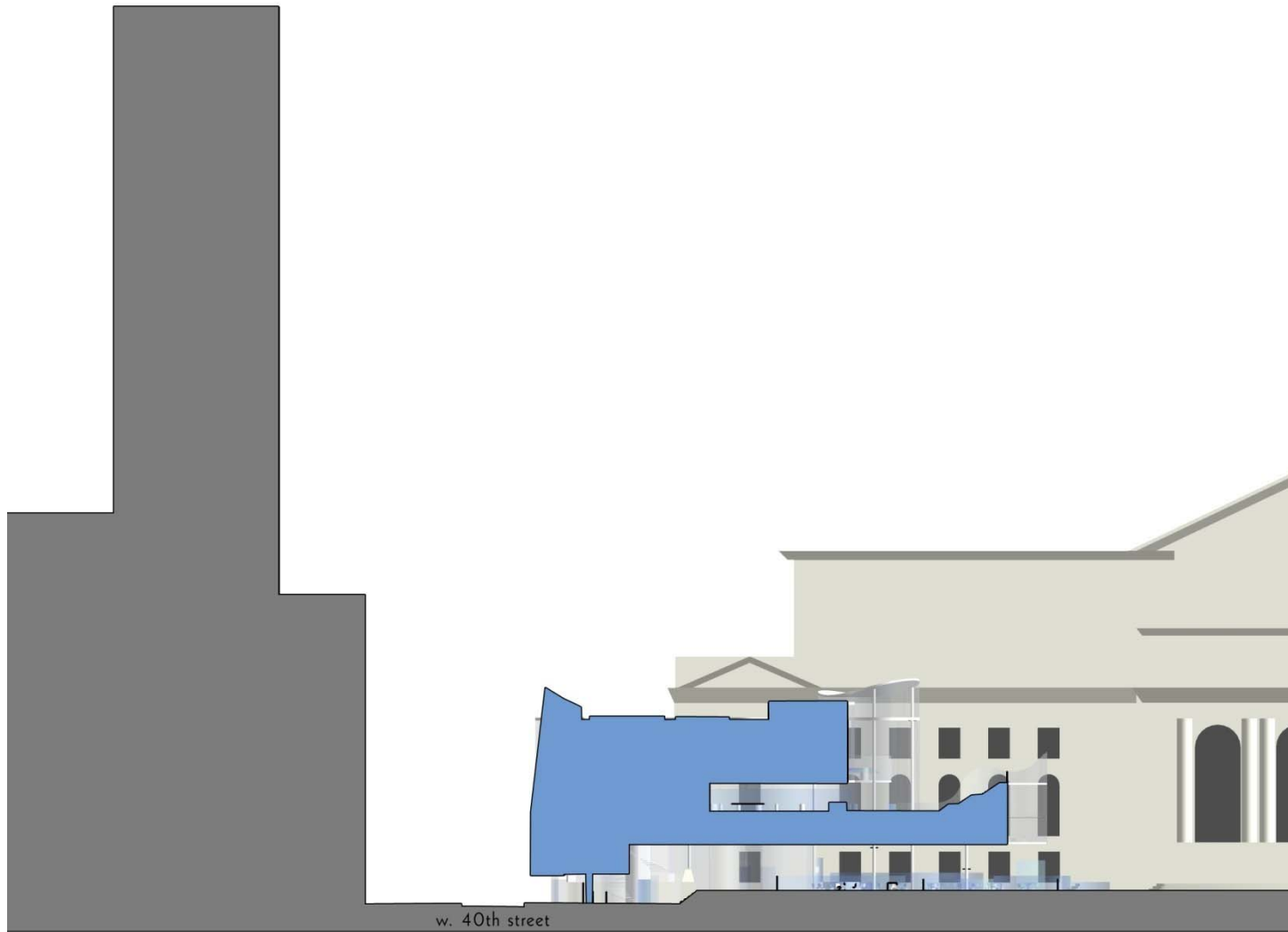


Figure 128: Street Section - 40th Street

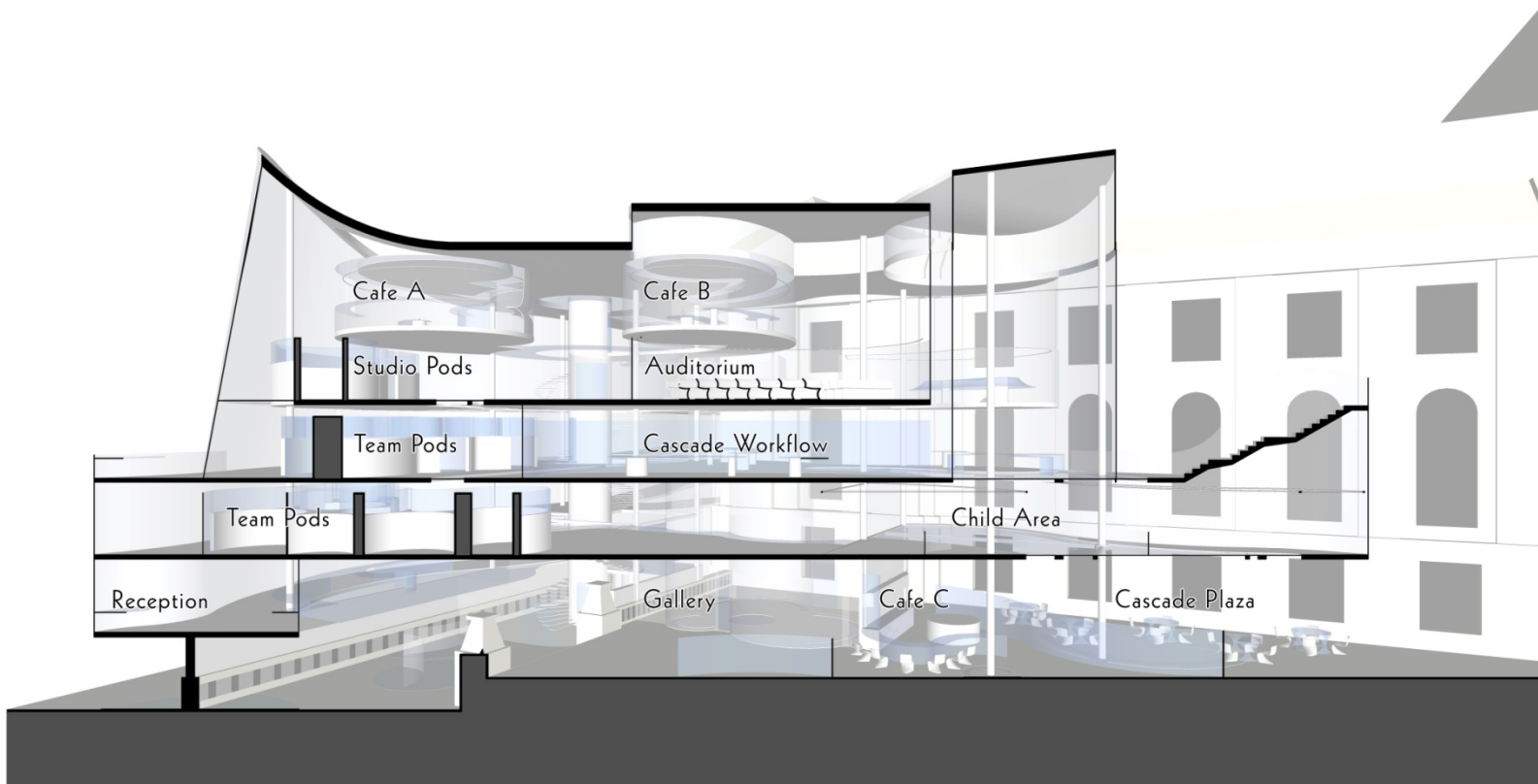


Figure 129: Section A - Through Terrace and Core

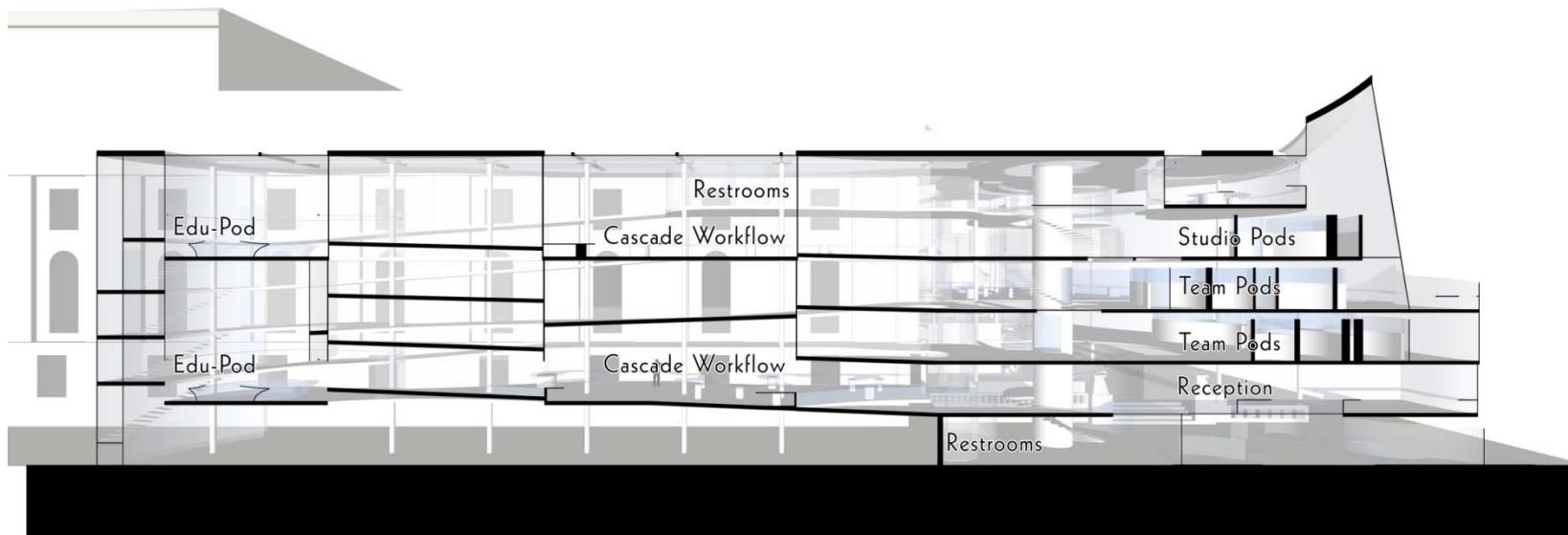


Figure 130: Section B – Through West Wing and Core

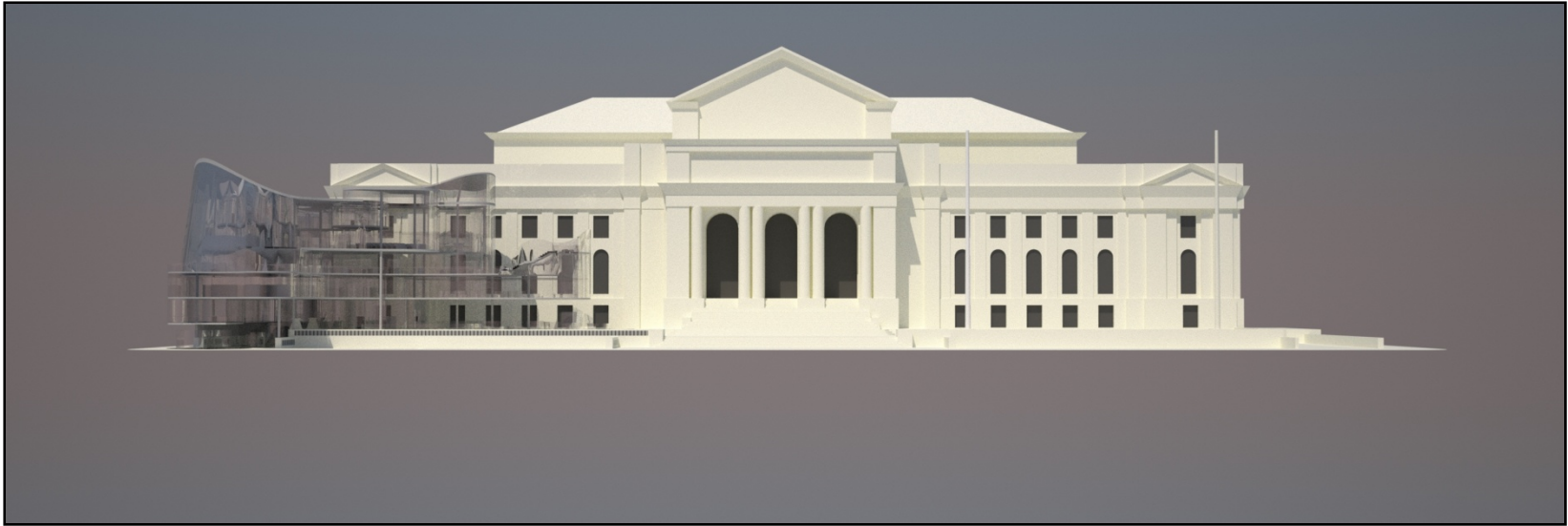


Figure 131: Elevation - 5th Avenue

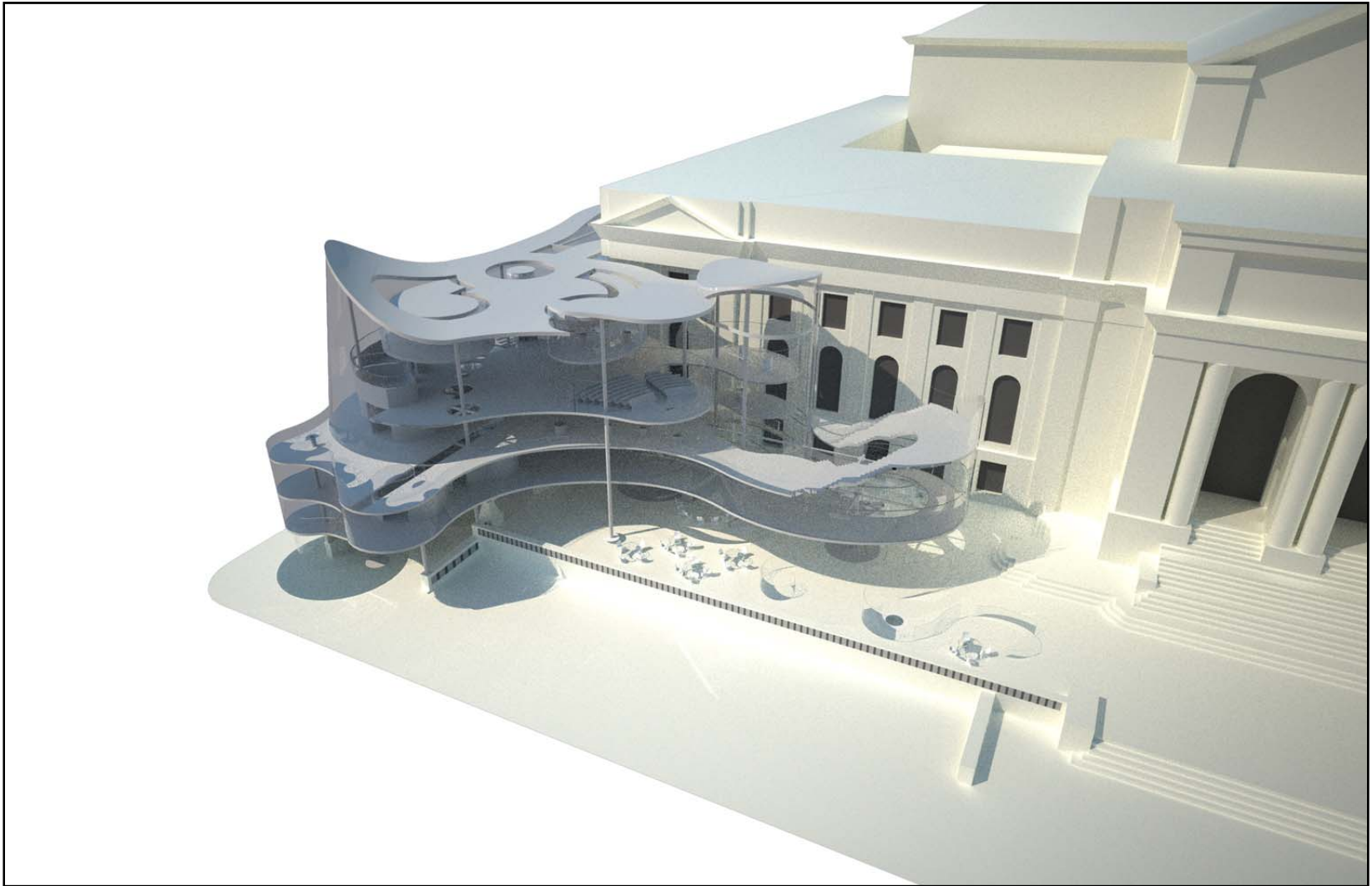


Figure 132: Rendered Perspective 1

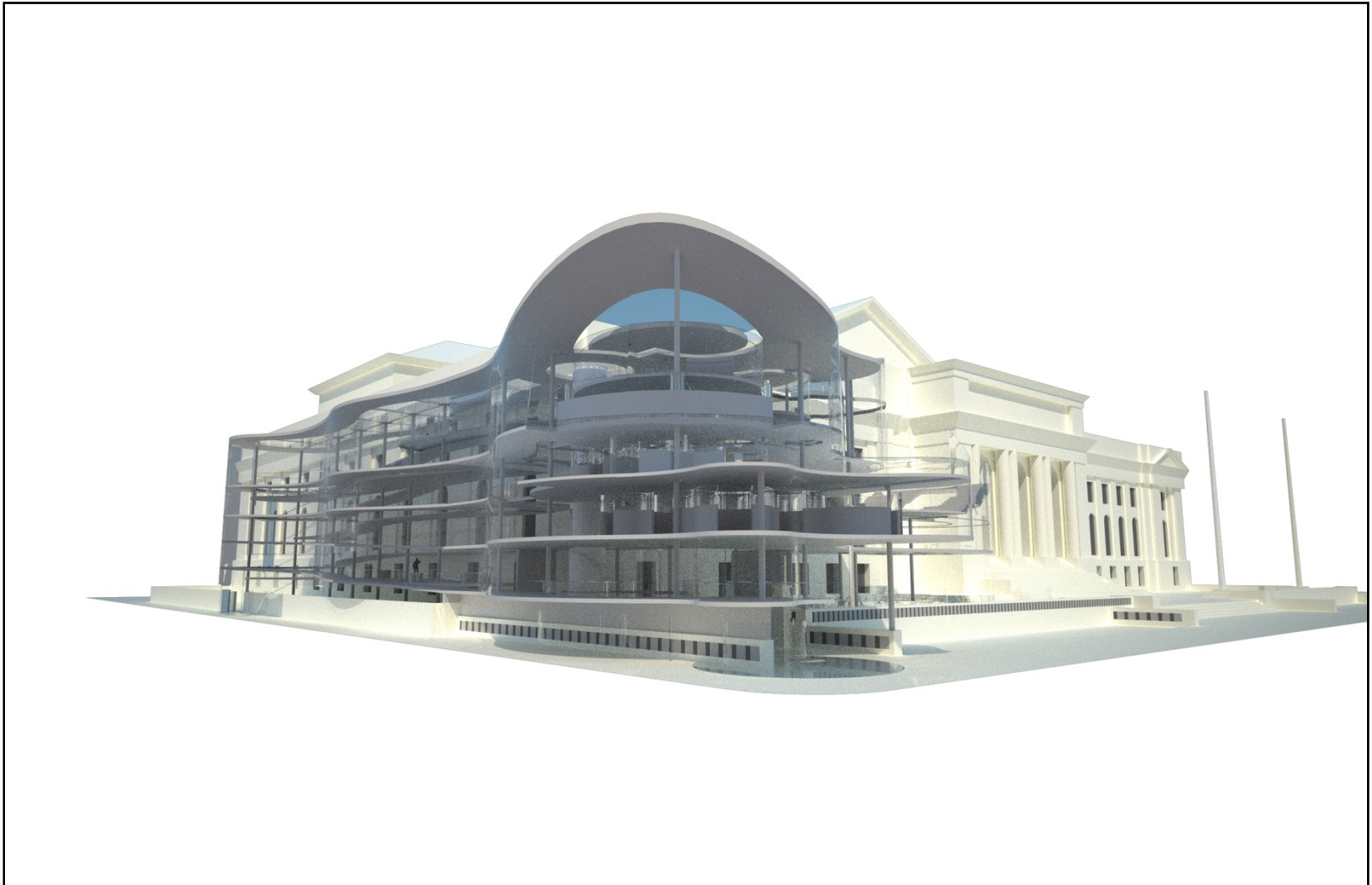


Figure 133: Rendered Perspective 2

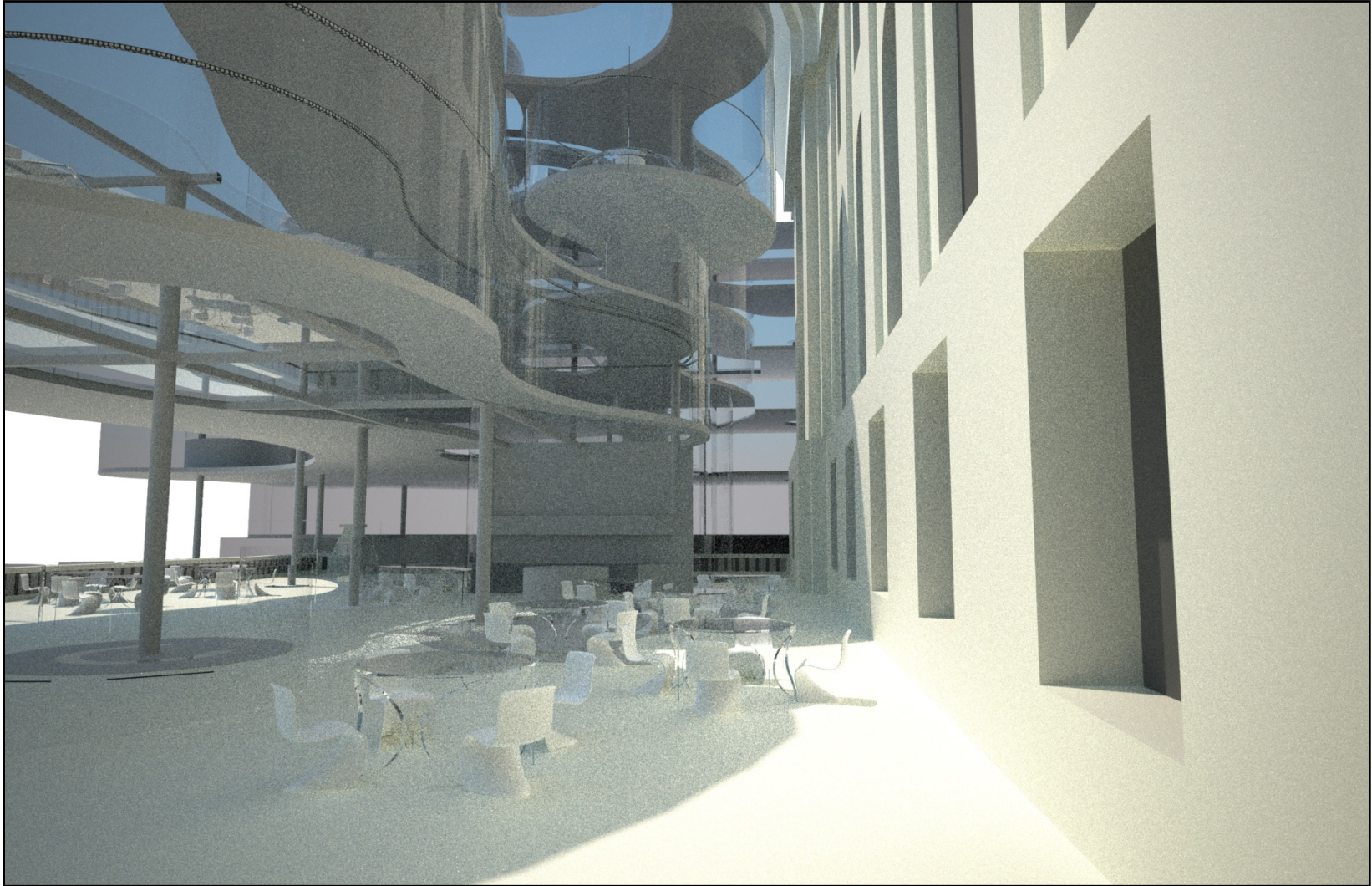


Figure 134: Rendered Perspective 3

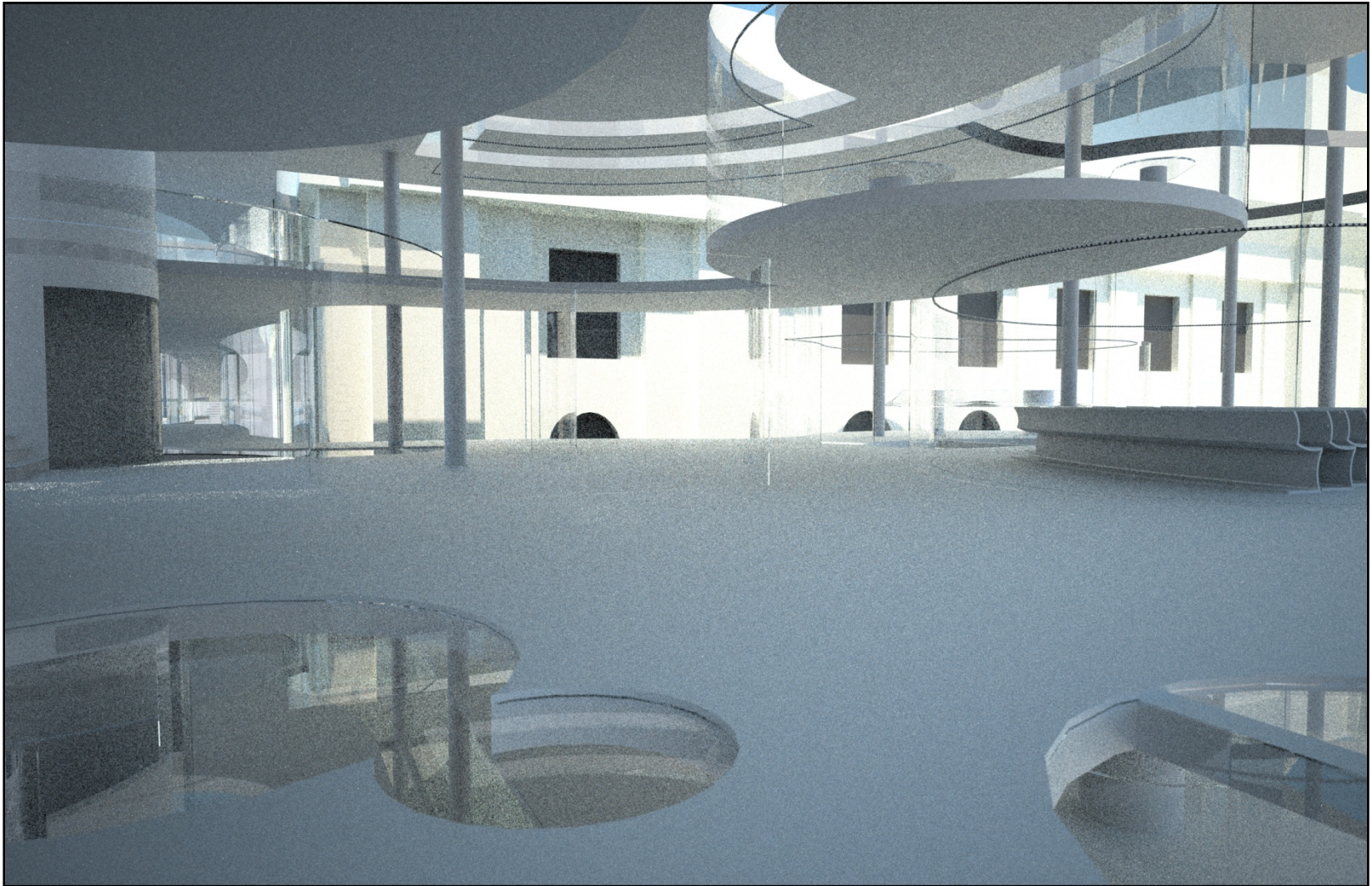


Figure 135: Rendered Perspective 4

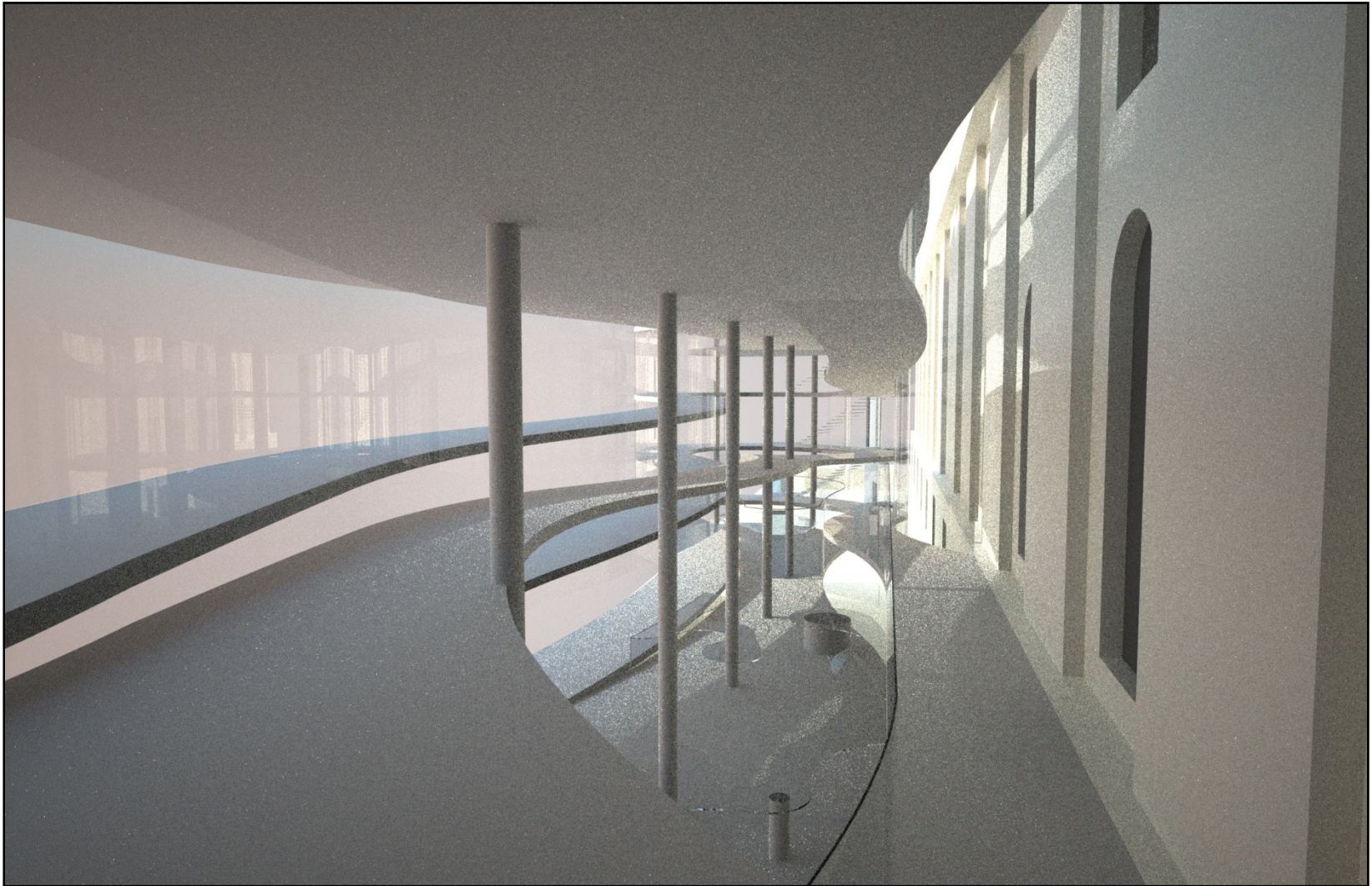


Figure 136: Rendered Perspective 5

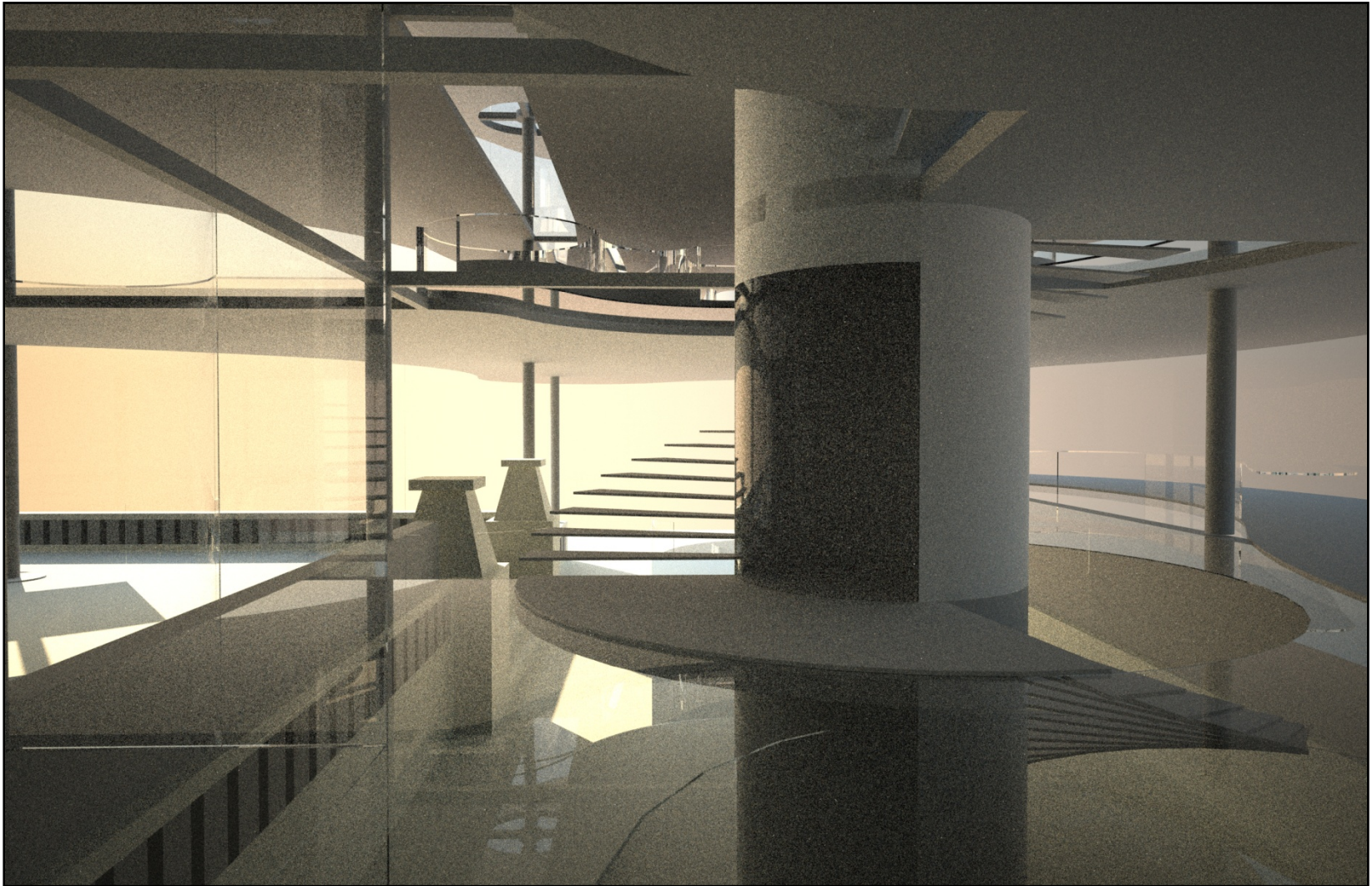


Figure 137: Rendered Perspective 6

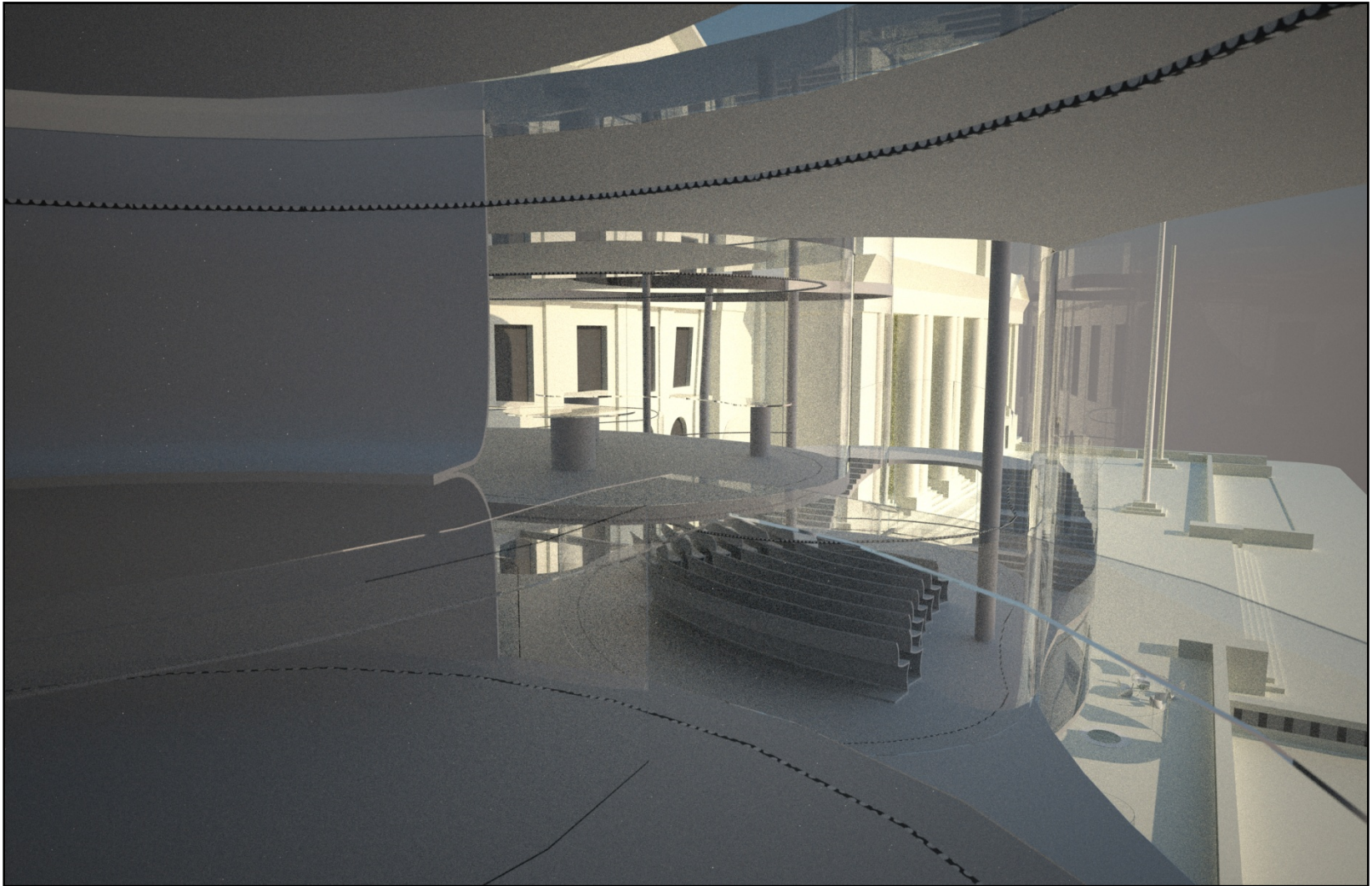


Figure 138: Rendered Perspective 7



Figure 139: Watercolor and Ink Perspective 1 - Commissioned



Figure 140: Watercolor and Ink Perspective 2 - Commissioned

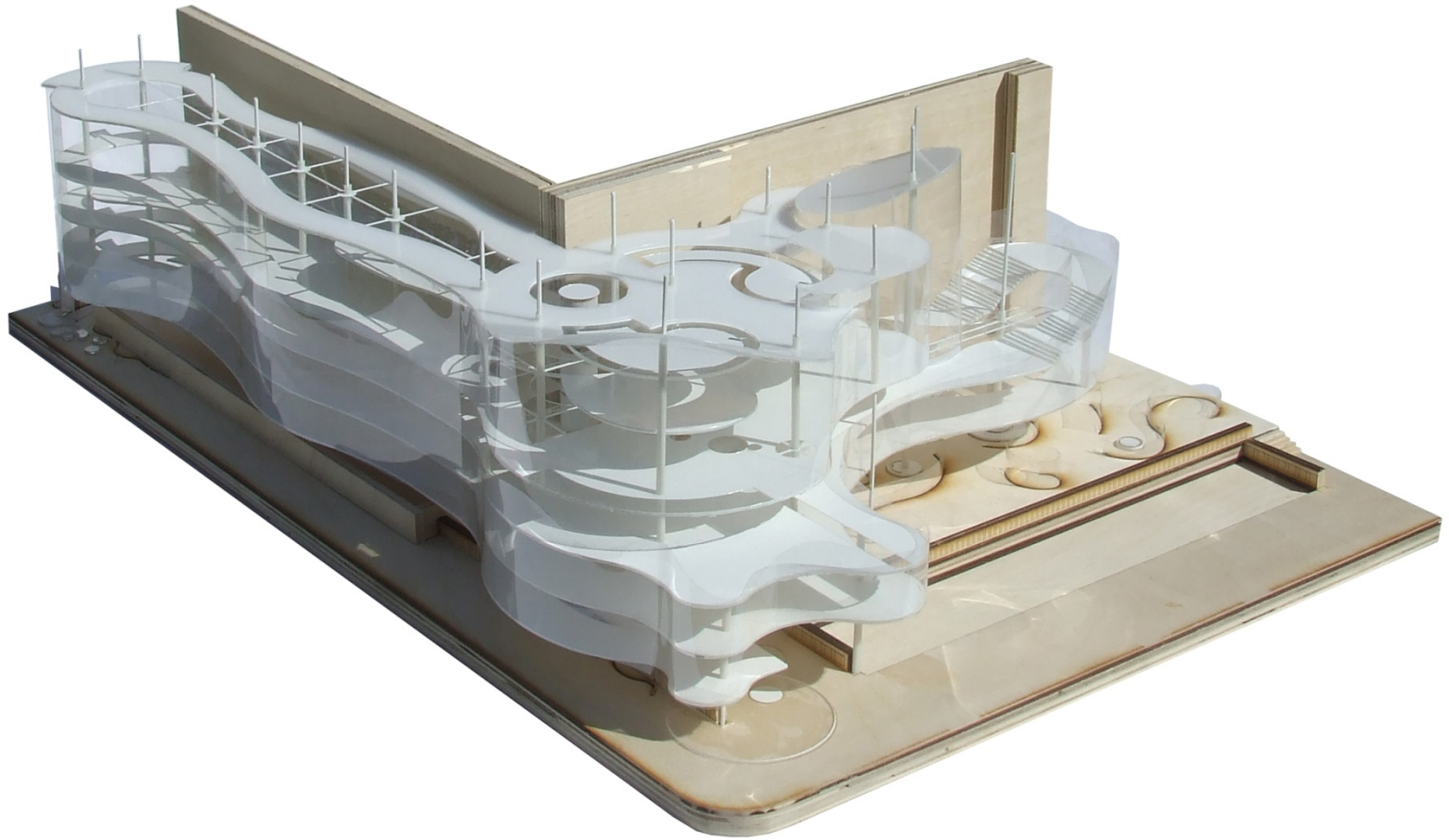


Figure 141: 1':0.1" scale model, acrylic, plastic, and wood

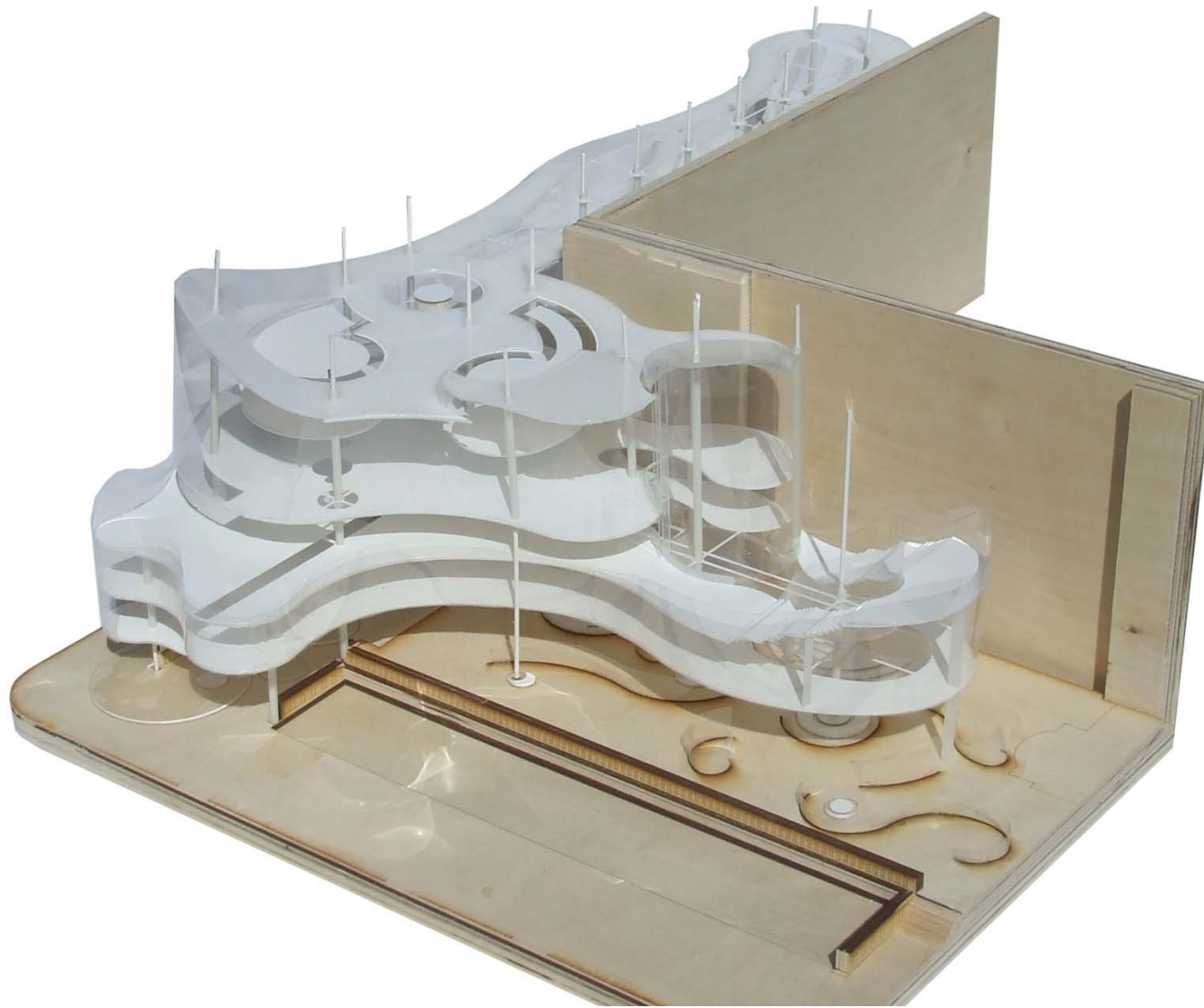


Figure 142: 1':0.1" scale model, acrylic, plastic, and wood



Figure 143: 1':0.1" scale model, acrylic, plastic, and wood

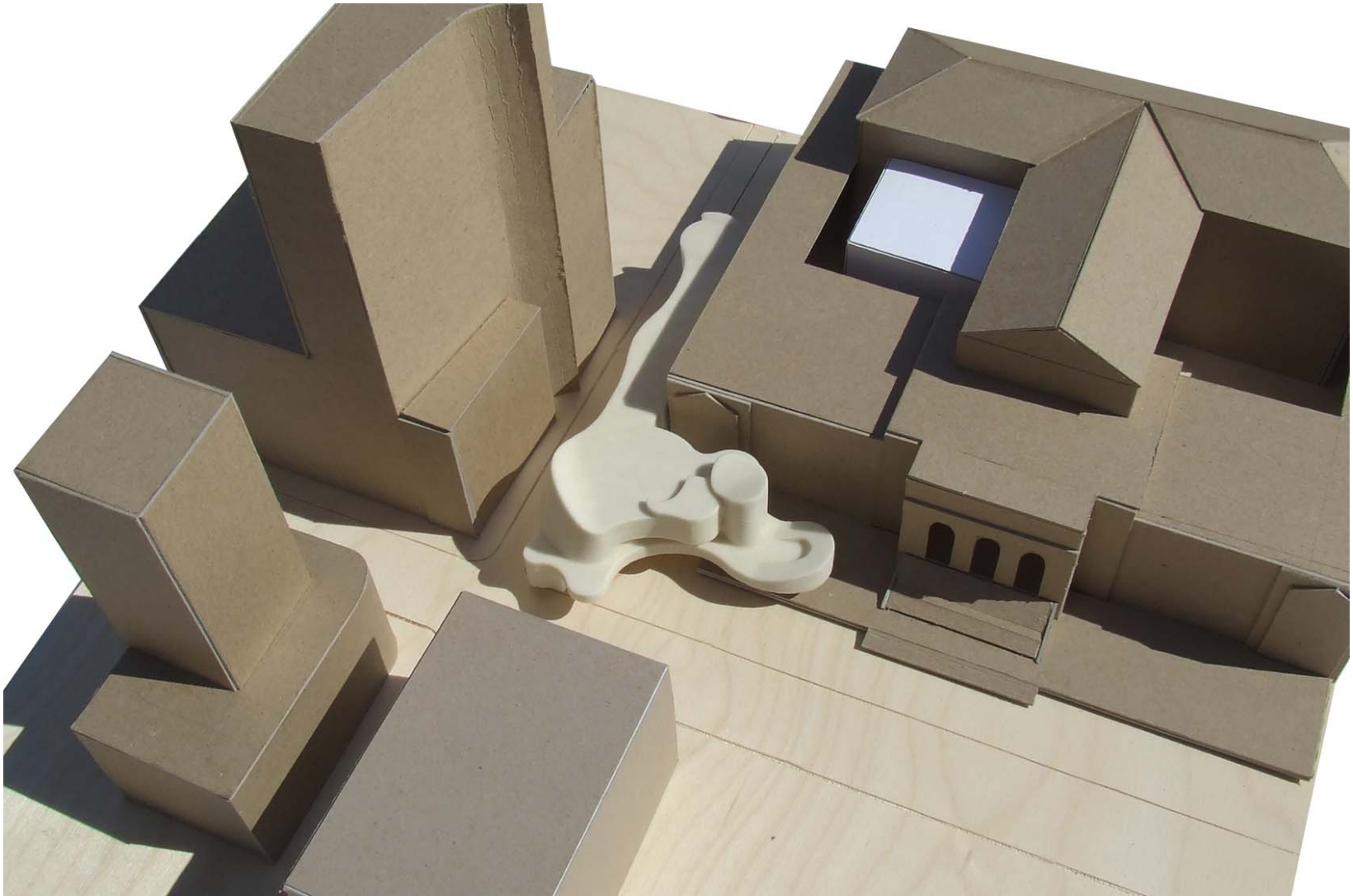


Figure 144: Site Model, 1:400 scale, Icomde piece courtesy of Engineering Dept. Rapid Prototyping



Figure 145: 1:400 scale, Icomde piece courtesy of Engineering Dept. Rapid Prototyping

REFERENCES

Barreneche, Raul A. "Davis Brody Bond Gives New Life to a Beaux-Arts Grande Dame, with the Modern New South Court of the New York Public Library." Architectural Record 190.11 (2002): 134-41.

Biba, Erin. "Biblio Tech." Wired 15.1 (2007) <<http://www.wired.com/wired/archive/15.01/start.html>>.

CityWall, Helsinki. "CityWall." 2008. <<http://citywall.org/>>.

Graham, Jefferson. "Here's America's Unquietest Library." USA Today
<http://www.usatoday.com/news/education/2003-10-13-library-usat_x.htm>.

Gwathmey Siegal & Associates Architects Ilc. "The New York Public Library Mid-Manhattan Library Renovation and Expansion Project." 2007. <http://www.gwathmey-siegel.com/portfolio/proj_detail.php?job_id=200001>.

Kageyama, Yuri. "Sony Bends Video Display." AustralianIT (2007)
<<http://www.australianit.news.com.au/story/1,24897,21805296-5013040,00.html>>.

Itō, Toyoo, and Ron Witte. CASE--Toyo Ito, Sendai Mediatheque. Munich; Cambridge, Mass.: New York; Prestel; Harvard University Graduate School of Design, 2002.

Marshall, John Douglas. Place of Learning, Place of Dreams: A History of the Seattle Public Library. Seattle, WA: University of Washington Press, 2004.

Microsoft. "Microsoft Surface." 2008. <<http://www.microsoft.com/surface/index.html>>.

NYPL.ORG. "New York Public Library Unveils \$1 Billion Transformation Plan." March 11, 2008
<http://www.nypl.org/press/releases/?article_id=86>.

O'Reilly, Tim. "What Is Web 2.0? Design Patterns and Business Models for the Next Generation of Software." September 30th, 2005
2005. <<http://www.oreilynet.com/pub/a/oreilly/tim/news/2005/09/30/what-is-web-20.html>>.

Otani, Takuya. "Double-Faced Touch Panel Display Debuts." Tech-On (2008)
<http://techon.nikkeibp.co.jp/english/NEWS_EN/20080829/157145/>.

Perceptive Pixel. "Perceptive Pixel." 2008. <<http://www.perceptivepixel.com/>>.

Rybczynski, Witold. "Borrowed Time, how do You Build a Public Library in the Age of Google?" Slate (2008)
<<http://www.slate.com/id/2184927/>>.

Council on Library and Information Resources, and Geoffrey T. Freeman. Library as Place : Rethinking Roles, Rethinking Space. Washington, D.C.: Council on Library and Information Resources, 2005.

BIBLIOGRAPHY

- Bazillion, Richard J., and Connie Braun. Academic Libraries as High-Tech Gateways : A Guide to Design & Space Decisions. 2nd ed. Chicago: American Library Association, 2001.
- Conference on Integrated Online Library Systems, et al. IOLS 2000, Integrated Online Library Systems : Proceedings--2000, New York, may 17-18, 2000. Medford, NJ: Information Today, Inc., 2000.
- Cox, Sarah. "New York Public Library Restores another Beautiful Space [Map Division]." Architectural Record 194.2 (2006): 34.
- Crosbie, Michael J., and Damon Douglas Hickey. When Change is Set in Stone : An Analysis of Seven Academic Libraries by Perry Dean Rogers & Partners, Architects. Chicago: Association of College and Research Libraries, 2001.
- de Laubier, Guillaume, and Jacques Bossier. The most Beautiful Libraries in the World. New York: Harry N. Abrams, 2003.
- Ferguson, Amalin. "NPS Libraries Come of Age: Building the NPS "Virtual Library"." CRM: [bulletin].6 (1998): 36-8.
- Foster, Nancy Fried, and Susan Gibbons. Studying Students : The Undergraduate Research Project at the University of Rochester. Chicago: Association of College and Research Libraries, 2007.
- Kellogg, Craig. "The Mid-Manhattan Library Under Wraps." Oculus 63.7 (2001): 6-7.

Kenney, Anne R., Council on Library and Information Resources, and Anne R. Kenney. E-Journal Archiving Metes and Bounds : A Survey of the Landscape. Washington, DC: Council on Library and Information Resources, 2006.

Lueder, Dianne C., and Sally Webb. Administrator's Guide to Library Building Maintenance. Chicago, IL: American Library Association, 1992.

Mitchell, Marilyn. Library Workflow Redesign : Six Case Studies. Washington, DC: Council on Library and Information Resources, 2007.

Pace, Andrew K. The Ultimate Digital Library : Where the New Information Players Meet. Chicago: American Library Association, 2003.

Schultz Jones, Barbara. An Automation Primer for School Library Media Centers and Small Libraries. Worthington, Ohio: Linworth Pub., 2006.

APPENDIX

Appendix: Icomde Story

The following short story, done in the style of a single chapter excerpted from a novel, was part of the early design process done to illustrate what a visit to the Icomde might be like. Furthermore, it was taken beyond the scope of a mere descriptive narrative and into the framework of a novel chapter to coincide with the spirit of Icomde as a creative outlet, in a culture where writing is no longer limited to professional authors, and storytelling can be shared with anyone the world over.

Icomde Story. Chapter 2. Morden Wakes Up

It was just a bit past two in the morning. She just got finished telling me "I told you so." In more words.

"Yeah," I said in reply. "You're a real Cassandra."

"Does that mean you'll never believe me, no matter how many times I'm right?"

"No, it means no matter how many times I do believe you, you'll only remember the times I didn't."

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It all started when I got the call at half past eleven on a Tuesday morning. "Mister Morden," the voice said, sounding like it had been sucking air through a filter since it was ten. "My name is Calhoun. I hear you're good at dealing with people."

"You heard wrong," my own voice said, probably sounding like I had just swallowed a porcupine. "I'm good at observing people. It's my partner who does the dealing."

"Whatever the details are," he replied quickly, "I am sure will be made apparent as they are appropriate to make apparent."

It took me a second to untangle his odd statement. Any mind that could work linguistic loops like that was not one I wanted to spend very much time talking with. "And who decides that, you or me?" I was already on guard; already sparring. It was like I had been talking with him for an hour already. This was where the conversation was going to go, so there was no point in delaying it.

"If the details are mine; I decide. If they are yours; you decide. Why are we talking about this? Is this how you always deal with potential clients? Ah, but you did just tell me that it is your partner who does the dealing. Should I have called him?"

"Her," I said, knowing full well that he knew that my partner was a she. "Florence Point." He was feigning ignorance. Everything was a game to this one. I knew it as soon as he laid down that BS about me being good with people.

"Ah, so Doctor Point is a woman. Well then, perhaps I should speak with *her*?"

I yawned, a long cat-like yawn which I was sure gave him a clear mental image of a long furry beast arching up its back to twice its normal height. "She's not exactly sitting across the desk from me holding her hand out for the phone," was all I said. I figured he was old enough to remember the days when phones were objects that could be passed from person to person. This conversation was pointless. Why was he being so roundabout? He was stalling for some reason. He was trying to reason me out; that or giving me something to reason him out with. Did he want me to know the truth, or was this some show to mislead me? More importantly, why was my glass empty, and how could I survive the next minute if this wasn't corrected? I reached for the bottle on the shelf as I waited for his calculated reply.

"I can see you have a sense of humor." That was nonsense. If he has born witness to my sense of humor he'd have dropped the phone because he was laughing too hard; or to pick up a blunt object in order to bludgeon himself to death. "I think you and I will get along after all, Mister Morden." He has been planning to say that all along, but was probably hoping that there would have been a better lead-in to it rather than that BS about my sense of humor. I waited as he pronounced every syllable hoping that his next sentence would have some relevance, and not be just some rhetoric designed to make me more amicable without knowing why. I was way, way too disconnected from the normal human thought process for that. "We should meet, along with your partner, and discuss this matter further. I think I can pay your rent for the rest of the year, if all goes well."

"In that case, I had better find better digs. As long as you're spouting vague promises I may as well take advantage of their full nebulous implications, eh?"

"I'll see you at O'staf's Burgers in two hours."

I could tell from the start that this was going to be all about long pointless conversations designed to trick the listener into revealing something about his-or her character that could be used against them. Or maybe this guy was just as bad at dealing with people as I was. Either way, I had Flow on the line next and was yammering the spiel to her.

"He actually said that?" she said in the least deadpan tone she was ever known to make unless she was deliberately putting on a show. It was how I knew she was amused. Or irritated. With her it didn't really make a difference, because she usually found her own irritation to be a source of amusement. She was, of course, talking about the part where Calhoun pretended to think she was a man.

"One of the problems of that whole Doctor thing," I said, taking her infinitesimal display of emotion to be an invitation to tease. "Makes that glorious sex appeal you try so hard to manufacture all pointless."

"No pun intended?" she asked, but completely dry that time. Figures she'd latch on to the unintentional wordplay and completely dodge my ribbing. But, that was how I knew she liked me. If it was anyone else she'd have played along. She didn't like playing along. It was how she avoided actually bonding with anyone.

I met her on the way there. "A trench coat?" was all I said when she finally caught up with me. "This time of year?"

"Your comment about my glorious sex appeal cut me to the core. I figured I may as well go unisex today."

I wasn't going to look her up and down. I was walking too quickly down a busy sidewalk, and wasn't nearly cool enough to walk without watching where I was going without tripping or ramming into someone, so my reply had to go without the sight gag. "You really don't understand people, do you?"

Far sooner than I wanted but far later than my legs cared for I was sitting in a booth at the diner with Flow at my elbow. The waiter came up, spoke the only English words he probably knew, and she and I both replied, "Coffee."

A few silent seconds later and I was drinking the stuff. It was half as strong as I liked, and much too sour. This is why I hated places like this. On the other hand, the burgers would be to die for, if I hadn't already eaten two hours ago. Still, the smell of bacon from the kitchen was taking my mind off that burrito I had just crammed down.

"So if we're meeting him here, he knows what we look like, or you know what he looks like. I doubt the girl at the front is going to act as our liaison without prompting." She sounded annoyed. I probably interrupted her during an exciting date with a frog's brain she was dissecting.

"Fatso," I just said.

"What?"

"The name of this place. Ostaf. It's Fatso backwards."

She stared at me in silence for a moment before saying, "OK."

"I'd say he's about five-eleven, but thinks he's six-two. Two sixty pounds, at least, with forty of that in his gut and twenty in his shoulders. He moves like he's used to having a gun in his pocket, but hasn't worn one for years. He's used to wearing sunglasses, but doesn't anymore so he squints all the time. Way too much hair gel."

"Did you get all of that from talking to him on the phone, or is he walking up to the table right now?"

"Neither. NotFlinn just sent an image to my mobile."

"Huh," she said as she craned her neck to see the photo glowing from the small display. "So he's important enough that NotFlinn could dig up an image of him just like that. This should be interesting."

"Haven't you ever egosurfed before, Flow? I bet I could call up a photo of you from the web, cold. Hell, I bet I could even find one of you in a bikini."

"That would be a neat trick, considering that I've never worn one."

"Don't be silly. Don't you know that these days photoshop comes with an automatic 'make into racy tabloid photo' filter? Came out back in '25. How do you think that industry survived the outlawing of paparazzi? These days all celebrity photos are complete digital fabs."

"And how do you know all of this? Considering a career change?"

And so it went on. We always had our best conversations when we were bored and had coffee. We were both on our second cup of coffee when he arrived. The photo was old. It looked more like fifty of the extra pounds were in his gut now, and there wasn't enough hair to gel anymore. If he ever got a new photo taken he definitely would want to use some type of filter. The 'take off twenty years and fifty pounds' one was especially overused.

Without having to say anything Flow switched on her earpiece, and I did as well. *"Good thing you're so skinny,"* I subvocalized to her, *"when he sits down he's going to smash with this table. Why did we have to get a booth?"*

She gave no reaction to betray that she had heard me, but I had gotten far too used to using the earpieces to have any doubt that she did. Every sarcastic remark, every joke about his balding head would be heard loud and clear, while to him it would look and sound just like we were picking food out of our teeth with our tongues.

"So good of you to both come," he said, with the same voice I had heard on the phone but with a completely different attitude. Either it was the diner setting, the promise of food, or the presence of a woman that changed his demeanor, or this was just another one of his games. I braced myself for the impact of the table against my ribs. Then I remembered another reason why I hated diners; I wanted a smoke.

"Lay it on heavy," I told her silently. "He's caught off guard by you. He doesn't expect to be treated well by a woman, so you can put him off his game."

"Ask me to walk over hot coals, why don't you?" After she got done complaining, Flow smiled warmly and said, "Not at all, Mister Calhoun. I'm always excited to meet with new clients!"

"Oh, please Doctor Point, call me Martin. And must I remain so formal with you?"

She gave a musical laugh and said in her best sing-song voice, "Doctor Point isn't formal, Marin, it's flattering."

"Don't overdo it. I think I just threw up a little."

"Are you sure it's not the coffee?"

She sweet talked him and I kept my mouth shut, or at least, that's what he would think. I never stopped feeding her information. She talked, I observed, and what I observed I'd tell her; raw information, what he was thinking. I couldn't read his mind, but everything he did stood out to me like it was blared through a bullhorn. I noticed every twitch, every glance of his eye, every change in tone.

"I come to you on the behalf of an associate-friend of mine. He's in a bit of trouble you see, and we need a third party to quietly intervene and help him disappear."

"Associate-friend? He broke eye contact. He's gripping the pointer finger of his right hand with his thumb, tugging at it several times before letting go. He keeps glancing outside. As he said disappear he shifted uncontrollably."

She knew what to do with it. She couldn't see it herself – that much was lost to her, but she knew what it all *meant* – that much was lost to me, and how to react to it. How to measure him. How to figure him out. It was how we always worked with clients. It was how we always worked with enemies. People who were clever and knew about the latest gadgets would possibly figure out that we were communicating subvocally, but no-one knew about our particular talents and how we worked together.

"He goes by Willard. Perhaps you've heard of him? Back in the revolutionary days they would have called him first in line to be hanged! No-one knows who he is, except his closest friends of course, and he aims to keep it that way. There are those who don't like what he thinks or says. Those that would mean him harm. Well that's about to happen, but not if you can help me help him."

I relayed everything to her as I saw it, quickly, silently. I could subvocalized far faster than he could talk. "Do we even need to go through this? Even I can tell this guy is lying his fat ass off."

"No, he's not lying his ass off, but he's misrepresenting his own position concerning what he's saying. I wouldn't be surprised if he was the one Willard needs protection from. How can he be that obvious? Does he think we're stupid?"

"No, he just doesn't know you're brilliant."

"Save it for the pillow-talk."

"Yes ma`am."

“Well I am sure we can help, Martin. I can tell that his safety is very important to you,” she said without skipping a beat. She was good at this; having two conversations at once. I was terrible at it. “Please, tell us what you need and we can begin at once.”

The soft, motherly tone was alien to her lips. The look of empathy in her eyes was like a neurotoxin in my brain. Sometimes I could barely stand to watch her, the cold, stoic woman who only I could really get, put on her clown costume and do her little dance of make believe, behaving however she needed to in order to get the reaction we needed from whoever she was dancing for. If I hadn’t known it was all a game I’d have run away screaming. When we weren’t working on someone, when it was just me and her speaking one on one, the only reason I could deal with her at all were her subtleties. With everyone else it was like talking during a hail storm. I’d get lost in the torrents of nuance from their facial and body language, and render everything an overwhelming jumble. They’d be talking on and on and all I’d notice was how many times they tapped their finger or blinked. Oh, I could still carry on with the conversation. I could make sense of it eventually, but I was slow, and I tended to overanalyze. Interacting with her was, I assumed, something like how normal people interact with other normal people. She was still. Every action deliberate. She never fidgeted. Hardly ever blinked. Her fingers did nothing she didn’t consciously tell them to. Her eyes were steady and locked onto mine like nothing else in the room existed. Her speech was smooth and monotone, never betraying more than the slightest hint of meaning beyond the dictionary description of the words. She was normal to me. I *got* her.

Still, I guess I had my edge too. She could have two conversations at once, and I could pay attention to two people at once. Even as I reported every twitch and inflection of Calhoun, Flow herself was at the forefront of my mind. As I watched her it was like there were two people sitting on the booth beside me; the division between her true self and the person she was showing our client was that extreme. I guess I could pay attention to three people at once.

"It is very simple really," Calhoun said after rambling for a minute about political stuff that anyone who read the BS they plastered on the front page of every newsstand from here to Hoboken knew. "There is a data file being held at the 5th Avenue Icomde, under the strictest confidence, or so we thought, which contains the identity of Willard and enough information to track him down."

I relayed to her what I saw, and waited for her to reply, either to me or to him. I felt useless in a way; this guy had absolutely no control over the way his body acted out what he was really thinking; what he really wanted to say. But I had to remember that her knowledge was all theoretical and not practical. Sure, she knew what it all meant, but she wouldn't know it if she saw it. People were incomprehensible to her, like driving down the street and all of the sign posts were turned around so all you could see was blank metal. Sure, sometimes the shape of the sign helped, but if it was anything more complicated than stop or yield she didn't have a clue. But she was even more blank than that to other people. It was almost impossible to tell if she was happy or sad, if she was surprised or bored, if she loved you or hated you. I could tell, but then again, I was nuts. So was she. We were both nuts.

"But someone there betrayed us. We already know who, and won't be taking any action against her, but the data must be removed and all trace of it expunged."

"What does he know about us?" The voice of NotFlinn buzzed in my ear out of nowhere. Of course he was listening in. He always listened in when we worked. Flow and I weren't the only ones analyzing him. NotFlinn was researching. Every scrap of information was a lead, and our man on the web wanted to know. He wasn't in this business because he really cared about our cases; he just wanted to know. If he could turn information into food he'd eat it a hundred times a day and never touch a scrap of meat or vegetable as long as he lived.

"I doubt he knows about you," Flow subvocalized to him and then said, nearly cutting Calhoun off, "We're not hackers, Martin. We can't do that kind of work. Morden here is a consulting detective. We talk to people."

"That's what I need!" He said adamantly, or at least Flow told me it was adamant after I had explained the exact way the veins in his forehead popped out. "Someone to talk to people. Interview people at the Icomde without letting them know you are. Figure things out. Get the story about what happened. Find out where that file is. Once we get the details, my own hacker friends can to the rest."

"If I don't do it first," NotFlinn buzzed.

"Very well Martin," Flow said after only a moment's hesitation. Even the hesitation was part of the show. "But do you really want to discuss the details here? And look, your burger has arrived."

Calhoun erupted into a display of delight as a steaming plate of stacked meat and bread was placed before him. I couldn't stand to watch people eat; not even Flow. There was something about the way their neck and cheeks deformed with every slosh of food matter shoveled into their folds of flesh that made me nauseous. I turned to look at Flow, thinking that excusing myself from this biological display would be forgivable.

"I am almost convinced that he's the one that Willard needs to be afraid of," she said to me.

"Almost? I thought it was pretty damning from the get-go. He wants Willard to disappear alright, but he's the one who will be deciding what that means, and it probably has something to do with moving his body parts as far away from one another as he can get them."

"This guy's a nobody," NotFlinn chimed in. "He's got nothing on him. A middle man. He doesn't believe what he's saying because he's not stupid either, but he doesn't care. He's being paid to make sure you help whoever he's working for take this guy down."

"What do you know about Willard, NotFlinn?" she asked.

"I don't think his burger is big enough for me to tell you everything. I can fill you in later, but I can start by mentioning that he's recently gotten a few very powerful people believing that his ideas about the Poli-Sci Monopoly are their own ideas, and that's bad news for the P.S.M. It's one thing to convince people you're right; it's another to convince them

that your ideas are the ones they came up with all by themselves. That's real power. I don't think it takes a magnanimous leap to say that whoever Calhoun is working for is tied up with the P.S.M."

"I say we take the job. We can make up our minds what to do with what the job gives us later."

"You can't turn Willard into the P.S.M!" NotFlinn shouted, though to anyone sitting two inches from my ear it may have sounded like rather quiet fly buzzing. "Do you know what a huge crime will be committed if that happens? I am not talking about murder! I am talking about the first amendment!"

"Settle down, NotFlinn," I studied Flow, half because I couldn't stand to watch this guy devour his lunch, and half because I wanted to know what she was thinking. She was worried. She didn't like working for this guy, or being caught up in things so damned political, but she knew that this was a big chance to do something actually important for change. I didn't know how I knew all of that from looking at her; I just did. I wondered if she'd be able to get anything like that from looking at me. Yes, I got her, but I wasn't sure if she really 'got' me. Maybe she just kept me around because she needed someone who 'got' her. One sided relationships sucked.

Eventually he tried to talk while eating, which I found unbearable. Thankfully Flow knew it and didn't expect me to watch him. He had already dealt his hand anyway; there wasn't much more to be psychoanalyzed.

“We can play it by ear. I cannot expect specific results from you, because we are unsure what specific results are even possible. However, we will gauge your efforts and compensate you accordingly. Why, for even meeting with me I can promise you at least 250 ICs.”

“Well that will hardly pay our rent for the rest of the year,” I said, focusing my eyes some distance behind his head so I wouldn’t actually have to see him, while still making it look like I was addressing him. “But two months isn’t bad.”

“Oh believe me that is the very barest, of bare minimum which you can expect. Shall we appoint a time tonight to reconvene, possibly remotely, and discuss your findings for the day? Say, eight o’clock?”

I managed to fix my eyes on the rather pleasant shape of a waitresses’ lower portion as she leaned over a table. Hind-ends didn’t have much capacity for emoting, so they naturally had a calming effect on my senses. I let Flow answer.

“Yes Martin, that sounds very fine indeed.”

She wrapped up the meeting, and then very skillfully convinced him that he was paying for our coffee without even asking, and got me out of there before I became a real basket case.

“Is this it?” I asked as we approached the corner of 5th and 40th. A strange form of transparent extruded polymers and crystallized silicon – most folks called it glass – was perched precariously at the corner, like it was about ready to roll away into the street and float off into the sky at the same time. It was hard to tell where it actually touched ground,

both because of the tree cover which still lined the front of the nearby terrace, and because of the way the form melted into obscurity the closer it got to the ground.

"I remember when this area looked like a slum," Flow mused.

"If that's so, then you're older than you look," I remarked dryly. "How is that anyway? You're not exactly a paragon of healthy lifestyle."

"It's because I never feel guilty about what I do to myself."

I was about to turn and head for the entrance, when I saw Flow take off in another direction. "What?" I said. "This isn't it?"

"It is. I need *good* coffee." Then I saw where she was going. I caught up.

"If you need good coffee we'll have to go to my place after this. The rat-piss they serve here is worse than the diner."

"I am certainly glad I am not you, Morden. You hate everything, and so you're always miserable."

"Well you're not exactly miss I-love-sunshine either," I said as I caught the door which she didn't hold open for me.

"Look, Icomde has a café too. That way you can enjoy your coffee and we can pretend like we're working, right? You can interview the barista, or whatever the hell they call the person who makes the stuff."

She stopped, looking longingly at the menu – which she had no doubt committed to memory ages ago – like a dope fiend craving her next fix. With a minimum of fuss I had her out the door again, following me back to the Icomde with a chip on her shoulder that could have sunk the Titanic.

“This way,” I said, leading her past those two iconic stone lions that had been standing there for over a century. It was very hard to ever get a feeling that a place was *old* in this part of the world. Here was one of the few places that managed it. I lead Flow around the dozens of seated bodies, reclined on steps where people just like them had reclined millions of times, heading towards the shaded area where the staggeringly contemporary intervened with the antiquated.

The way it dissolved in this direction made it difficult to understand where the terrace ended and the interior of the Icomde began; but it also made you not really care. It was also difficult to see where the people who came here to be at the Icomde began and where the people who were just loitering on the terrace ended. Again, I didn’t think it really mattered to anyone. The library and the Icomde were both public institutions, and no one really cared if they invaded eachother’s space. Not yet, anyway.

Here the sight and sounds, and *smells*, of people enjoying their lunches didn’t faze me as much. I knew Flow was oblivious to almost all of it; she just wanted her damned coffee. Soon the light canopy of branches gave way to a semi-translucent covering as we approached the counter of the Icomde-run café. I wasn’t sure why she took so long to look over the menu – it was exactly the same as the other place, and she always, always ordered the same thing. In a

moment she would touch her mobile to the counter which would instantly transfer the credits, and they would pass her an intricately engineered, painstakingly designed, abhorrently organic coffee-derived beverage, the name of which could be no less than five words.

She sipped at a huge cup of brown gravy – she could consider the swill coffee if she wanted, even before we took our seats in the most remote corner of the area we could manage. It was a good vantage point to watch the people go in and out via the terrace opening, some just looking for a little mechanically assisted climate control, some only interested in the delicacies afforded by the counter, and maybe even one or two people who genuinely wanted to enrich themselves by this fountain of culture. Whatever. I watched Flow as she silently took her medicine; she could down caffeine all day and never got the jitters.

“Not much to this place,” I said, craning my neck to look at the wall of glass before me. The whole building was transparent, probably to keep it from obscuring the view of the massive old library, though there was certainly enough of that to go around without having to worry about this little building upstaging it. I could easily see three stories above me, filled with tables and desks and lounge chairs. Wherever someone came up to the glass wall, their face to us below, it dimmed slightly and a display came to life, seen in reverse from our point of view, with a cascade of interfaces that deformed and slid to and fro at the user’s commands; fingertips hovering over the glossy surface. I figured that the day when they got the machines to respond reliably to proximity of touch rather than touch itself they finally became worthwhile. Otherwise they’d have to invest a small fortune in cleaning supplies. I was sure they still did; some people

never quite got the hang of it, and smeared their greasy hands all over the displays. I could see a few tell-tale signs of this on some of the walls. No matter how advanced technology got, they still couldn't make *people* better.

That thought drew me back to the lounge chairs, oddly colorful and plush in their world of smooth glass and polished aluminum. The people in this place were like visitors in an alien realm, and those chairs were the liaisons. No matter how *sufficiently advanced*, to use the old euphemism, the interfaces got, a good old comfy chair was as hard to make *better* as people were.

Part of the upstairs area looked like a museum; desks and shelves lined with relics of past decades, absurdly primitive and yet even I wasn't young enough to not remember a time when it was *all we had*. I spotted a few antique LCD displays, so bulky and rigid, held aloft from the desktop by a plastic stalk, forever locked to one size, one shape, and the only way to make them transparent was with a trick where a camera was mounted on the back. I couldn't see them from here, but I assumed they even had keyboards attached to them. Why anyone thought that simply modifying a typewriter into a computer input device was a good idea was beyond me. We may as well have been carving figures into clay tablets. And then, as if the keyboards weren't novel enough, I spotted someone actually using *paper*. The only places that still used paper were the old libraries that got grandfathered in, after paper products were outlawed. NotFlinn would say that the PoliSci Monopoly was behind that law. I assume he got that from Willard.

"Most of it is underground. That's where the bulk of the terminals are. But humans still enjoy natural light for tasks which don't involve backlit displays."

It took me a second to realize what NotFlinn was responding to, and then I remembered my throwaway comment a few seconds before I was lost to nostalgia. "You say that as if you aren't one," I replied smugly.

"What makes you think he is?" Flow's sense of humor was unflappable.

A few more minutes slid by calmly without much change in activity inside. I let out a sigh of restrained impatience.

"Ever been in one of these places before?" I asked Flow, speaking normally for a change.

"One of these places? I thought this was the only one," she said as soon as she could pry her thin unpainted lips away from the plastic lid. I could see the writing on the side of her cup from here: Made from 100% recycled material. Intended for single use only. Oh, the irony was suffocating.

"Oh no, not at all!" NotFlinn spoke up. "This was the first one though, built back in 2010. But now there's dozens of them across the country. I hear they've even put a few in Japan."

"Are you always listening in, Flinn?" I said with unhinged irritation.

"I'm not Flinn! And you can disconnect me any time you want." He hated, of course, when someone called him just Flinn, so I was happy to do so when it suited me. He never did tell us the story behind that handle.

"Yeah, but don't you ever get bored of constantly eavesdropping on two nutcases?"

Flow interrupted our unintended conversation with an answer to my original question. "No, I've never been inside one. But I take it NotFlinn has?"

"Only my local branch. I already have the floorplans of the NYC one though. It's--"

"Just feed us information as we need it. You know I can't memorize anything you say," I told him.

Apparently that was his cue to launch into a monologue. "Here's what I find odd about this whole situation. So this Calhoun guy says that this Icomde has information on Willard. That's just bizarre. As much as it is to be venerated as a paradigm shift in public information access, it's still just a writing lab with a publishing center. Back in the old days that meant that they printed books, but now it just means they have a staff who help people get their work presentable for digital distribution, since most books have gone electronic and the Icomde is supporting that. Now, maybe Willard has friends here and he needed them to get in touch with him in the physical sense. But if that's so, why would he have a data file with the information that could kill him sitting around on the harddrive on a computer in a public writing lab? It makes no sense."

"No, you're right, it makes no sense." Flow said in her usual bored tone. "But something's going on here, and it suits us to figure it out, doesn't it?"

For once the three of us were in agreement. "NotFlinn, are you in any kind of communication with this Willard?"

"Oh, no way. He's way too paranoid for that. I'm just a hobbyist, remember? It was only an accident that I got mixed up with you detective sorts."

I nodded. Not Flinn didn't like admitting when he couldn't do something, so I figured he was serious. "Is there any conceivable reason why this Icomde would be involved?"

"I'll try to figure it out. I'll let you know if I think of anything."

"We'll keep the channel open. But we're probably going to split up, so I hope you don't mind listening to two conversations at once."

"I don't have wacked out brains like you two, but I'll do my best."

"Shall we get on with this?" I said, impatient.

"Mm," was all she replied as she tossed the still half full foam-plastic cup into the waste basket. Some things *never* change.

"You spent at least .5 IC on that drink, and you just throw it away half done?" I said in a scoff, more interested in taunting her illogical reliance on the beverages than her actual waste.

"If we had gone where I wanted, it would have been worth the .5, and I would have finished; but no, you wanted to go here, and so now it's your fault that twenty seven millimeters of coffee and soy product are now residents of the wastebasket." She stopped, and lowered one eyebrow just a tad. "And how did you know, anyway?"

"The level of exertion as you heaved the cup airborne. Way the cup arced through the air on its way to the basket. The distinct thud as it made contact with the plastic lining. All very tell-tale. But most of all I know how long it takes for you to drink a medium, and you finished exactly two minutes too early."

"The world is an open book to you, isn't it?"

"Yeah. And I know all of the nouns and verbs – too bad I'm lost on the grammar."

The entrance was worked into the edge of the old terrace brickwork, and was like a distant echo of the main entrance to the library that loomed over it. It was a curious gesture, striking me as both mocking and venerating at the same time. Going inside gave the odd sensation of being embraced by the ground while translucent sheets of structure hovered effortlessly above us. As transparent as the building seemed from the outside, once inside I had a feeling of being wrapped in something dense and tangible, though I couldn't put my finger on where that was coming from. Maybe it was the cascade of images and information that flowed gently around the perimeter of the enclosure on those glass interfaces I had already seen from the outside.

Unlike the interfaces upstairs, these were always on. I assumed that a lot of it was realtime news feeds, coming in from thousands of news sources across the planet. A few screens showed conversations however, scrolling chat logs, possibly informative debates or possibly mindless banter. Not all of it was text though. Dozens of the displays were animated, some showing video broadcasts, others animations, some music videos, and even a few sports broadcasts. I shifted my attention to the people around me. Some were sitting, others standing. Some were stationary, their gaze locked onto the displays, others were walking, browsing. A chance glance at a nearby sign informed me of how to connect the audio feeds directly to my earpiece, or how to download any of the broadcasts directly to my mobile. The former was free to guests. The later required member authorization.

I soon forgot my own contemplation as my gaze became fixed on an exhibition which took up the center of the ground floor. There was a glassed in area; probably sound insulated as I couldn't hear even a faint murmur of what was going on beyond, where a group of people seemed absolutely entranced by what one other was saying and showing them. The cascade behind him was interrupted by the flow, instead displaying various diagrams and depictions I couldn't even guess the nature of. From the way he was gesturing and moving around I could tell that he felt his entire livelihood was on the line at this moment. I could only guess that he was presenting some invention to potential investors. Without thinking I checked my mobile for public broadcast bands, to see if I could listen in to what was so important to soundproof from everyone outside, but saw only locked frequencies. So we could look but not hear; fine, have it your way.

There was a desk nearby where a woman sat, and Flow was already over there talking with her as I took the place in. I shifted my attention to the conversation playing discretely in my ear, as I casually fixed my eyes upon the seated attendant.

"... oh not at all, you see, the Icomde isn't just about news and writing; we support the visual and performing arts as well. Not only do we have our terminals equipped with high fidelity wacoms and wavetables, but we have actual physical facilities for painting and illustration, as well as recording equipment and environment. We even have practice rooms for people who have neighbors with delicate ears."

"Paradise, isn't it?" NotFlinn buzzed in my ear, interrupting the sales pitch.

"Guess for an information addict like you," I subvocalized to him, and then, "not to play captain dummy or anything, but what the heck is she talking about?"

"A wacom is an electronic interface for illustration. You can paint into the computer just as you would with a pen or a brush. A wavetable is a method of music composition using a library of pre-recorded note samples. I think it should be all anyone needs, but the Icomde tends to also bend over backwards to accommodate the old ways of doing things, for people who still think that they're good for that kind of thing. They even keep a collection of DTEs upstairs."

I knew DTE – dead tree edition, affectionate slang for 'a book.' "Flow, we just need some computer access. Don't make her think that we're ready to sign her into our wills."

She conveyed my thought to the clerk, as if it had been her own. The girl replied, "Oh yes, anyone may access our services on the sub-1 level. We actually offer most all amenities present in the design hubs on this floor, but it's all individualized and not conducive to collaborative projects. For that, the design pits excel."

"So if my friend and I want to work on something together, we have to rent a design pit?"

"No, not at all, but you'd have to work just as you would if you were using two separate terminals in separate rooms. The pits offer complete synergy of function."

"Morden?" She buzzed in my ear. She couldn't buy a toaster without my say-so in the matter.

"What?" I replied, as if I didn't know what she was asking.

"I thought you were listening. What kind of membership do we need?"

"We're not here to design anything, Flow. The public terminals will be fine. You should know that."

"As soon as you get tired of being in charge, let me know. I'll be happy to make decisions then. But if that's the case, you won't get a say anymore." "I see. Thank you. We'll just have the free membership then – for now."

"Very well, I just need you to..." I stopped listening.

"Flow, ask her if anyone in particular ever uses this place. Noteworthy people. Celebrities. Not movie stars or BS like that, but important figures in the media."

She asked, though she phrased it far more eloquently than I did. The girl at the counter seemed irritated at the question, taking a 'why should that matter?' stance and fed Flow some line about various news anchors and journalists who have visited.

"I am afraid she's not going to just come out and tell us if Willard has been here, Morden," Flow said to me even as the girl rattled off her recollections of people who she thought were noteworthy.

"Right, but even that tells us something. Finish up and let's get to work." She completed her transaction with the clerk and then turned to me, addressing me as if it was the first time we had spoken since she left to go to the counter.

"Morden, mobile."

I pulled the device from my pocket to see a message glowing on the display, asking for identity confirmation and acceptance of terms for membership in the Icomde. I glanced at the 'Yes' box and the retinal scan opened up all the access filters, allowing them access to my identity-packet, or IP. In theory, it was the IP of Willard that they had stashed away here.

Flow approached, putting away her own mobile as she did. "I think we can do everything we need on sub-1. Please, let's not go poking around on the top floor finger painters or wherever they keep all of the children who want to play at making music."

"Do you have that much contempt for people who prefer to still use physical objects?" I said in my best attempt to sound like I was teasing, even though I was actually annoyed. I knew she wouldn't be able to tell.

"It's wasteful. The chemicals used to physically create images on another physical material are noxious, and require ventilation that puts an undue strain on the environmental control systems of the building," she said, like something straight out of the PSM's manifesto.

"Maybe they, I don't know, open a window? Why else would they be on the top floor?"

"And the amount of materials per square foot needed for certifiably soundproof spaces needed for recording studios would make that floor cost more than two of the other floors combined."

"Maybe that's why they put it three levels underground? Come on Flow, stop being spiteful of the creatives."

Her usual blank expression had a hint of frustration in it, but it only lasted for an instant. "Their private database now has our IPs." "Not Flinn," she continued, beginning to subvocalize, "use our data as a signpost. If you can find it in their systems, it might lead you to Willard's. With any luck you can detect it by remote and we won't have to do any work ourselves."

“Does this mean I get paid for the job instead of you?”

“You’ll get your cut,” she said, before looking up and me to say, “Let’s go.”

We walked slowly down the sculpture of glass and aluminum that connected all six floors, finding ourselves in an open space with controlled lighting, a high ceiling, and a low murmur of activity throughout the sleek, polished scenery. The arrangement was similar to what I saw in the floors above, but much more densely packed, no orientation concerning the edges as they were merely blank walls, and many, many people busy at terminals. I tried not to be too nose-y as we crossed the floor to an uninhabited spot, but being nose-y is my job, so I couldn’t help but notice that there were almost no trends in activity.

Here the cascade which surrounded the perimeter was opaque – it had to be since we were underground, and it split off from the wall here and there to fold over into various shapes that eventually became places to sit and interact with the displays on a more ‘intimate’ level. I watched as a man sat down before a blank portion of the continuous surface, and interfaces sprang to life both where the wall folded in to meet his fingers and at eye level. A few twists of his wrist later a series of images spilled out over his view, each one a blur of color until they came to be still. He was reading a comic book. The more things change, the more they stay the same.

“Ah, here’s something,” NotFlinn said, “A trail of breadcrumbs at least. Working, working.”

“What kind of breadcrumbs?” was my partner’s reply.

"Usage statistics. Login data. Stored keystrokes."

"They'd keep that kind of data onhand?" I asked, a little baffled that they'd log keystrokes. "Is that even legal?" Of course the term wasn't even accurate anymore, since it referred to the now scarcely used input devices of old, but the term stuck even when you were talking about a simple log of every input command of any type the user committed to action. In another ten years no one would even remember where the saying came from. Sort of like how people would "dial" on a phone. I wasn't even sure where that one came from.

"It's legal if the PSM says it is," was NotFlinn's reply.

"Will you cut with the conspiracy theory crap?" NotFlinn may have thought that Flow was irritated, but that was her teasing voice.

Ignoring it, NotFlinn continued, "Hey, do you guys want to be full members for a day?"

"What have you got?"

"There's this old promotional thing in their system from around this time last year. Noone at the desk could trigger it, but with a few illegitimately gained permissions I can tag both of your accounts, so that one of the design pits downstairs will recognize your IDs and think that it's your turn to use it for this hour."

"Won't that get us kicked out?" Flow was a pillar of optimism.

“Nah, it will look like a computer glitch. Just play dumb. But as long as you act like you’re doing exactly what you should be, no one will question you. That’s my motto!”

We turned around and went back to the stair. The floor below was similar, but much more organized and had a hush about it. It seemed counterintuitive at first since this was supposed to be the collaborative area with ‘design pits’ but then I realized that the same soundproofing I had seen upstairs with the presentation must be at work. The floor was divided into partitions of various shape and size, some of which were opaque to eye level and some of which carried on up to the ceiling. I then realized that privacy glass was at work here, and that the users within could no doubt set the opacity of their enclosure. They could probably see out just fine.

I didn’t know where I was going, but I kept moving. Right on cue, NotFlinn buzzed in my ear, “Take this one. It won’t be occupied for another four hours.”

I touched the swivel panel and it gave way effortlessly. I held it open to allow Flow passage and then spun it shut just as gently. I saw that where my hand was touching it a glowing display had revealed itself, resembling a slider. I pushed it upwards, and a message appeared showing that the privacy glass was now set to full. I could have also told it to make the opacity two way, but I left it in a state where we could observe what was going on outside by standing up.

Flow sat. As soon as she sat various welcome messages appeared on the surface before her, as well as directions of use. She pulled out her mobile and set it right on the surface, the part that curved forward and a keypad would appear

if needed. An outline appeared in a pale blue and various applications began to sprout from it like vines. For an instant I wondered what it would be like to spend time with a woman who was thrilled by pretty things, as I watched Flow sit there with no discernable interest in the artistic nature the display was set up. I didn't think about it for very long.

I went to sit down next to her. Similarly the display lit up as soon as weight was applied to the chair. "So," I said watching the presentation, "What's so synergistic about these pits?"

Without speaking she raised her hand to the display before her, and gave one window a gently tap with his fingers, hovering a centimeter above the surface. As if it were spring-loaded, it flew across the seamless gap between her space and mine and slowed to a halt right in front of me. "Ah," was all I could come up with. "That's easier."

Then I saw what the window was. NotFlinn's usual animated avatar – a lizard man with a Mohawk of colorful feathers, was peering at me in profile. "Hi NotFlinn."

He didn't exchange pleasantries. I couldn't help but laugh as the lizard man began to speak in NotFlinn's voice. "He's been here. In this building. I found access to their security video logs. I think I can... let me see. Decrypting, decrypting..."

"How many laws are you breaking, NotFlinn?" she said in the same tone.

"Laws that are worth a damn? Zero!"

“You don’t get to decide that.”

“Turn me in then.” I had no reason to be alarmed. Acting like this was how those two bonded. Or something.

I leaned back in my chair to see what some people were doing to one side of the room. There was a row of big displays, each six feet tall and about eight feet wide, arranged in aisles. Each one was a touch screen, and generated a view of a bookshelf. The people using them were scrolling along the shelves, zooming in and out, tapping books and having a virtual representation pull free from the shelf and spread open before them, where they could leaf through the pages or send it back to its place, only to push the image of the bookshelf around some more until they came to an edge and a menu popped up allowing them to choose a new section. Novel. I thought I saw a few of these on the upper floors too, but no one was using them, and there weren’t as many. It was one way to get your stacks into the library without having acres of moldy DTEs stinking up the place.

I indulged my curiosity and stood up. Anyone who didn’t have their privacy screen up wanted to be observed, anyway. There was a group of three in the pit beside me. It looked like they were pretty well entrenched. It was impossible to see where one workspace began and the other ended. One beyond was much simpler, and a rather impressive sight; I recognized their work, they were editing a waveform, but the display had completely wrapped around the perimeter of the workspace, meaning they were surrounded in 340 degrees – a gap for the door – with the waveform and accompanying manipulable notes. From the look of the two men, or boys, working on it I imagined they had just been downstairs playing and recording the song, and were not tweaking it.

My survey was cut short by NotFlinn. "Whoa, okay, this is messed up," he said in a sudden bout of panic so congealed it almost dripped out of my earpiece and down my neck. I sat back down at once and observed the reptilian cartoon, now positioned halfway between Flow and I. "I found the video logs alright, and it's like they meant it this way. Guess how many security vid logs are there in the database? There's like eighty of them."

"So?" Flow said, playing stupid for my benefit, maybe.

"So there should be more like eight thousand of them. And I checked a few others – they're completely random. Real security logs should be mind numbingly organized or they'd be useless. They just put enough in here so that any newb who looked in the folder would go, oh hey, de't'deet! Look a bunch of security logs! There aren't enough in here to even be for a full day!"

"Actually eighty for a building this size would be around two days, fifteen hours–"

"Whatever. Look, here's the best part. The operating system records all sorts of timestamps on the files. Date accessed, acquired, completed, received, processed, authenticated, authorized, imported, exported, yadda yadda, but guess what – for video files only 'date created' is displayed at the standard observation level, and that is set to be two days ago. All of the other timestamps? Totally out of whack. This file's been bouncing around from place to place for weeks, if not longer. I wouldn't be surprised if the whole thing is just a c&p job."

"Can someone alter timestamps?"

"Of course they can alter timestamps! I could crack open the file right now and change them all! Oh, read only? Read-only my ass! Files haven't been read-only since the old days when we kept information stored on little bits of reflective foil on fragile plastic wafers!"

"So what does the video file show? Willard breaking in and abusing the computers? Are they trying to frame him?"

"No, worse than that. They show him meeting with the Icomde's vice-chairperson!"

"How is that... oh."

"They're not after Willard at all. They're after the Icomde. If they show that he's in cahoots with the higher-ups of this place, then whatever they pin on him they can also pin on Icomde, and you can bet they have much deeper pockets for a settlement."

"Not Flinn, I am surprised at you," Flow spoke up, surprising me. "I doubt they're after a settlement at all. Whoever isn't after Willard isn't after cash for slander. They want him silenced for good. They'll want the same for places like this who let people like him thrive."

"So what do we do?" I asked.

Flow answered. "We bail out. This whole job stinks. It's like a double or a triple setup. We're private contractors. It's in our contract that we can end the contract for any reason. We only forfeit pay." As usual Flow was taking the responsible attitude. It's too hot. Don't touch it. Don't get drawn in.

"I think we should dig deeper." I said, turning to look at her for the first time since we sat down. "Let's get ourselves a new client. State the case to the director of the Icomde here and see if he won't let us take it up for him. He's got a lot to lose. Chances are he doesn't even know what's going on. He may not be able to pay as well as Calhoun, but you know me. I'd always rather work for the good guys."

Always the skeptic, Flow answered, "How do we know these are the good guys? How do we know that by bringing down the Icomde, whoever hired us isn't doing everyone a favor?"

And NotFlinn answered for me. "We only know what they let us know, Flow. That's how it will always be. We'll look back on this and all sources will point to us making the wrong choice. That's why we have to depend on what's in our own heads to make up our minds, and not what's force-fed into our brains whenever we connect to the local channels. Back in the old days everyone believed what was so because some guy in a robe told them that's what God said. Well now we've got some guy in a suit saying the same thing, but now it's what Science says. We traded one tyrant for another, but this new tyrant changes his tune whichever way the wind blows. Well I don't blow in the wind, and neither do you."

"Ah, you always present such lofty ideals. Are you trying to impress me, NotFlinn, or did Willard connect to our private net and you're trying to impress him?" She said sarcastically.

NotFlinn piped in with his usual impeccable logic. "Come on. Do you possibly expect me to believe that the guy in the burger joint was the good guy? He was ugly. Good guys are never ugly. They're pretty, like you and me, Flow!"

I answered for him. "You have no idea what she looks like, Not Flinn. And you should know, I am the one that's pretty."

"Charming," she said, finally turning to look at me.

"Don't be obtuse, Morden. Like you said yourself in the diner, it'd take me ten seconds in an image search to track down a picture of our lovely Florence Point – in a bikini no less!"

I winked at Flow. Knowing NotFlinn, he had taken my hint and fired up photoshop on the spot. "Alright NotFlinn, what's the director's name? Connect me to him right now." One of the benefits of having a personal techie on a private line was never having to dial a phone. Dial – there was that word again. Where did it come from? What did an ancient device for telling time have to do with communications?

"Miss Alleture, and dialing."

Dial a phone. Dial tones. The sound of ringing at the other end. Antiques. What did the sound even mean? It was just the noise you heard before the person you're calling hits the accept button, or lets their line of sight pass over the accept box, or mutters it, or even thinks it; depending on how wired they were.

"NYC Icomde, Lacy Alleture speaking."

I could talk to people more easily if I couldn't see them. But I could hear it in her voice. She wanted to sound cheerful; this person calling could be a new member, or a perspective member. Maybe it was the press wanting to do a story about how successful this place was. But it wasn't anyone she knew. She would have the call ID'd at once, and we weren't willing to pay the fee to keep our IDs totally invisible. Besides, no one picked up IDless calls. There was uncertainty in her voice; she was worried about something.

"Lacy, this is Isaac Morden, PI." Flow taught me to always use a person's first name if they gave it. People like the sound of their first name. "I am sorry to spring something so urgent in front of you so abruptly, but I have a hard time with not getting to the point. Some unknown person or organization means ill against this institution, and I've pretty much decided to defect to your side. What do you say?"

She was silent. Flabbergasted probably. Flow was probably angry at me for not being more delicate, and NotFlinn for not being more covert. I would have been angry with him for being too secretive and with Flow for sugar-coating everything.

"You're a... private eye?" She was worried. Scared maybe. She also suddenly sounded much younger. I caught her off guard alright, and then probably sucker punched her. But it would be for the better. She'd be used to just getting things straight from me from now on. Flow could sugar coat and NotFlinn could obscure later.

"Yes. That's what PI stands for. Though, it's kind of funny since there's no I in eye, but there is one in investigator, which is what PI really stands for."

I gave her a moment to see if she was going to have anything else to say. She did. "What are... what are you talking about? Means ill to us... what's going on?"

"We should meet face to face and talk about it." I didn't want to tell her it was so I could observe her and feed Flow information and let Flow handle her delicately. I think my blunt nature was too much for her.

"Oh, okay... my office is... well you know how to find...?"

"I think I can find your office, if you're in it. We're on sub-2. I'll be there in a moment." I closed the connection.

"Isaac Morden, Private Investigator, Hero of the Ages, Frightener of Children," Flow said in her usual deadpan.

"Hey, how was I supposed to know? And what's that got to do anything? I doubt she's a day older than NotFlinn."

"No way man, I've got ten years on her at least. And I am no social giant, but even I know that's not how you talk to a girl."

“Right, you guys can finish roasting me when we’ve saved the world again, kay?”

NotFlinn’s image vanished from the display, and then the whole thing went dark. We let ourselves out, and then oriented. The staff offices were at the far wall of this floor, where we would find Miss Child Director.

I could see her get up as she saw us approach. It must have been Flow’s trenchcoat. Everyone knew that PIs wore those. “Hi, come in,” she said as she opened the glass door.

The name Lacy would have fit the panicking girl I heard at the other end of the line, but not this woman, even though the voice was the same. She had her totally black hair tied up tightly behind her head, and small wireframe glasses set in front of her slightly Asian eyes. She sat at a desk that was as sleek and minimalist as everything else in the building, though her figure was anything but minimalist. The desktop was animated with a blue sky and light clouds slowly moving across it; which told me just a little about her personality. “I usually think up a whole script of what to say beforehand, but I’m afraid you’ve got me on this one. Can you tell me again, more slowly, what’s going on, and how I can help?”

“We’re not here looking for your help. We’re here to help you. Though we’ll need your help if we’re to help you, of course.”

“Morden, let me,” Flow said, using her, ‘I am talking in front of another female’ voice, which was much different than the one she used with Calhoun. She explained to her the situation with Calhoun and Willard, and then had NotFlinn bring up

what he found in their systems on her terminal. We even watched the video NotFlinn found. Throughout all of this, she was mostly silent as we told her of the admittedly very brief happenings of the day. She didn't even seem worried or alarmed that NotFlinn was able to hack them so easily. But then, she spoke."

"I am not sure how good this guy who isn't Flinn is supposed to be, but I'm told it should be very hard to break into our systems. And they are organized nothing like these. It's not just the folder with the video logs that are fake... everything in here is. It's sort of like the file structure we have here, but it looks like what the free users see. The actual file structure is much different. It was designed to fool *you*, or people like you, and I guess it didn't work."

"Doesn't need to work on us," I said. "Just on whoever'll be doing the damning. And even if it does go to court, you know how braindead juries are. Everyone on there is exactly the kind of person who was too stupid to get out of it. They won't even know what you're talking about if you try to explain it away with technical jargon."

"But I don't see why this is worth anything. I've read Willard's editorials and essays. He's interesting, but hardly... I mean, why would it matter if he was seen talking to anyone in our upper management?"

"Pin the tail on the donkey. It will mean whatever they want it to mean. Any link, however tenuous, is all people like *them* need. They'll twist it to mean whatever they want and then pat themselves on the back. I've seen it happen so many times. The question is not why anymore, or even what they plan to do. The question is how to get you out of the targeting recital."

She shut the display off. "I don't see what the point is. If it is like you say, and they want to shut us down, what can we do? I mean, they'll find a way. It may take them ten years, but they'll find a way."

NotFlinn spoke up, but this time Lacy could hear him too, as he was broadcasting out of her terminal speakers too.

"They've got the media corporations in their pocket. They've got the publishing houses too. And the universities... good God do they have the universities. Control the information and you control the people. Well, this is the only source of information that they don't control yet. Sure, they'll never be able to control the entire 'net. But they don't need to. It's a net, it's scattered, diffused. But in Icomde it's taken a shape, it's an institution people can get behind, and that means it's something they want to control. Last millennium it was Jerusalem you had to control. Now it's the mobile inside everyone's pocket."

She gave a fatalistic half-smile. "I see you guys have a Willard fan on your hands," she said. "That's one of his favorite quotes."

"Really?" NotFlinn said, a feign of surprise in his voice. "Maybe I should sue – he had to have stolen that from me!"

Flow and I sort of faded into the background at that point. NotFlinn's reptilian avatar appeared on Lacy's desk and the two began a very involved conversation on all things Willard. She was bluffing when she said she thought his work was 'interesting'. What she meant was 'I'm obsessed with it.' And it seemed to me that NotFlinn was quickly becoming

obsessed with her. Flow eventually turned to give me a look which I knew to mean 'and we're here... why?' but I just smiled and kept listening.

By that point she had the vice-chairperson and the national director on the line, who was out of town on extended leave and had left Lacy pretty much permanently in charge. The NYC branch was the headquarters branch, but it seemed that this guy was going all over the country getting new Icomdes set up.

They were doing their best to, to be blunt about it, make it seem like Flow and I were crazy. I felt like my head was going to explode, but at least at the end of the conversation, everyone seemed pretty sure that the worst they could do was bring up a frivolous lawsuit against them. I tried to pipe in a few times, but this wasn't detective work anymore. It was pretty clear that this was NotFlinn's game now, and it had been from the start.

Ever so discreetly, I thumbed my mobile to disconnect NotFlinn so only Flow could hear me. "So how are we going to deal with Calhoun?" I asked subvocally.

"Do you want him to pay our rent for the rest of the year?" was her reply.

"I guess we give him exactly what he wants. If his people planted this here, then it would be pointless for us to not present it to him on a silver platter. If we don't do it someone else will, and then someone else will be involved."

I still wasn't sure. Still, the fact was that they, being whoever Calhoun worked for, were testing the waters, but they'd find piranhas. It was naive of three of us – and even Calhoun, to believe that the Icomde would be so susceptible to this

kind of thing. They built their entire concept around deflecting the attacks of those who would shut them down or control the flow of information. I just wasn't optimistic about it. But then, I never was.

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The digital display on the wall flicked to 1:59 am. I started at it with restless eyes. We had met with Calhoun alright, and gave him exactly what he wanted. We told NotFlinn and the Icomde people, of course what we were doing, and they agreed with our logic. But it was in their court now. Well, theirs and NotFlinn's anyway. I spent some time today wondering if this meant he'd suddenly become scarce, if he'd become Icomde's man on the web rather than ours. But that wasn't the only thing that had been on my mind.

"Flow," I said into the darkness with my head propped up against the folder arms behind it.

I heard her stir nearby, and mutter a "hrm?"

"What if going to the Incomde Director was exactly what Calhoun wanted us to do?"

I heard her shuffle around to prop herself up, and let out the faintest of sighs. She always got emotional when she was sleeping. "Why, to make sure I didn't get any sleep?"

I ignored her comment. "What if it's a decoy. A red herring. A..."

"Are you looking for another analogy? May I suggest a moose call?"

"What if Willard was working for Them all along? What if his job was to create a caricature of the type of person they are afraid of, so that he can be shown to be a villain? I mean, we couldn't see his face in the video... what if..."

"Wait, what did you say?"

I blinked and looked over at her, barely making out the shape of her thin pointy nose in the darkness. "We couldn't see Willard's face in the video."

"Why did NotFlinn tell us that it was Willard in the video? How did he know it was him? Noone knows what Willard looks like."

My brain did a summersault. "Maybe that was the filename? I don't know."

"The NotFlinn I know isn't that careless. And for that matter, he doesn't make things this personal. He seemed awfully close to this."

"Are you suggesting that..."

"We trust him, and we have very little reason to. But we both do because he 'seems right' and we both see ourselves as such perfect judges of character. But we've never even seen His face."

"This is crazy, Flow. Are we supposed to get paranoid about NotFlinn now too? Is he in on all of this?"

"Maybe he planted those videos there, right then, right as he was entering the systems. What if he is part of all of this. Why else would They come to us. This could have been in the works for years."

"Or not. Maybe they came to NotFlinn recently and..."

"Or maybe NotFlinn works for Willard and this is part of his plan to bring THEM down. They go after him, he lets them think they've got him, but is really drawing them into a trap."

I unfolded my arms and let my head fall back on the pillow. "I am not going to be able to sleep tonight, now."

"No, neither am I."

"Damn you," I said, turning to look at her once more.

"We'll find out later," was her usual reply to me telling her to go to hell.

"We shouldn't have gotten involved. Should have pulled out when we had the chance."

"Wouldn't have mattered. NotFlinn still tipped his hand."

"Yeah, but still. Maybe I'd have fallen asleep tonight before I figured it out."

"You figured it out? I thought that was me?" I could usually tell when she was being funny.

"I would have figured it out sooner if we hadn't spent all of that time talking with the Icomde people. If you had just listened to me, we'd have gotten to the heart of the matter instead of running in circles."

"Yeah, you're a real Cassandra."

"Does that mean you'll never believe me, no matter how many times I'm right?"

"No, it means no matter how many times I do believe you, you'll only remember the times I didn't."