EMERGING PUBLIC

THE PUBLIC LIBRARY'S ROLE IN BUILDING COMMUNITY

NICHOLAS BRAAKSMA

EMERGING PUBLIC

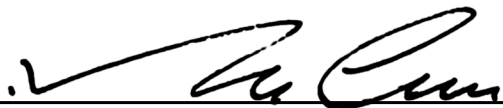## THE PUBLIC LIBRARY'S ROLE IN BUILDING COMMUNITY

NICK BRAAKSMA

SIGNATURE PAGE

A Design Thesis Submitted to the
Department of Architecture and Landscape Architecture of
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Nicholas Braaksma

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Michael Christenson, Primary Thesis Advisor

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Michael Christenson, Thesis Committee Chair

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THESIS
ABSTRACT
STATEMENT

The library, as the architectural medium between people and information, is being challenged. Information continues to become easier to access, decentralized from its architectural counterpart. The public library no longer seems necessary to provide information to public. Citizens can view a virtually limitless source of information on a mobile device in most urban spaces. Yet, the explosion of information through the internet creates its own problems, lacking the editing and credibility inherent in most physical media. In the flood of information, the need for context becomes paramount for understanding. Providing this context can bridge the gap between information and engagement, a problem the internet, for all its collective creativity, has not been able to address. The public library already shows incredible promise for establishing a thriving public realm, marrying the access to information with the public space necessary for democratic activity. By expanding the cultural context for information through architecture, the public library can contribute a community's public realm.

The rise of digital information can easily lead to the assumption that physical media is no longer important. Alternately, purists may claim that physical artifacts hold value over their digital counterparts. In reality, neither physical nor digital information exist independently; both influence and shape the other. Augmented space combines digital and physical information to provide a dense layer of cultural information reliant on both forms of media. Augmented spaces can be seen where digital information, such as tagging, already exists and informs movement through physical, urban areas. Recent examples include the popular mobile game, Pokemon Go, where gamers move through physical space, dictated by digital prerogatives. Designers can be mindful of both digital and physical media by providing cultural context for information through architecture. Library architecture can anticipate the future of information, while cultivating the public realm, by creating cultural context for information.

PROBLEM STATEMENT/QUESTION

HOW CAN ARCHITECTURE CREATE **CULTURAL CONTEXT** FOR THE INFORMATION PRESENTED IN **PUBLIC LIBRARIES** THROUGH PHYSICAL AND DIGITAL MEDIA TO ENCOURAGE **COMMUNITY** ENGAGEMENT**?**

KEYWORDS

Public Space

Public Sphere

Information

Cultural Record

Community Engagement

Physical Media

Digital Media

Augmented Spaces

THESIS
NARRATIVE
OVERVIEW
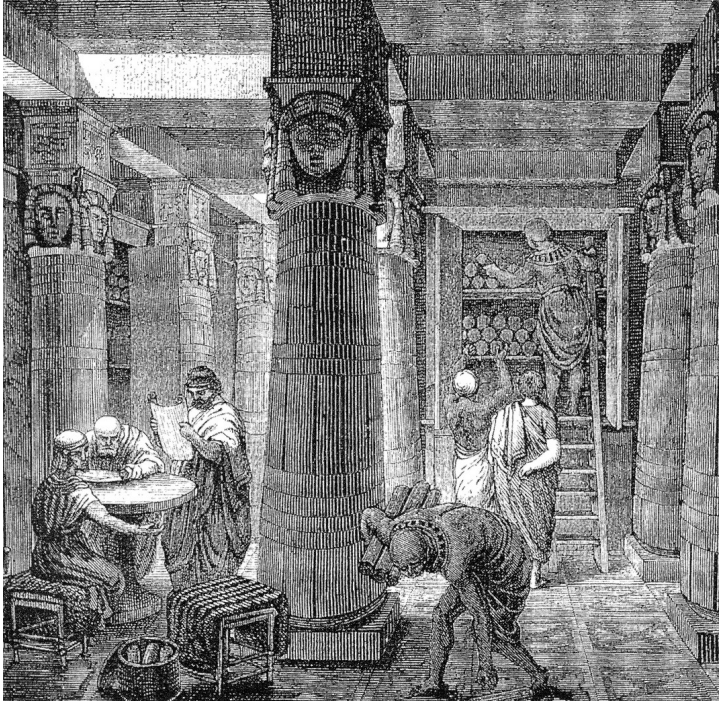
01.
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The old: Artist rendering of the Library of Alexandria, based on archaeological evidence (Encyclopedia Britannica)

After centuries of stability, the last hundred years have brought drastic changes to the function of library architecture. Initially, libraries stored written records. Public libraries opened those written records to the public to provide education, asserting that an educated population is beneficial for communities. The Boston Public Library, the oldest municipal public library in the United States, declared its purpose in a stone inscription, "Built by the people and dedicated to the advancement of learning / The commonwealth requires the education of the people as the safeguard of order and liberty" (McCullough 2016 p.68). Library design has recently faced a renaissance of programmatic innovation, deviating from the Boston Public Library's specific goal. The introduction of the internet heralded a myriad of changes for the library, as information became easier to obtain. The stated vision of the Boston Public Library could now be actualized through the global internet. In many ways, the goal of the public library, providing information to the public, no longer relies on the physical library building to be achieved. Rather, citizens can access information in a variety of mobile and remote ways, from smartphones to laptops. Yet, libraries play critical roles in connecting and engaging citizens in democratic and responsible communities, beyond simply providing access to information. As of 2014, 91% of Americans believe that libraries are important to communities and 76% say libraries are important to their families (Pew 2015).
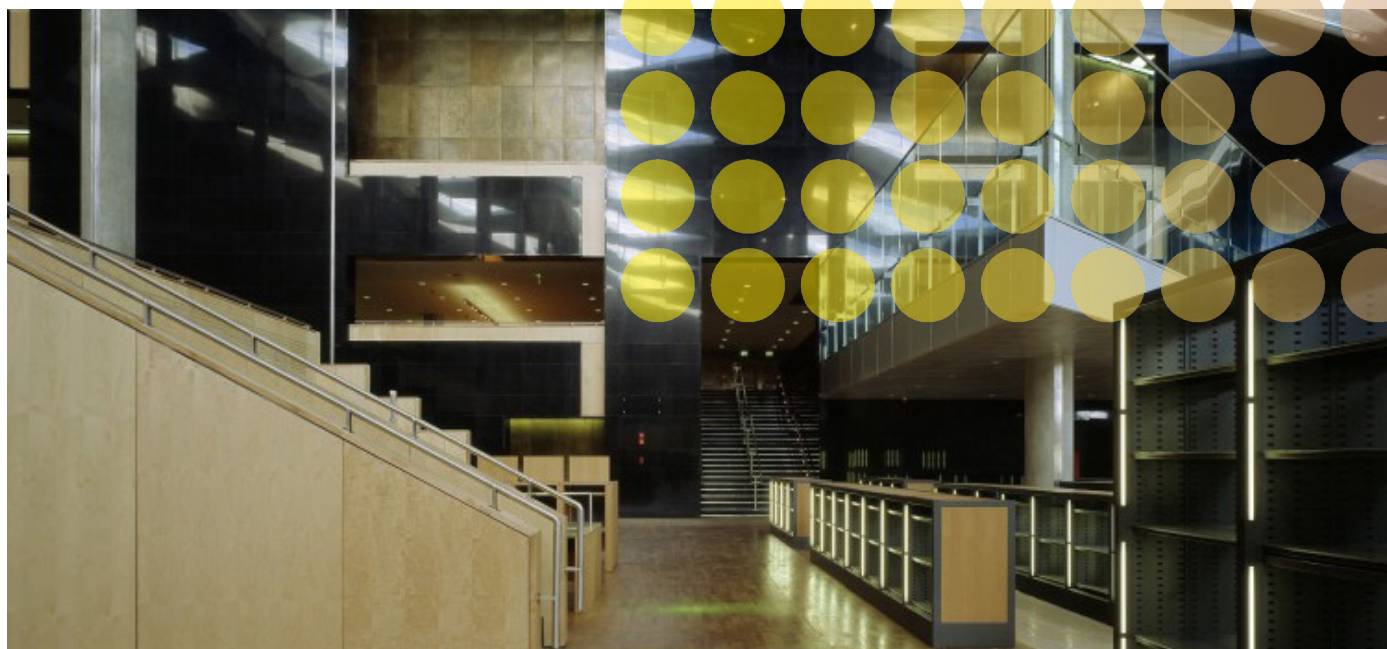
02.

The new: New library of Alexandria, designed by Snohetta

If the local public library closed, 65% of Americans think it would have an impact on their communities (Pew 2015). If more citizens were informed and engaged, communities would be healthier and more dynamic. Libraries can bridge the gap between information and engagement. Already, a correlation exists between civic activists and public libraries. Among Americans 16 years or older who reported working with fellow citizens to address community problems, 63% visited the library, compared to 40% who had not participated in addressing community problems with fellow citizens (Pew 2015). Additionally, 28% of these civic activists attended a meeting at the library, compared to 11% who had not worked participated in addressing community problems with fellow citizens (Pew 2015).

The proliferation of easy and remote access to information can lead to the assumption that libraries, as portals to information, are obsolete. However, libraries provide valuable cultural context for information that encourages community engagement. The cultural context can take physical, organizational, or situational forms, all of which provoke important architectural implications in a public library. This thesis will focus on how architecture can provide a cultural context for the information housed in both physical and digital resources. The public library will engage the community by expanding the cultural context for information through the diversification and production of the local, regional, and global cultural record. It will do this through the inclusion of recording studios, performance halls, film screenings, public art installations, environmental education, and augmented public spaces, producing a dense layer of cultural context.

THESIS
PROJECT
TYPOLOGY

03.

Public Library in Cueta, Paredas Pedrosa
(Fernando Alda)

Complementary to the investigation of public space and information, the typology for this project builds upon the public library. The typology itself conjures a mythos of books and wooden shelves, as legends of the library exist nearly as far back as libraries themselves (Wilkin 2015). Building on this rich history, the typology offers the unique opportunity to explore the role of architecture as the medium between the people and information. Traditionally, the public library acted as a portal to information. As the amount of information continues to grow, how can architecture provide cultural context for both physical and digital resources? This thesis aims to build upon the library precedent through the diversification and production of the cultural record, including spaces for supplemental, creative community functions.

Examples of architectural projects that show the expansion of the cultural realm include a recording studio in a public library, the incorporation of historic ruins in public library interior space (Fig. 3), a pavilion that requires knowledge of local climatic conditions to regulate environment (Fig. 5), a lighting art installation projected on the facade of a public library (Fig. 4), art that also functions as a children play area (Fig. 6), and space for live music performance in a public library.

04.

Dokk1, Schmidt Hammer Lassen (Adam Mork)

05.

Dixon Water Foundation Josey Pavilion, Lake Flato (Casey Dunn)
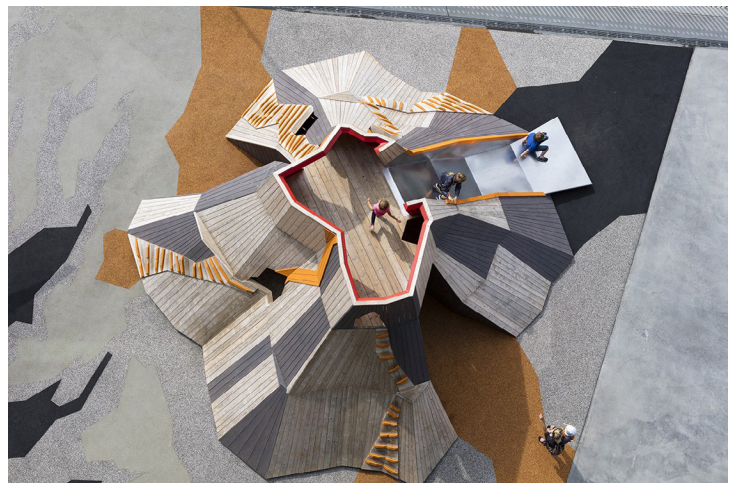
06.

Dokk1, Schmidt Hammer Lassen (Adam Mork)

THESIS
PROJECT
EMPHASIS

07.

Graffiti communicates with the public in an unofficial way (Spokesman Review).

The emphasis of the project is on the relationship between architectural context, the public, and the information provided by libraries – both digital and physical media. In the aftermath of the internet, digital enthusiasts heralded a future free of libraries; the liberation of information had reached its full potential in the social web. The defensive reaction cried foul, insisting the value of physical artifacts; nothing could replace the value of the reference librarian. In the discussion about the future of libraries, it can be easy to be polarized to one view or the other. Physical books are certainly less important for education than they once were, but the context for the ever increasing amount of information is more important than ever. The liberation of information that the internet provided came at a cost, "The key moment in publishing [books], however, is editing, and this is just what the hyperlinked web so lacks. Whereas once the right to publish text was fairly exclusive, and the mere fact that something was inscribed in print lent it some authority, the web and electronic pre-press opened the field to vastly more participants.

08.

Pokemon Go presents an augmented urban space (pokemongo_nyc)

09.

The Times Square Redevelopment designed by Snohetta shows a media saturated public space (MIR)

This of course drives the amount of information up, and the quality of any given piece of information down, ad absurdum. Finding and having information is no longer of much benefit unless one also has ways of knowing its reliability and reputation [...]

Among the strategies used to interpret the rising flood of information, the one of most interest here is context" (McCullough 2016 p.67). This thesis focuses on the ways to engage the public by creating and exploring the relationship between information and its architectural context, seeking augmented solutions that address both physical and digital media.

THESIS
PROJECT
GOALS

	Experience	Editorial	Urbanism
Epigraphic	Public	Public	Facade
Bibliographic	Individual	Public	Reading Room
Hypertext	Social	Varies	Ambient
Graffiti	Territorial	Contention	Transgression

10. EPIGRAPH, OLD & NEW

This model evaluates various factors of epigraphy, the study of purposeful inscription, displaying the different ways that the public interacts with information (McCullough).

There are three primary goals I am setting for this thesis:

First, I intend to propose an architectural solution that expands the cultural context for information provided in libraries. Expanding context is crucial to meet the expanding amount of information in a connected society. This project will examine the ways that architecture can provide that context.

Second, I plan to propose an architectural solution that establishes a way that digital and physical information can produce meaningful local inscription in augmented public space. This exploration does not pose digital and physical information as opponents, but rather seeks to unite the two media with the architecture as valuable cultural context.

Third, I hope to understand why public libraries are designed the way they are now. Historical and current architectural practices regarding library design provide valuable insight into the previous innovations in the long history of this typology. Understanding the history of library design is crucial to anticipate the needs of the public library of the future.

Official

Corporate identity
(symbolic)

Inscriptions
(commemorative)

News media
(incessant)

Tourist guides
(stereotypes)

Street signs
(utilitarian)

Construction tags
(coded)

Advertising
(obtrusive)

Graffiti
(defiant)

Cultural tagging
(social)

Unofficial

Temporary   Permanent

11. TOWARD A HISTORY OF AMBIENT INFORMATION

This thesis aims to find augmented solutions that produce a dense layer of cultural information. This model provides a framework for evaluating architectural solutions (McCullough).

Additionally, I intend to examine the following secondary questions through the architectural design.

1. Is there a difference between information and culture?
2. How can the public interior space and public exterior space be mutually beneficial?
3. How can a building address the needs of all members of the public?

4. How can architectural materials be used to encourage community engagement?
5. How can integration with the surrounding site and park encourage community engagement?
6. How can the iterative modeling process be used to represent augmented spaces that host both physical and digital information?

THESIS
USER/CLIENT
DESCRIPTION

Client	Public Client: The people of Spokane represented by the City of Spokane, Washington
Decision Makers	Representatives from the City of Spokane, Spokane City Commissioners would be the primary points of contact for the design team on this project.
Community Advisors	A public building of this scale will require relationships with the Spokane Park Department, Spokane City Planning, the Mayor of Spokane, the City Administrator, and members of the public involved in the planning process.
Users	The users of the architecture would be community members of all ages and backgrounds. Most active library users consider themselves lifelong learners and are interested in accessing information through books or computers (Pew 2015). Groups from a variety of backgrounds utilize the auditorium space for gathering. There will be several reference librarians and supporting staff to ensure full public library functionality.

13.

Official Spokane flag, 1920 (Spokane Public Library)

14.

Official Spokane flag, 1977 (Spokesman Review Photo Archive)

12.

Official Spokane flag, 1975 (Spokesman Review Photo Archive)

DEMOGRAPHICS

- The city of Spokane is the second largest city in the state of Washington.
- The people of Spokane are predominantly white, 82%
- The median household income is $44,350.
- 18.3% of the population lives below the poverty line.
- Average travel time to work is 19.8 minutes.
- 55% of housing units are owner occupied.
- 45% of the population is married.

(Bureau 2015)

The brief demographic provides gives several important implications for the public library. As the second largest city in the state of Washington, Spokane represents a significant urban population. This urban area has a significant percentage of the population below the poverty line (Bureau 2015). The average travel time notes the need for a central location for a public library to ensure accessibility.

THESIS
PROJECT
JUSTIFICATION

15.

Protest in support of Edward Snowden in Berlin (Getty)

This project has importance to me for two primary reasons. Too often, quality architecture can only be experienced by the wealthiest percentage of the population. Architecture that includes public space, either interior or exterior, offers an exception to this rule. I share the idealistic vision that architecture can serve all people. This thesis gives me the opportunity to explore possible avenues for serving people through research and design, challenging and bolstering my understanding of public space.

Additionally, public space is at the heart of civil, democratic societies, making public space a matter of importance for all professions that deal with the built environment. According to B. Hoidn, "A democratic society without public space is inconceivable, inviable, and implausible. In a democracy, the right to public space is equivalent to the policy makers' and politicians' obligation of transparency, the state's guarantee of unobstructed access to information for all, the individual's right to expression of opinion and participation, to active and politically mature forms of cooperation, and also the striving for a balance of individual and collective interests" (2016 p.8). As the urban population continues to grow around the world, public space, and its influence on society will become more significant. This research will lead to further explorations of the ways that architecture, culture, technology, and information can intersect to serve communities.

16.

Trafalgar Square Redevelopment, Foster and Partners

The ability to gather has been one of the hallmarks of a democratic society. As a Montana native living in North Dakota, the reality of long winters is clear to me. In too many urban areas, the only public spaces are exterior. These spaces can only be occupied for a fraction of the year, limiting a community's potential to be addressing community issues.

Public libraries offer interior public space, a rare but valuable asset for communities. For urban areas located in colder climates, interior public space can be the only public space provided for citizens to gather for up to half of the year.

RESEARCH
DESIGN
PLAN

DESIGN METHODOLOGY

As an applied research design project, a mixed methodology will be utilized. A **descriptive research** methodology will form the basis of the project, systematically observing existing architecture through case studies and interviews. Qualitative and quantitative analysis will be employed concurrently to graphic and digital analysis to drive case study inquiries. The case study fits the project well, providing examples of projects that are attempting to engage communities through different strategies. Additionally, interviews will provide data and perspectives from leaders in the field of library science, an important portion of the user / client population. Data of past successes and failures from descriptive research, as well as an exhaustive literature study, will provide valuable insight into the direction of the research solution

Furthermore, an interpretative research method will be used to analyze meaning and significance. The results of the descriptive research will be understood through the **interpretive research** method, applying new significance to the data through models of epigraphy (Fig 10 & 11). The models of epigraphy allow for the placement of architecture within a theoretical framework, pointing toward gaps in the existing strategies for augmenting urban spaces. The interpretive method will produce new knowledge for understanding the role that the case study projects and interviewees play in the relationship between information and the public.

The descriptive and interpretive research methods will build a foundation for a **design research** methodology. Observations from the descriptive research, informed with new significance from the interpretive research, will be investigated through the development of an architectural project: a new public library. Investigation will take place through an iterative modeling process, using physical and digital models to explore the relationship between space and information. The iterative modeling process will explore the ways to best represent augmented spaces, that host physical and digital information. Both physical and digital models will be utilized to examine the representations of augmented space to understand its role in the architecture of the public library. As an architecture student, the design research methodology allows for the tools and education acquired and developed in an architectural education to be applied to understanding problems and presenting solutions through an investigative design process.

DESIGN PROCESS PLAN DOCUMENTATION

Design documentation accommodates the preservation of the thesis project research and exploration. On a weekly basis, research and design progress will be documented and catalogued according to research and design work. Digital and physical documentation of produced material will be archived for future work and presentation. Each week will have a corresponding digital folder with digital copies of all iterations of the design as well as research and source information. The work will be documented in an InDesign document formatted to reflect the design process.

PROJECT SCHEDULE

The bulk of the research will take place before the semester's midterm review session. As such, the research will begin with a thorough literature review, progressing quickly into descriptive research. Case studies will alternate with interviews for six weeks, providing three examples of each investigation. As soon as the initial case study and the literature review finish, the iterative modeling process will begin to ensure sufficient time for the exploration before the midterm review session.
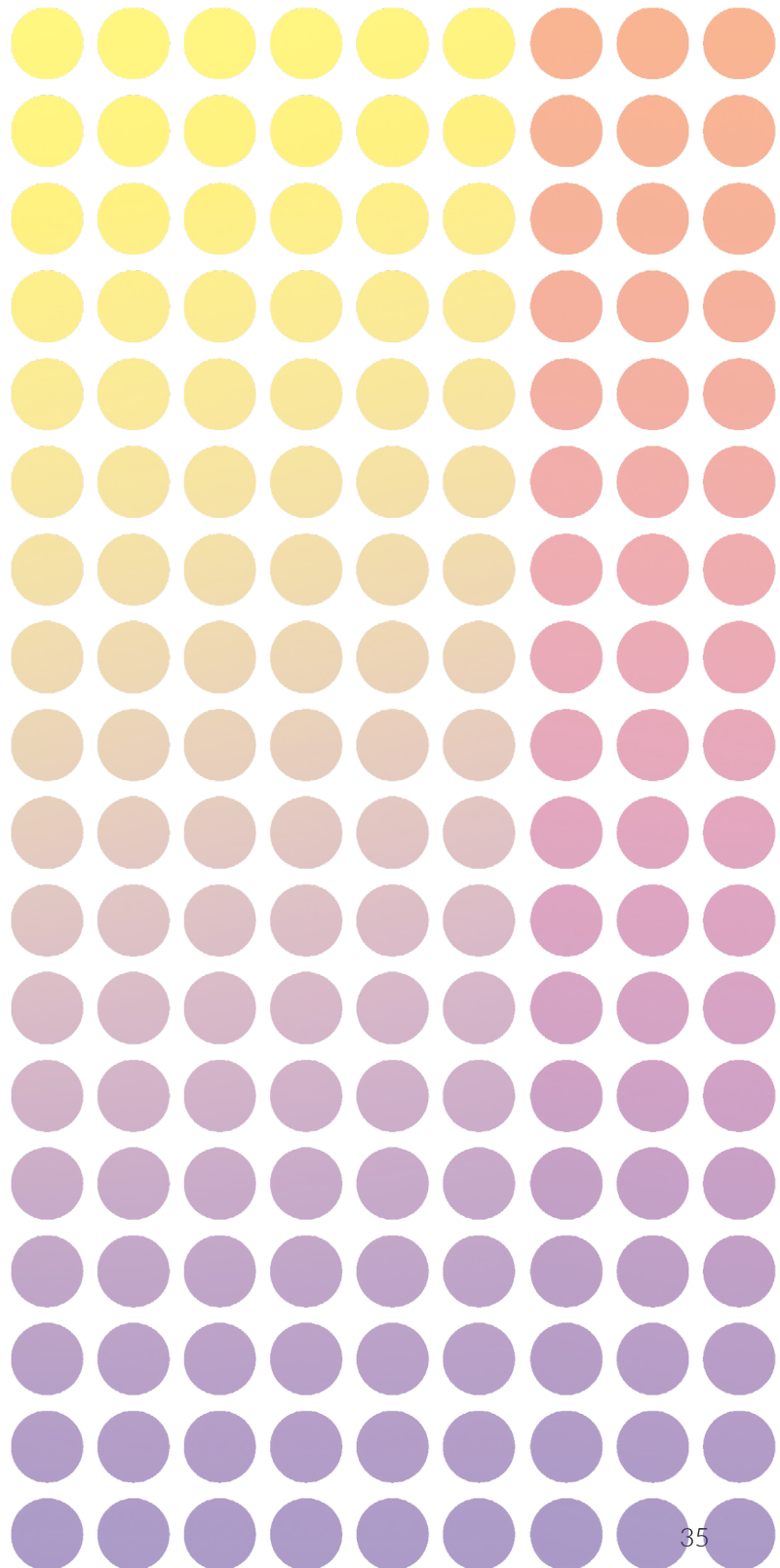
THESIS
FORMAL
RESEARCH

The average master bedroom built today is over twice the size of the first libraries ever built (Emrath 2013). A small rectangular room measuring 11.5 feet by 13 feet makes up the library at Elba in modern Syria, the best preserved example of an ancient Mesopotamian library. Around 5,500 years ago, the first writing system was developed in Uruk, Mesopotamia, and soon communities needed space to store their writings. The aforementioned 149.5 square feet was wrapped by wood shelving, filled with financial records carved onto clay tablets. These modest spaces provide insight into the initial purpose of libraries during the typology's infancy, nearly 4,000 years ago (Campbell, 2013). Initially these spaces served the mundane task of record keeping. Often, when the financial archives became obsolete, they were removed to allocate space for more relevant information. Libraries soon evolved to include a more systematic collection of knowledge, as seen in the famous Library of Alexandria. Roman libraries may have been the first to provide a limited degree of public access, succeeding the exclusive nature of the Library of Alexandria and other royal predecessors.

This gradual evolution continued until the advent of computer. In the timeframe of only a couple decades the typology of the library became threatened. Information could now be stored digitally, eliminating the primary purpose libraries were first built centuries earlier in Mesopotamia. The traditional methods for storing and accessing information became laborious and costly in comparison to digital counterparts; however, the variety of methods to retrieve information available today should not affect the library's other valuable roles in society. Public libraries not only provide access to information, but also cultivate the public realm. As information can be accessed easily and remotely through smart phones or computers it can be tempting to view public libraries as unnecessary, but libraries perform a vital role in the establishment of the public realm.

Often, terms such as 'public sphere,' 'public realm,' or 'public life' are used without clarification. To understand the role of a public library it is crucial to understand the publicness of space. S. Low and N. Smith (2013) distinguish the public sphere as a political concept, and public space as a physical concept. The public realm acts as the intersection of the public sphere and public space, the meeting of political ideas and physical space. This theoretical framework provides a practical and conceptual guide for understanding library as public place. The two ways of understanding the public, conceptual and practical, often overlap but provide unique insight into the physical, spatial, political and social implications of publicness on communities. These implications are broad, and can be seen in the different ways disciplines have documented publicness and its importance. As G. Varna and S. Tiesdell (2010) point out, "Political scientists, for example, focus on democratization and rights (e.g. Arendt, 1958; Mitchell, 1995; Mensch 2007); geographers on sense-of-place and 'placelessness' (e.g. Amin & Thrift, 2002); anthropologists and sociologists on the historical construction and subjective value of place (e.g. Ellickson, 1996, Briffault, 1999)" (p.577). As the typology meets the conceptual and practical needs raised by these disciplines, this paper asserts that the public library is the ideal candidate for a community's public realm, while advocating for ways to expand and enrich the ways a space engages with the public.
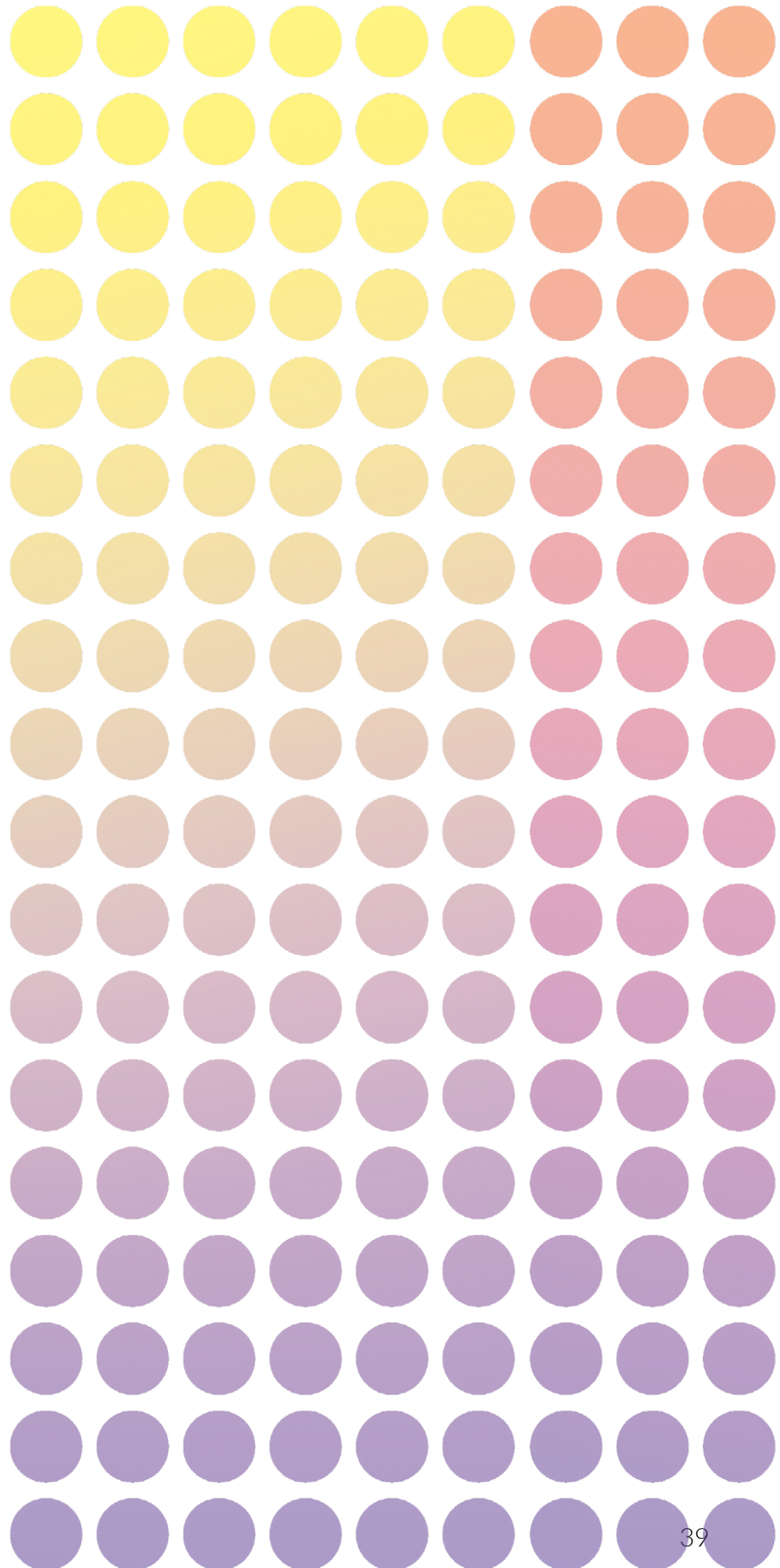
PUBLIC SPHERE

The first crucial library role is the provision of the public sphere. The value of the public sphere can be considered through political/democratic value. Publicness can mean many different things to different people, but R. Scruton (1987) observes that "a space is made public by the nature of its boundary" (p.15). Furthermore, M. Clark (2012) asserts, "public is defined by the simple truth that it is not private" (p.2). Contrary to private space, this open boundary implies an ease of access that is crucial to public space. Varna and Tiesdell (2010) describe the political/democratic value of public space as, "offering universal access ('being open to all')" (p.579). As such, accessibility can be the most general identifier of the public sphere. Public space provides access to all people in a society, removing barriers in order to bring people together. These barriers are not necessarily physical, including thresholds that obscure access and the visual connectedness of a space (Bijlsma 2014). In a democratic society, increased accessibility moves closer to the goal to ensure that all citizens are seen with equal value.

THESIS
FORMAL
RESEARCH

In addition to accessibility, the political/democratic value of public spaces are an important instigator for inclusiveness. The way in which people identify with public space is different than private space. In public space, a person is not required to assume the role of consumer or guest. The burden of a consumer identity is especially relevant in a capitalistic society where individual achievement is emphasized. Within a space that is devoid of consumer roles, space is shared among people who exist equally. Public places are one of the few physical spaces where people exist on equal footing. Varna and Tiesdell (2010) describe public space as, "neutral territory (free from coercive forces), which is inclusive and pluralistic" (p.579). Within that neutral space, inclusiveness can occur through a broader range of interactions. Unlike private space, people may engage with public space for any reason. As such, public space is a "a sphere of broad and largely unplanned encounter" (Scruton 1987 p.13). The encounters that occur in public space are unique to other encounters due to the wide amount of variability that can occur in a public space. These encounters include challenges, excitements, and contradictions. In a public space one can have a rude encounter on public transit, but also a bonding experience with a passerby over a public art installation. Within this variety, public space has the potential to expand a person's perspective beyond what is possible in other settings. Public space offers an inclusive experience of greater community belonging than in private commercial properties or in private homes (Clark 2012).

The value of the public realm can be considered through social value. In The Great Good Place, R. Oldenburg (1999) introduced the concept of the third place, an informal public gathering place. Unlike first places (home) and second places (work), third places function to accommodate regular and voluntary social exchanges. In the form of coffee shops, bars, barber shops, post offices, or main streets, these places form increase social bonding, create a foundation for functioning democracy, and encourage social equity. The need for quality third places can be particularly acute for certain demographics. P.B. Heeger (2006) of the Public Library of Cincinnati and Hamilton County in Ohio has noted a supportive and creative teenage community that she attributes to the informal gathering typical to the public library. The increasing reliance of the teenage demographic on virtual social encounters, such as Facebook, can be seen as a response to the lack of quality public space (p.1). Indeed, when quality public space for teens is provided through libraries, teenagers flock to the space to address this unmet social need. When Gould Evans renovated and expanded the Lawrence Public Library to include additional youth spaces, youth program attendance increase 160% (Lawrence 2016).

Certainly, public community is not always a pleasant experience. J. Jacobs observes that public communities, "bring together people who do not know each other in an intimate, private social fashion and in most cases people do not care to know each other in that fashion" (p.95) Fortunately, the sense of belonging perpetuated by shared space also creates a feeling of safety for users. The impression of safety is often controlled by the self-policing of the public (Lecki & Hopkins 2002). Clark describes an example of a homeless woman undressing and cleaning herself in the library's bathroom facilities, recognizing that a public space uniquely gives the woman the sense of safety needed for the unconventional situation (2012). Despite the variety of interactions that occur in a public space, a recent survey found that United Kingdom library patrons view libraries as a safe environment (Dewe 2006).

THESIS
FORMAL
RESEARCH

PUBLIC SPACE

In addition to the public sphere, physical public space is also crucial to the creation of the public realm. In many ways, public space influences the aforementioned public sphere. Low & Smith (2013) describe the relationship, "[the] spatiality of the public sphere potentially transforms our understanding of the politics of public. An understanding of public space is an imperative for understanding the public sphere" (p.6). This can be seen clearly in the principles communicated through the architecture's symbolism. Architecture is never produced devoid of symbolism and libraries are no exception. Fasick (2011) ascertains, "every public building contains a metaphor – a vision of what the building represents" (p.101). The library functions as one of the primary authoritative architectural symbols of today's society, supplanting the cathedrals that came before, representing authority and belief. K. Warpole (2013) asserts, "The public library today is as much a symbol of civil society and democracy as the medieval monastic library was a symbol of the religious elite, and the private library a symbol of privilege and personal wealth" (p.33). To question the library's place in the civic realm is to question the achievements and standing of the patron government that funded and supported the library.

As libraries have changed, the values imbued in the structures have changed as well. Clark (2012) describes the sequence of spaces in the United States Library of Congress, "the ominous and impressive Library of Congress includes a central reading room contained in a domed enclosure at the heart of the building. The reader must traverse to the center of the building to call upon its resources. S. Collins (2009) notes that depth connotes power and the deeper the readers go into the building the closer they get to accessing the full power of the institution. This building design literally reflects the philosophical goals and character of the Library of Congress" (p.2). The central cylinder structure of Gunnar Asplund's Stockholm Public Library contains similar allusions, acting as a brain holding the community's collective knowledge. The public library continues to adapt in the physical expression in the enlightenment era ideal that all citizens should have free and equal access to knowledge. Libraries today seem to moving "from preservation to access, control to community involvement," although this change does not always result in exactly the same set of values (Clark 2012 p.4). A.M. Fasick (2011) lists exploration, a secure place, an information shopping center, and a theater as metaphors for understanding the evolving library typology (p.103). If libraries that enrich the public realm are desired, the symbolic expression of the physical building is an influential component.

On a more tangible and practical level, the physical space of libraries significantly contributes to the public realm. The library functions as shared space within which people are able are able to claim individual territory. Public space is crucial in society as is provides a place for citizens to find a sense of ownership. In a space that does not force the role of consumer, citizens are able to attach a sense of belonging to the space through freedom and entitlement. This sense of longing can be achieved in a commercial or private environment to a limited degree. Clark (2012) describes the difference, "This feeling [of belonging] can be extended to commercial establishments such as coffee shops, but with limitations, as the individual is always a consumer and are no longer welcome if they reject that role" (p.5). Within this safety net of belonging, individuals develop habits and establish territories of familiarity. Certain people will return to the same nook in the library upon every use. Occasionally, they will leave personal objects or markers, returning as close as possible to the desired location (Cohen & Cohen 1979).

The sense of belonging in public spaces leads to the library patrons disrupting the traditional library functions. Collin's (2009) anthropological study of the Library of Congress showed the discord that can occur within the formal atmosphere. He observed slumber, loud idleness, and strange library patrons he calls "mystagogues engaged in research quite outside of academia" (p.37). Collins concluded that disruption is a crucial to the provision of public space. Subverting the original purpose of the Library of Congress, individuals can invent new uses, changing a building into a public space (Collins, 2009). In standard public libraries the potential for disruption is far greater.

THESIS
FORMAL
RESEARCH

INTERSECTION: THE PUBLIC LIBRARY

The typology of the public library is the ideal candidate to ensure a healthy public realm, seamlessly meets the criteria required for a thriving public realm. While many spaces could fit the descriptions of public space and public sphere listed above, the library acts as the best fit due to its original purpose. The ancient Mesopotamian library at Elba held financial records. Despite serving a seemingly banal function, the library at Elba realized the preservation of their cultural record to a degree. J. Wilkin (2015) describes curation as one of the four pillars of research libraries in the twenty first century, "the selection, preservation, maintenance, collection and archiving of, and provision of access to, materials pertaining to the cultural record" (p.237). The curation of the cultural record is perhaps more closely linked to library's identity than any other function. The role of curator has led to the legendary status of the library as the place of truth.
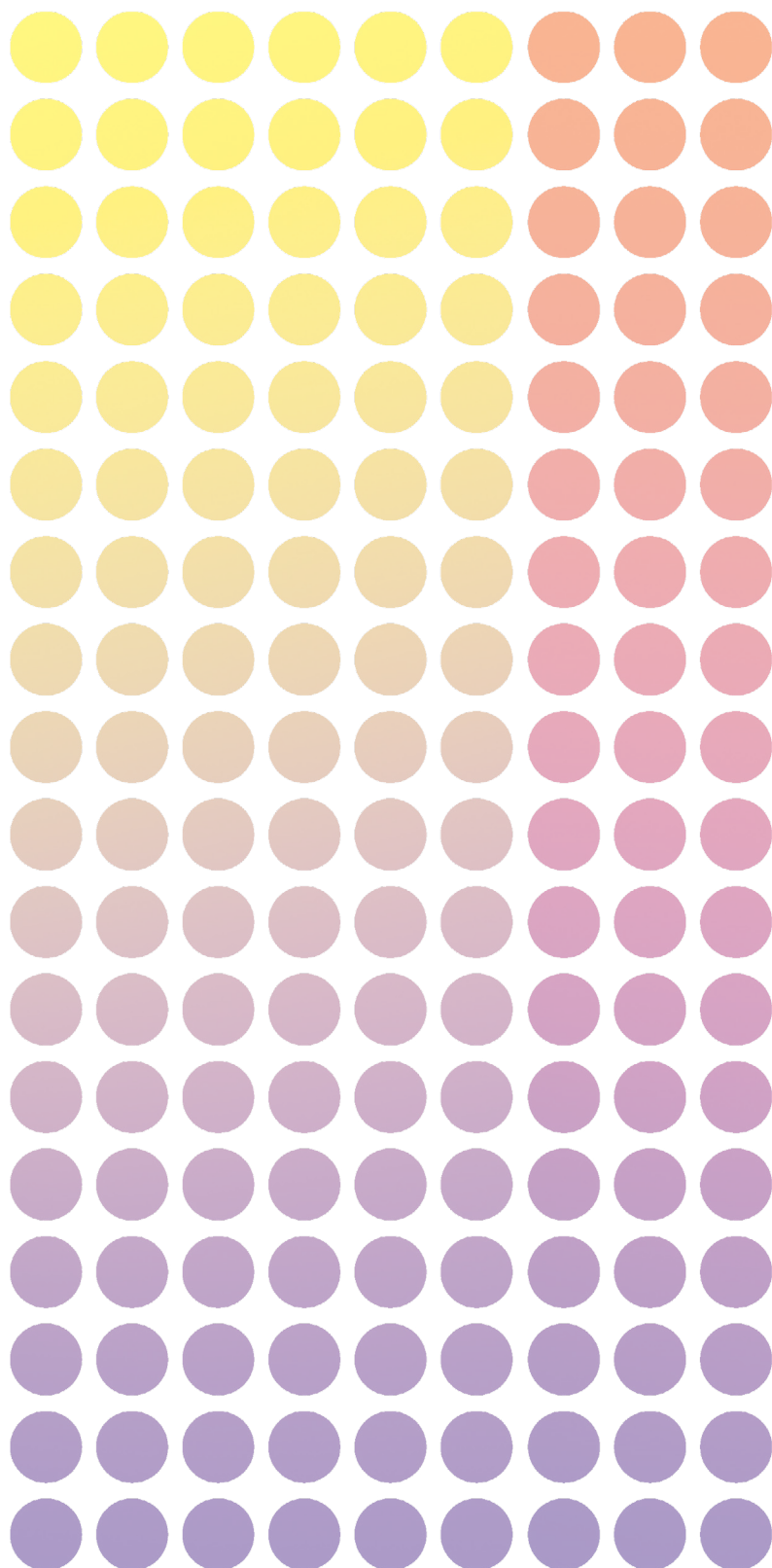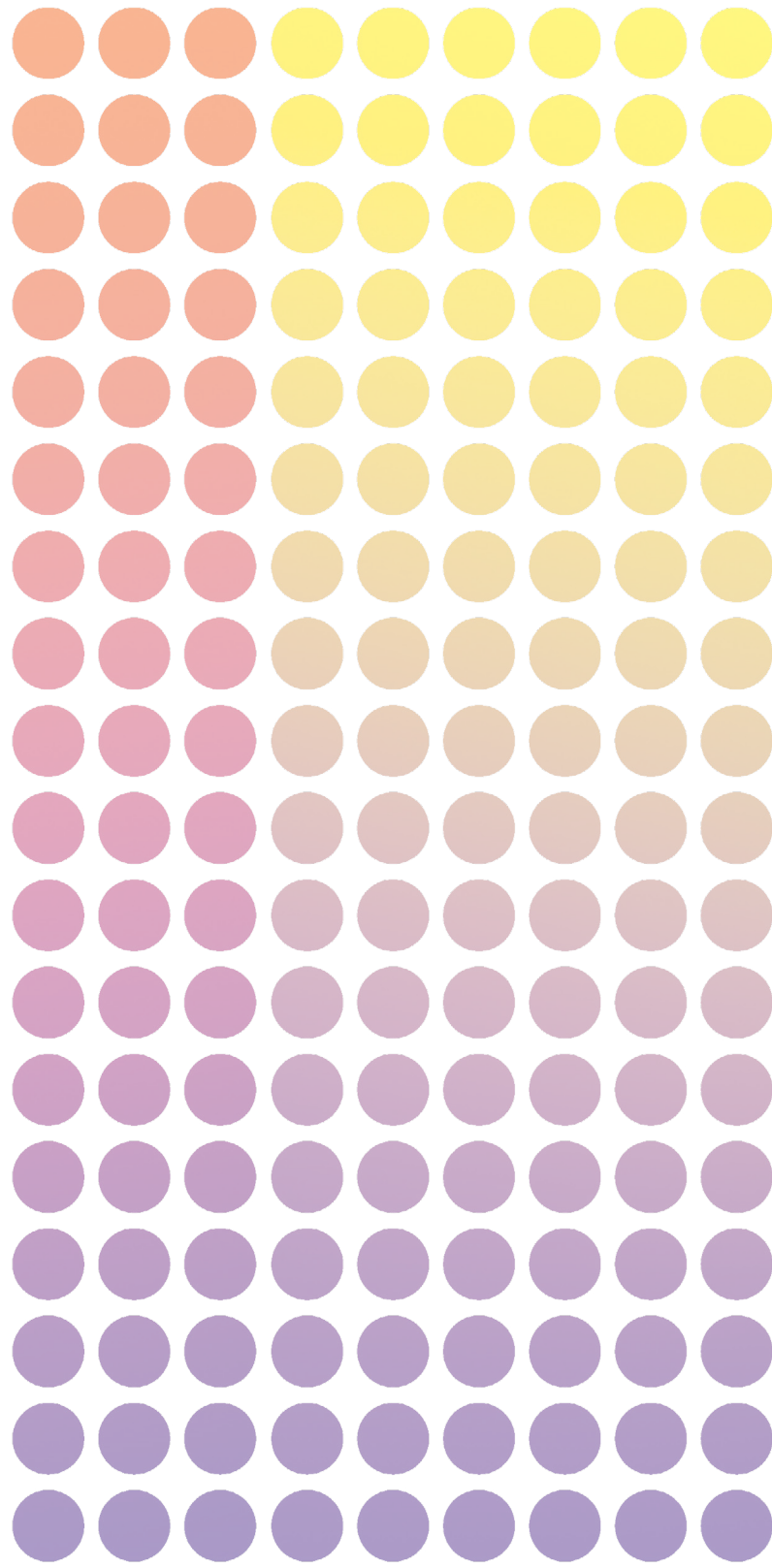
Wilkin portrays the importance of influence of curation, "Curation provides the underpinnings for other things we do, and curating is the most enduring part of our work. It is sometimes seen as the creation of truths, or at least as work that transcends bias" (p.238).The pursuit of truth aligns with the purpose of the public realm. As described earlier, the public realm is the intersection of the public sphere and physical public space—an accessible, inclusive place of interaction and collective ownership that politically, socially and intellectually enriches the community. Public libraries, like truth, are lost when they are not a burden of the entire community. J. Billington (2015) asserts, "This pursuit [of truth] differs from all others in life, because it is inherently noncompetitive and communal. One person's discovery enriches another's search; and the ongoing pursuit of truth helps keep us from the pursuit of each other" (p.255). When fulfilled in the public library, the pursuit of truth, the curation of the cultural record, the public sphere, and public space act in a mutually beneficial way to create communities fertile for a thriving public realm.

THESIS
FORMAL
RESEARCH

As places for the pursuit of truth, libraries are largely successful. However, the public libraries' view of the cultural record is currently limited. Wilkin (2015), who described the four pillars of the twenty first century research library, concluded that the cultural record was composed of, "predominantly books and manuscripts, but often images and audio items also" (p.237). The inclusion of images and audio items are notably secondary, almost apologetic, showing that the cultural record has somehow been limited to books. Despite the rather grand role of the library as curator of the cultural, libraries have only included written cultural items, with visual and audio items included almost as an afterthought. This division can be seen in the typological shift in architecture along art form. Art, for example, is contained and celebrated within museums and galleries. Unfortunately, galleries and museums have achieved a well-deserved reputation for exclusivity that public libraries do not. This exclusive barrier is both financial and social, violating the accessibility required for a public space. In this way, the current view of typology for the libraries limits its influence as public place.

A UNESCO International Conference on Adult Education (1997) found that public art and cultural institutions can significantly contribute to adult education (p.5). The conference also found, "libraries to be the most popular form of public cultural provision [...] used by a wider section of the public than other cultural institutions; visitors include people from all social classes and all generations (p.11). Public libraries can effectively bridge this gap in adult education through innovative programmatic inclusions. For instance, when Gould Evans renovated and expanded the Lawrence Public Library they included a community access recording studio to support Lawrence's vibrant music culture. The new library has reported user visit increases by 55% since reopening (Gould Evans). This studio provides a link to allow the library to not only be a place to preserve the cultural record, but also have a place in the ongoing creation of the cultural record. Studio space could easily be expanded into venues for live music or workshops for artists or theatres. Dokk1, the newly designed Aarhus Public Library by Schmidt Hammer Lassen steps in this direction, with massive art installations and space for live music (Dokk1 2015).

Additionally, libraries could act as proponent for adult education and artistic instigation for environmental issues. D.E. Clover (2015) identifies public art as a powerful tool for ecological change, noting that environmental issues are the primary global threat faced today (p.10). Libraries already include areas for gathering in groups large and small. Connecting libraries to adjacent or nearby meeting centers that are connected and rely upon passive environmental controls could become a valuable educational experience. The award winning Dixon Water Foundation Josey Pavilion design by Lake Flato shows how a facility can connect people with the natural landscape in a manner that is more than visual. The pavilion acts as a demonstration site to "promote healthy watersheds through sustainable land management to ensure the preservation of our water resources" (Dixon 2016). Understanding how a community interacts with the natural environment is an important part of the cultural record, and can provide valuable education experiences for all citizens. While public libraries curate the cultural record in a number of valuable ways already, there are numerous ways the library can continue to connect to the public realm by expanding the breadth of the cultural record and creating a more inclusive community.

Despite the fact that libraries face questions of importance and value, libraries have proven to be an enduring typology. As digital media becomes more and more prevalent, it would be easy to disregard the library. However, the public library meets all the criteria for enriching the public realm, integrating the public sphere with public space. Public places continue to be an incredibly valuable asset to communities. As libraries move forward, expanding the definition of the cultural record can increase their role as thriving community hubs for the public realm, ensuring that libraries continue to serve the communities that support them.

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ANNOTATED BIBLIOGRAPHY

Amin, A., & Thrift, N. (2002). Cities : reimagining the urban. Cambridge: Polity Press. Retrieved from http://www.polity.co.uk/book.asp?ref=9780745624136
> Amin and Thrift cover the role of place in the urban context. Within this discussion, they contribute to the understanding of geography as it relates to a city's scale. These ideas connect well to the different ways disciplines interpret the importance of publicness.

Arendt, H. (2003). Domestication by cappuccino or a revenge on urban space? Control and empowerment in the management of public spaces. Urban Studies, 1829–1843.
> Arendt lends insight into the understanding of the rights of citizens in different situations. When compared to different settings, this examinations illuminates contrast between the implications of consumer spaces on citizens' experience of a public place.

Bijlsma, T. (2014). The phenomenology of publicness. Wageningen University, The Netherlands.
> Bijlsma's these analyzes the perception of public spaces for a specific public square in the Netherlands. In the analysis, Bijlsma defines several core aspects of publicness, a crucial step to understanding the differing definitions of what public means.

Briffault, R. (1999). A Government for Our Time? Business Improvement Districts and Urban Governance. Columbia Law Review, 99(2), 365–477. https://doi.org/10.2307/1123583
> Briffault examines the role of place in subjective understanding. In public space, the subjective experience of people in the space is extremely important. These ideas are valuable to understand the different ways that disciplines interpret the importance of public space.

Campbell, J. (2013). The library: A world history. Chicago: University of Chicago Press.
> Campbell provides a sweeping and comprehensive history of the library in different times and cultures. This information provides the foundation of understanding how libraries have persisted as a typology for many years.

Clark, M. (2012). Becoming public: How architecture, interior design, and public use define the public library as a public place. Dalhousie Journal of Interdisciplinary Management, 8(1). https://doi.org/10.5931/djim.v8i1.220

> Clark analyzes the relationship between the user and public space. The focus on the user provides many valuable insights into both the influence of design upon the public and the influence of the public on the designed world.

Clover, D. E. (2015). Adult education for social and environmental change in contemporary public art galleries and museums in Canada, Scotland and England. International Journal of Lifelong Education, 34(3), 300–315. https://doi.org/10.1080/02601370.2014.993731

> Clover provides a survey of several recent attempts to incorporate art into adult education. This education focuses on the most pressing cultural issues. These attempts show the potential for art to act as an agent of change in the community. Additionally, Clover shows making the relationship between art and the public less exclusive can have an enduring impact.

Cohen, A., & Cohen, E. (1979). Designing and space planning for libraries: A behavioral guide. New York: R.R. Bowker Co.

> Cohen and Cohen's analysis of library use remains a useful tool for understanding how the public uses the library. It is particularly valuable to compare the intended use of library space to its true used function.

Collins, S. (2009). Library of walls: The library of congress and the contradictions of information society. Duluth, MN: Litwin Books.

> Collins provides a deep understanding of the design and function of the Library of Congress. As a renowned library in the country, it is particular valuable to examine the library's use by the public, as well as its larger symbolic impact on the perception of libraries.

Dewe, M. (2016). Planning Public Library Buildings: Concepts and Issues for the Librarian. Routledge.

> Dewe contributes a contemporary guide for libraries from the perspective of the librarian. As librarians experience library space regularly, this understanding can be used to understand the social interactions and implications of public library space.

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FORMAL
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Dixon Water Foundation Josey Pavilion. (2016). Retrieved from http://www.lakeflato.com/eco-conservation/dixon-water-foundation-josey-pavilion
> Lake Flato provides an excellent example of design for an ecologically focused pavilion. This design has major implications for immersive and experience driven environmental education in public places.

Dokk1. (2015). Retrieved from http://www.shl.dk/dokk1/
> As the largest public library in Scandinavia, dokk1 takes several innovative steps toward embracing the public. This innovative building acts an example for the impact a public library can have on a community.

Ellickson, R. C. (1996). Controlling Chronic Misconduct in City Spaces: Of Panhandlers, Skid Rows, and Public-Space Zoning. The Yale Law Journal, 105(5), 1165–1248. https://doi.org/10.2307/797175
> Ellickson examines the role of deviant citizens in public space. Understanding this demographic is incredibly valuable to downtown libraries, and is the number one reason I have heard for avoiding the library. While the library acts as more of a revelation of our society than an influence in this regard, the roles of the deviant in public places cannot be ignored.

Emrath, P. (2013). Spaces in new homes. Retrieved from https://www.nahb.org/en/research/housing-economics/special-studies/spaces-in-new-homes-2013.aspx
> Emrath provides a comprehensive examination of the data in new homes. This information acts as a cultural indicator of priorities. Additionally, the data can be used as a contrast against ancient structures, such as the earliest libraries.

Fasick, A. M. (2011). From Boardbook to Facebook: Children's Services in an Interactive Age: Children's Services in an Interactive Age. ABC-CLIO.
> Fasick describes the different ways that information is communicated. The social and political implications of these avenues for communication have a large impact on public space. As curators of the cultural record, libraries must be carefully examined to understand the implications of its chosen avenue for communication.

Heeger, P. B. (2006). A Tie for Third Place. School Library Journal, 52(7), 27–27.
    Heeger describes the current need for social spaces for teenagers in an increasingly digital
    world. The public library has tremendous potential to meet the social needs of the
    community, particularly for citizens who may not have another space to socially connect.

Jacobs, J. (1987). The uses of sidewalks: Contact. In N. Glazer & M. Lilla (Eds.), The public face of
architecture: Civic culture and public spaces (pp. 95–112). New York: The Free Press.
    Jacobs provides insight into the environment of public space. Using circulation space as
    an example. Jacobs examines interactions in public circulation spaces. These interactions
    provide valuable insight into public interactions within the library as well.

Lawrence Public Library Expansion and Renovation. (2016). Retrieved from http://www.gouldevans.
com/portfolio/lawrence-public-library
    Gould Evans has provided an excellent example of a public library. The innovative model
    pushes the library typology to expand its role as curator of the cultural record. These
    innovations show the potential for public libraries to enrich the public realm.

Leckie, G. J., & Hopkins, J. (2002). The Public Place of Central Libraries: Findings from Toronto and
Vancouver. The Library Quarterly: Information, Community, Policy, 72(3), 326–372.
    Leckie and Hopkins examine the use of several libraries in Canada. Their findings provide
    useful and empirical information about how these public institutions are used. The study
    has direct information regarding the interaction between public space and its design.

Low, S., & Smith, N. (2013). The Politics of Public Space. Routledge.
    Low and Smith provide insight into the understanding of public space. Low and Smith detail
    the political and social implications of public space, breaking it down into its foundational
    elements. Their definitions of the public and its various influences contribute additional
    perspective into the understanding of the public.

Mensch, J. (2007). Public Space. Continental Philosophy Review, 40(1), 31–47. https://doi.
org/10.1007/s11007-006-9038-x
    Mensch describes the intersection of democracy and public space. These ideas provide
    insight into the different perspectives disciplines have toward public space and its
    implications on society.

THESIS
FORMAL
RESEARCH

Mitchell, D. (2003). The Right to the City: Social Justice and the Fight for Public Space. Guilford Press.
    Mitchell argues for public space as a right and indication of equality. These ideas show how
    public spaces function in fundamentally different ways than consumer or private spaces,
    providing ideal space for community building.

Museums, libraries and cultural heritage: Democratising culture, creating knowledge and building
bridges. (1997). Presented at the UNESCO, Hamburg: IEU.
    This conference set ambitious goals for the future of cultural education through existing
    institutions. The ideas presented show the potential for libraries to function as builders of
    cultural knowledge.

Oldenburg, R. (1999). The good great place: Cafes, coffee shops, bookstores, bars, hair salons, and
other hangouts at the heart of a community. New York: Marlowe.
    Ray Oldenburg's influential work acts as a guide for understanding social spaces in
    communities. While Oldenburg never mentioned libraries as third places, libraries
    have potential to function as non-work and non-home social gatherings.

Scruton, R. (1987). Public space and the classical vernacular. In N. Glazer & M. Lilla (Eds.), The public
face of architecture: Civic culture and public spaces (pp. 13–25). New York: The Free Press.
    Scruton describes the relationship between public space and architecture, defining the
    elements of architecture that are public. These ideas are crucial to develop a robust
    definition of the public and its corresponding parts.

Varna, G., & Tiesdell, S. (2010). Assessing the Publicness of Public Space:The Star Model of Publicness.
Journal of Urban Design, 15(4), 575–598. https://doi.org/10.1080/13574809.2010.502350
    Varna and Tiesdell developed a model for assessing how public certain spaces are. Aside
    from the direct usefulness of the model to assess public spaces, Varna and Tiesdell's model
    is explained in depth, revealing the most important components of publicness.

Warpole, K. (2013). Contemporary library architecture: A planning and design guide. New York: Routledge.

> Warpole's guide acts as both a functional planning guide as well as an abbreviated introduction to the current trends in library design. Warpole's descriptions portray valuable information regarding the cultural and functional role of the library.

Wilkin, J., & Billington, J. (2015). The meaning of the library: a cultural history. (A. Crawford, Ed.). New Jersey: Princeton University Press.

> Wilkin and Billington discuss the current role of the library in light of its cultural history. The ideas reveal the most enduring aspects of the library that are most important to maintain into the future.

PRECEDENT ANALYSIS
MUSASHINO ART UNIVERSITY LIBRARY
SOU FUJIMOTO ARCHITECTS
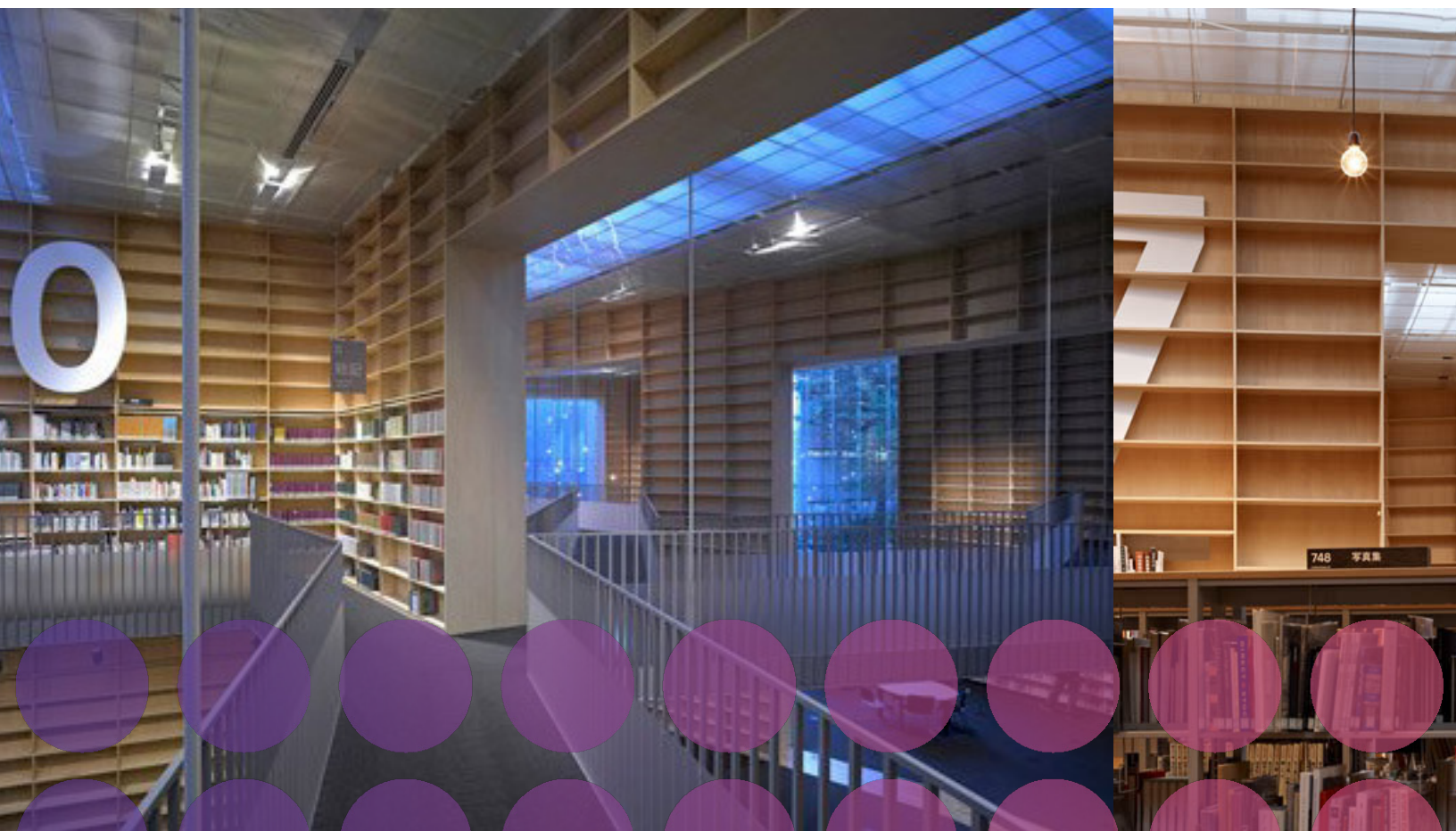
Location: Tokyo, Japan
Size: 2883.18 sqm
Year: 2010

17.
18.
19.
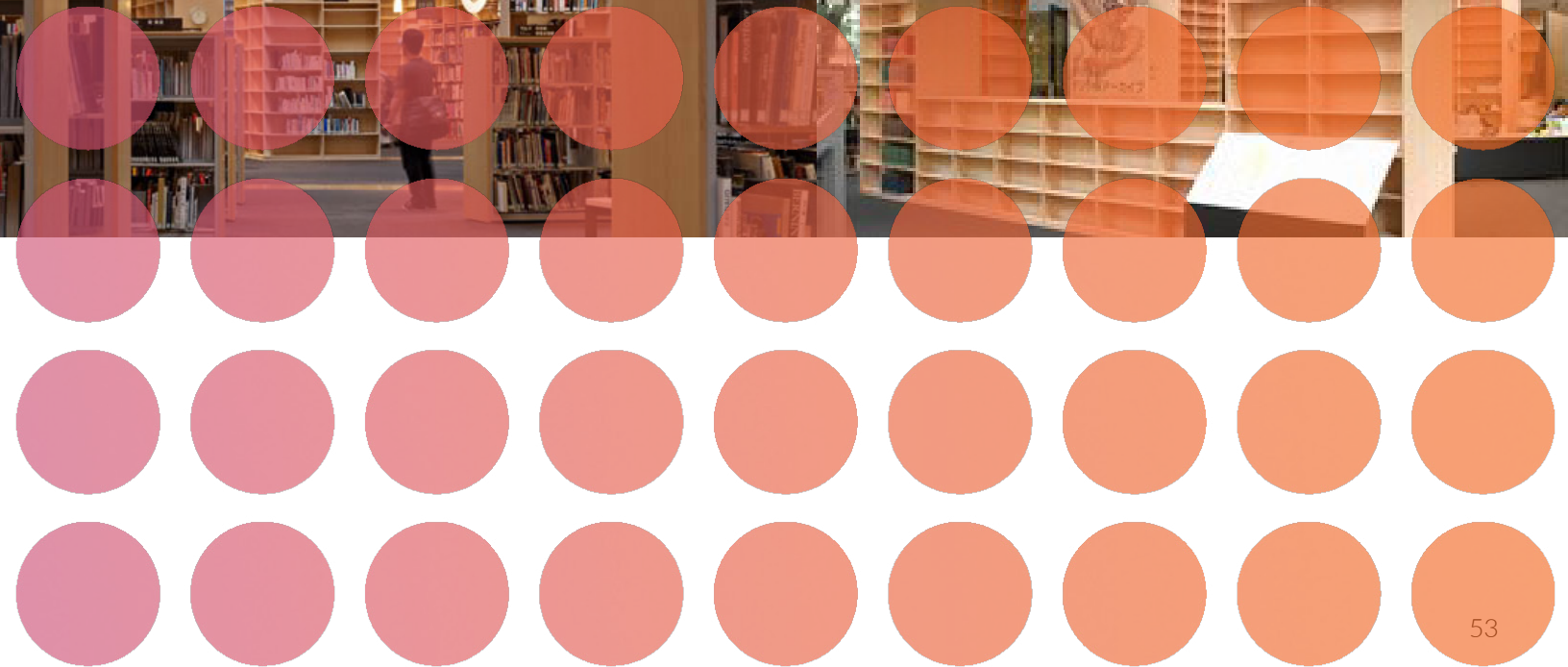
PRECEDENT ANALYSIS
MUSASHINO ART UNIVERSITY LIBRARY
SOU FUJIMOTO ARCHITECTS

20. FLOOR PLAN

The floor plan does not reveal any typical geometries. Neither does the plan show an adherence to a curving, organic form. Rather, the plan is composed of irregular points. This organization is particularly valuable in the library typology, as libraries are required to be composed around a specific order so that patrons can quickly and logically find necessary resources.
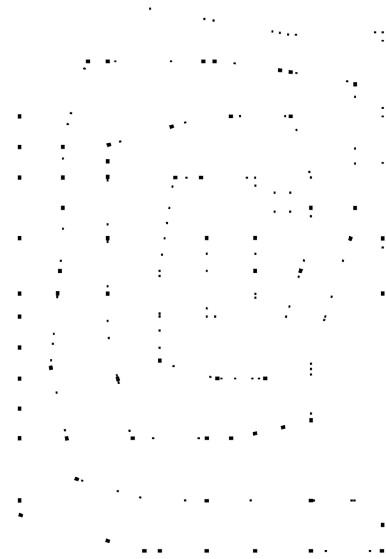
21. STRUCTURE

As with the plan, no pattern emerges along structural lines. For Fujimoto, the structural grid is not the primary form generator for a library space. Rather, Fujimoto hides the structural columns within the bookshelves. In this way, the steel structure is secondary to the aesthetic of the bookshelf.
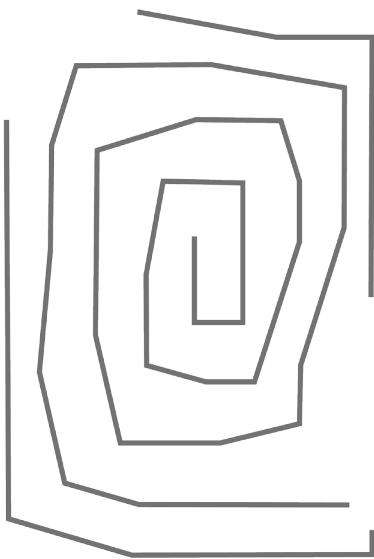
22. ORGANIZATION

From the organization of the bookshelves, the guiding order for the design can be seen. The logic and way finding is built on a spiral, circling out from the center. In this way, the patrons can navigate the resources by following the numerical progression of the categorization along the length of the spiral. This approach challenges the way to organize resources, offering the organization of resources as the primary form generation.
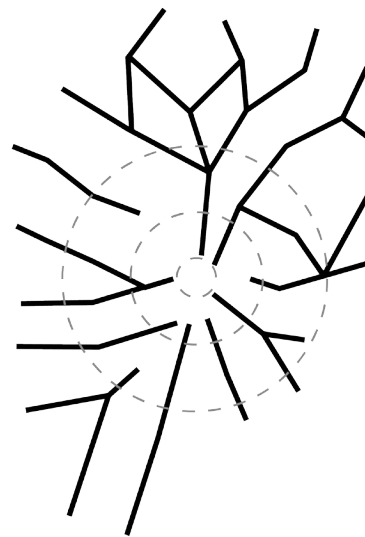
23. HIERARCHY

Fujimoto breaks the rules set by the spiral, cutting through the book stack walls. The breaks allow for easier navigation through the stacks, allowing one to cut from one area to another quickly. Perhaps more importantly, the breaks create a strong hierarchy, cutting back to the central reference desk at the center of the library. The reference desk is nearly always in view, demanding a prominent presence and importance at the heart of the building, The breaks also allow for a sense of mystery and discovery by creating nooks within the space to explore, creating the illusion that there is always more to explore by connecting visually to other branches in the library.

PRECEDENT ANALYSIS
MUSASHINO ART UNIVERSITY LIBRARY
SOU FUJIMOTO ARCHITECTS

24.

Entry into the Musashino Art University Library, Sou Fujimoto.

The Musashino Art University Library, designed by Sou Fujimoto, proposes a relationship between the book and the user. Constructed in 2010, the library is situated well within the internet age. Despite the influence of technology, the building focuses on the architectural/built element that acts as the interface between the user and the book, the bookshelf. The shelves form a forest, surrounding and sheltering the visitors of the library. In this way, the library produces an atmosphere that is at once enchanting and unsettling. The extension of the bookshelves to their extremes creates an enchanting atmosphere that virtually dreamlike. The building typology is linked to a quality of "libraryness," reminiscent of fond memories and introspection. Interestingly, Fujimoto's basis of theory innovates upon the nostalgia associated with libraries. The Musashino Art University Library provides a model for innovation upon the aesthetic history of the library.

25.

The porous spiral continues to the exterior entry sequence.
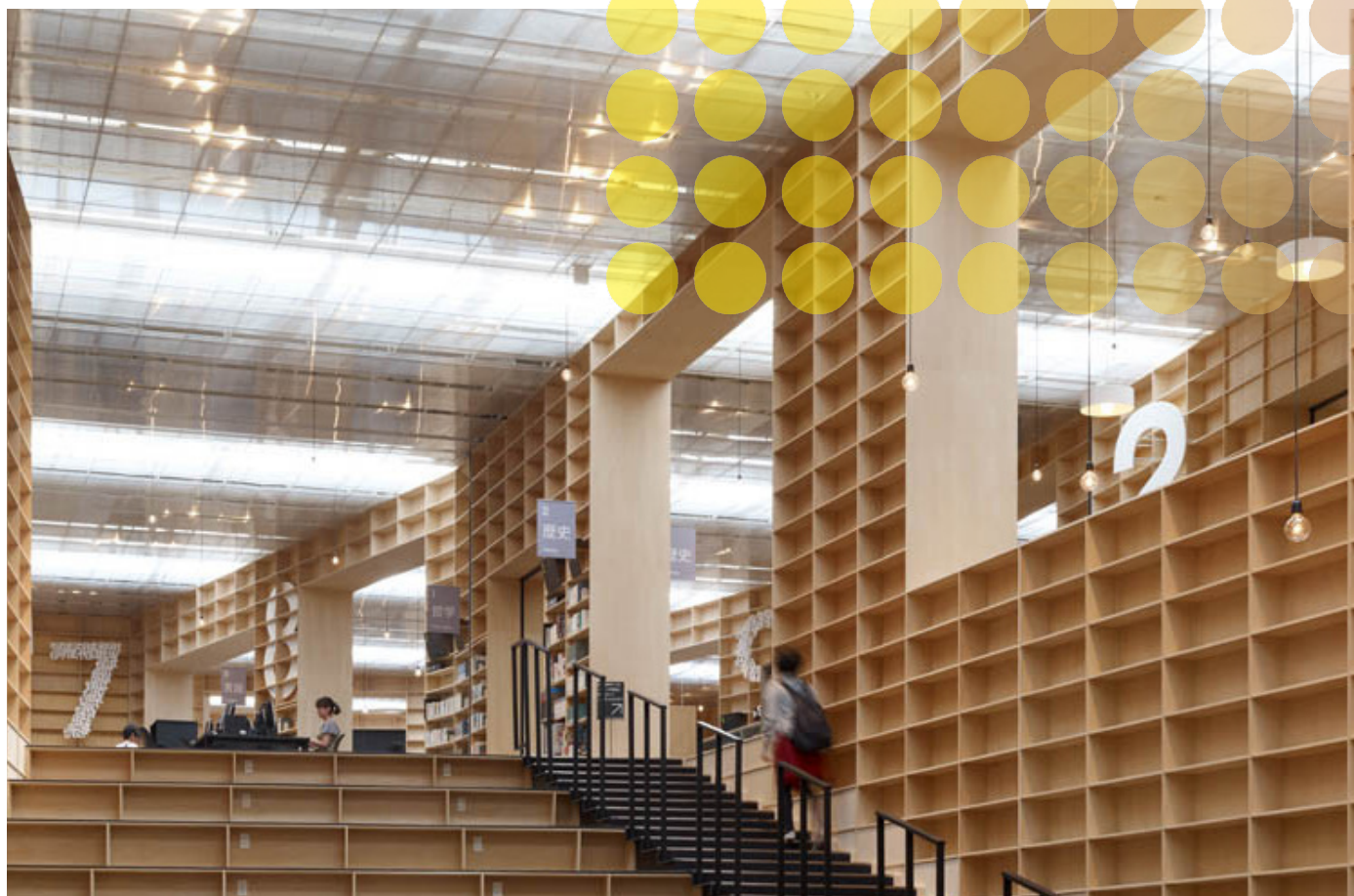
26.

The grand staircase allows further inhabitation of the bookshelf, while rising to connect to the central reference desk.
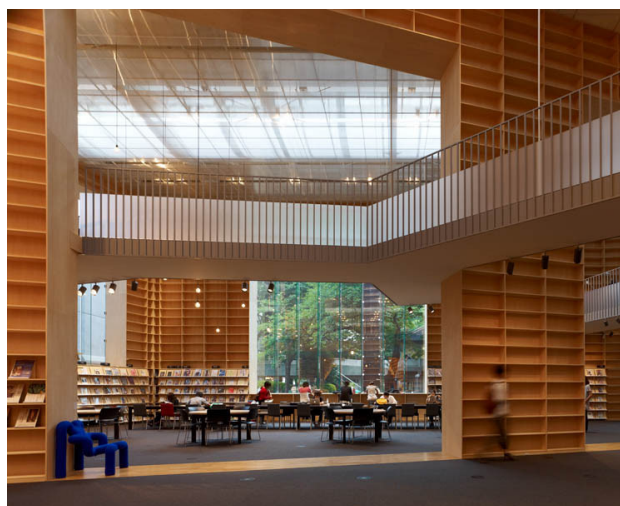
27.

Reading rooms provide breaks in the spiral structure.

PRECEDENT ANALYSIS
LIBRARY ON THE QUAY
ATA STUDIO

Location: Riverside Park, China
Size: 500 sqm
Year: 2014

28.
29.
30.

PRECEDENT ANALYSIS
LIBRARY ON THE QUAY
ATA STUDIO
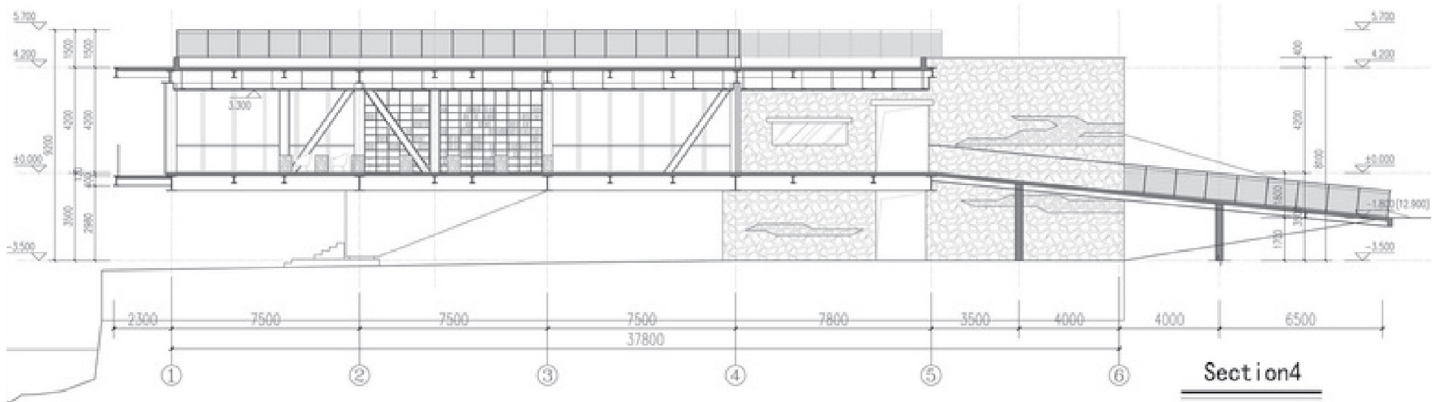
31. SECTION

The section shows the library space centered on a single rectangular volume, housing all resource materials and reading space. The relative absence of changes in vertical space result in an emphasis on horizontal movement.
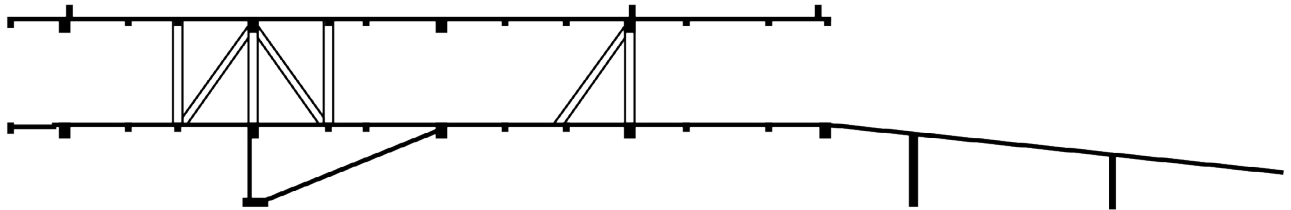
32. STRUCTURE

The structural layout portrays the main library floor as a cantilevered bridge, contrasting the steel structure with the stone foundation below.
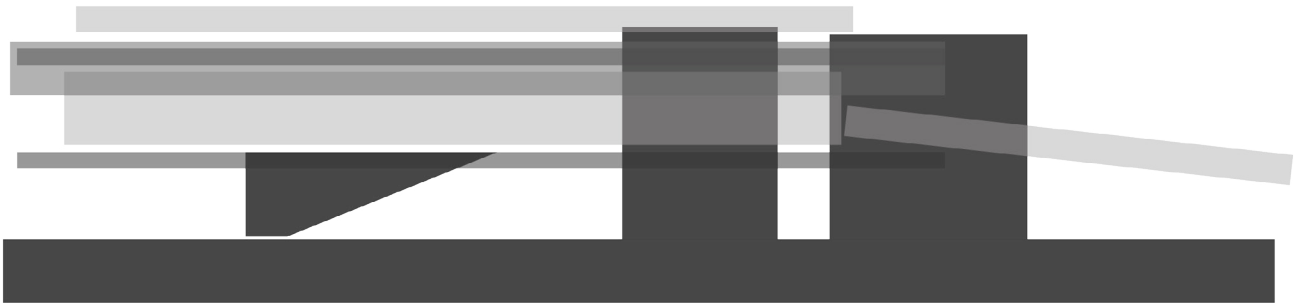
33. MATERIAL LAYERS

The material palette reveals levels of transparency that mediate the transition of the coastline. The building radiates between stone and glass, recounting the relationship of the earth and the water. These layers provide a sequence of enfilade that slowly opens to provide views of the water.
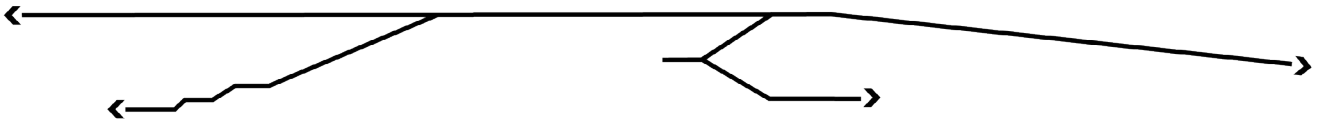
34. CIRCULATION

The circulation paths emphasize the linear nature of the library, creating a sense of direction that both points to the water and relates to the massing and direction of the quay below.

PRECEDENT ANALYSIS
LIBRARY ON THE QUAY
ATA STUDIO

36.

The staircase acts as a reading room, descending to the quay below.

The Library on the Quay builds upon the interesting context of its site. In almost every way, the structure relates to the site. In order not to dominate the older quay, once used for shipping access, the library is raised above the stone. The raised height is used to full advantage, capturing views of water and coast on three sides. The momentum of the circulation, the layering of the materials, and the structural cantilever all point to the water, linearly emphasizing the importance of the site. In this way, the Library on the Quay provides an innovative approach to a community library based on looking outward. While many libraries prioritize introspective and controlled spaces, the Library on the Quay takes virtually all opportunities to direct attention back to the surrounding context. This interaction between site and structure accommodates several wonderful spaces that blur interior and exterior space, such as the plaza sheltered by the cantilever and the ramp leading to the entry condition.

37.

The overhead structure frames the views of the coast.

38.

The library strikes a dramatic position with above the water, drawing attention to the relationship between the cantilever, the quay and the water below.

39.

The book stacks are bordered by study areas along the perimeter, maximizing views.

PRECEDENT ANALYSIS
VIIPURI LIBRARY
ALVAR AALTO

Location: Viipuri, Finland
Size: 2500 sqm
Year: 1935

40.
41.
42.

PRECEDENT ANALYSIS
VIIPURI LIBRARY
ALVAR AALTO
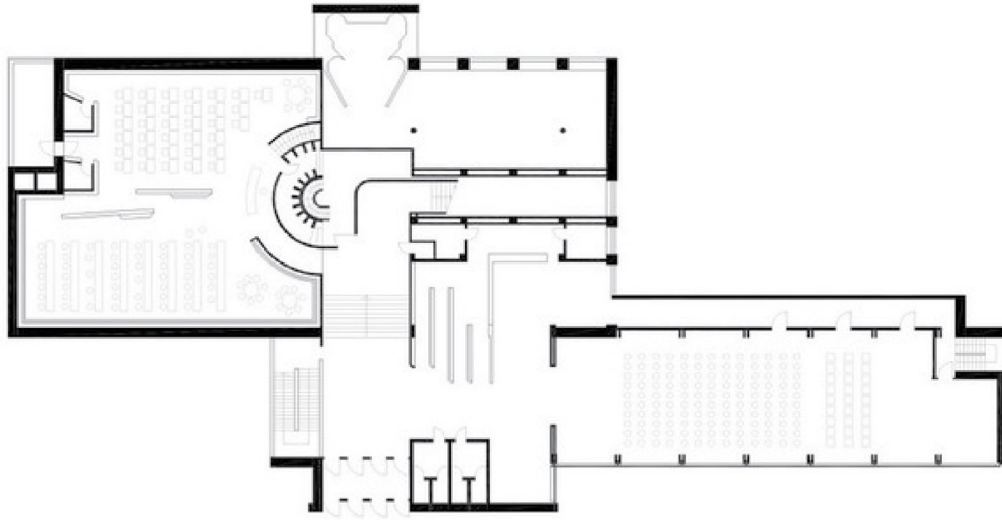
43. FLOOR PLAN

The floor plan accommodates easy movement through the library, splitting the reading and book stack areas from the gathering space and circulation, making movement an important experience.

44. MASSING

The deceptively simple massing is comprised of the two rectangular blocks offset horizontally from one another. The program generally follows the massing, placing the majority of the reading spaces behind the administration and community spaces in the entrance block.
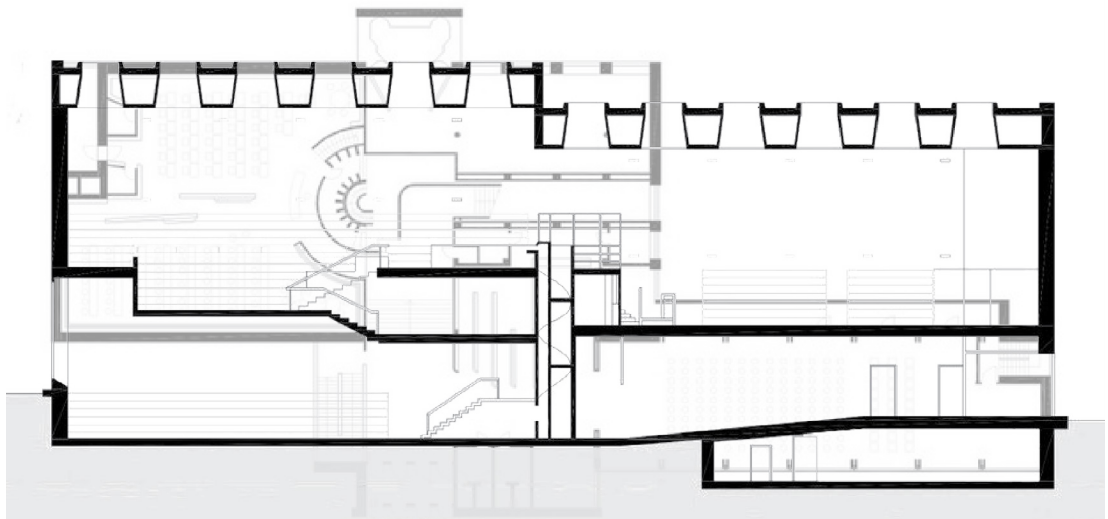
45. PLAN TO SECTION

The plan and section relationship reveals the complexity of the spaces. Movement through the plan gives way to rises in elevation and vertical space, culminating in a fluid journey to the reference desk.
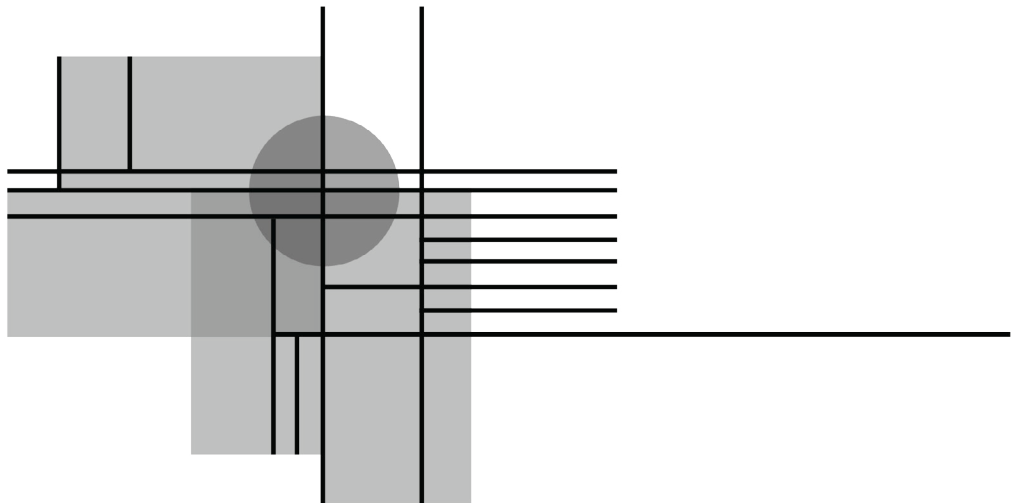
46. GEOMETRY

Underlying geometric principles guide the spaces with precision. The introduction of a contrasting circle, at the geometric heart of the building emphasizes the importance of the reference desk within the plan.

PRECEDENT ANALYSIS
VIIPURI LIBRARY
ALVAR AALTO

48.

The entrance offers generous daylighting

The Viipuri Library displays Aalto's unique approach to design in the library setting. The building undoubtedly has the functional sensibilities of modernism, with a strict grid based on proportional dimensions and scalar geometries, but the design has clear deviations from the functional aesthetic. An undulating wood roof in the celebratory auditorium bears a Finnish quality distinct from the international style, while generous landings, elevated sweeping handrails, and a curving wooden reference desk all allow for interstitial space that is neither purely functional nor purely decorative. In this way, Aalto shows the importance of space for movement and mingling in libraries. If a library was purely a space to house resources, it could be done much more efficiently. Rather, Aalto provides a model that celebrates the library as a functional, symbolic, comfortable, and beautiful interface between the citizens of Viipuri and their cultural record.

49.

The waving wood ceiling is a departure from modernist functional sensibilities.

50.

The reading spaces offer no views to exterior, but are daylight by a grid of skylights above.

51.

The central reference desk acts as the heart of the library.

PROGRAM
ANALYSIS
PUBLIC LIBRARY

FUNCTION

As the library hosts activities that range from private, quiet places to loud, community gatherings, the design must separate active and passive zones in both plan and section.

The library requires a rigorous order to ensure the efficient acquisition of library collection materials. As a result, the library plan must be structured around an order that is clear for library patrons.

With the complex variety of functions within the library, the placement of the reference desk must be in a central location to guide library patrons to distinct areas of the library.

ECONOMY

As the library will be a shared community investment for many years to come, design and construction must be completed at a high level.

FORM

As the library exists within a rich cultural history, the plan must interpret the ideas of the democracy and openness.

As the library is a public building, the plan should connect in multiple ways to the surrounding Riverfront Park.

As libraries benefit from a sense of discovery and mystery, the plan must balance the order required for locating specific resources with the mystery required for discovery.

TIME

As the program of the library is evolving to meet the needs of the community, the plan must be flexible enough to accommodate future changes in program.

As the way we connect with resources evolves, the plan must be flexible to adjust to changes in physical and digital resources.

Entry
Cafe
Atrium
Auditorium
Children's Book Stacks
Reference Desk
Children's Group Story Time
Children's Reading Area
Children's Play Area
Non-Fiction Book Stacks
Fiction Book Stacks
Library Catalogue
Restrooms
Computer Access
Private Study Area
Group Study Area
Reading Area
Interactive Art
Recording Studio
Music Archive
Film Archive
Theater
Skating Rink
Offices
Administration

◆ Adjacent
◆ Accessible
◇ Not Important

52. INTERACTION MATRIX

PROGRAM ANALYSIS
PUBLIC LIBRARY

SPACE LIST

Space Name	People	Capacity	Unit(s)	Net Area	Net: Gross	Gross Area
Library Resources						
Reference Desk	3	6	Main Desk	75	0.75	100
Non-Fiction Book Stacks		200	A,B-Stacks	15,000	0.75	20,000
Fiction Book Stacks		200	B-Stacks	15,000	0.75	20,000
Film Archive		50	A-Stacks	3,750	0.75	5,000
Music Archive		50	A-Stacks	3,750	0.75	5,000
Library Catalogue	3	6	Desk	75	0.75	100
Reading Area		200	A-Seating	7,500	0.75	10,000
Children's Area						
Children's Book Stack		200	A-Stacks	18,750	0.75	25,000
Children's Group Story Time	10	50		3,750	0.75	5,000
Children's Reading Area		200	B-Seating	9,000	0.75	12,000
Children's Play Area		75		7,500	0.75	10,000
Functional Spaces						
Computer Access		225	Desk	11,250	0.75	15,000
Private Study Area		75	Table	7,500	0.75	10,000
Group Study Area		115	Table	11,250	0.75	15,000
Community Gathering Space						
Entry		80	Bench	7,500	0.75	2,000
Café		60	Table	750	0.75	1,000
Atrium		300	Bench	1,500	0.75	10,000
Auditorium		360	Flexible Table	1,800	0.75	2,400
Theater		300	Fixed Seating	1,500	0.75	2,000
Interactive Art		75	Bench	375	0.75	500
Skating Rink		150	Bench	15,000	1.00	15,000
Private Spaces						
Offices		35	Desk	5,000	0.50	10,000
Administration			Desk	500	0.50	1,000
Restrooms		25		250	0.50	500
Mechanical				29,475	0.75	39,300

53.

Comments

The reference desk must be highly visible and thoroughly connected.
The non-fiction books stacks should be placed and organzied to shape traffic and define reading spaces and views.
The fiction book stacks should be placed and organized to shape traffic and define study areas and views.
The film archive stacks should be placed and organized to shape traffic and define views.
The music archive stacks should be placed and organized to shape traffic and define views.
The library catalogues should be placed at activity nodes around the stacks to ensure ease.
The reading area should be located with exemplary views and connection to exterior public space and natural light.

The children's book stacks should be placed and organized to shape traffic and define reading spaces and views.
The children's story time should be located in a slightly isolated position to create a unique theatrical atmosphere.
The children's reading area should be located with exemplary views and connection to exteior public space and natural light.
The children's play area should be in a highly visible area to ensure safety and freedom for children and parents.

The computer access should be located near the main circulation due to high use, while limiting natural light to control glare.
The private study areas should balance privacy with a visual connection to the rest of the library.
The group study areas should balance privacy with a visual connection to the rest of the library.

The entry should be clear and easy to maintain due to heavy traffic.
The café should be located near the entry, connecting to the active functions of the library.
The atrium should act as the interior gathering and movement space for the library, flexible for multiple uses.
The auditorium should be available for a variety of community functions, clearly visible to the community.
The theater should be located near the main circulation near the center of the building.
The interactive art should be an integral part of the exterior and interior circulation and gathering space.
The skating rink should be connected to Riverside Park, enhanced by the shelter of the library building.

The offices should be clearly separated from the public spaces in the library program.
The administration should be directly connected to the office and circulation space.
The restrooms should be located near the most heavily used spaces.

PROGRAM
ANALYSIS
PUBLIC LIBRARY

CHILDREN'S BOOK STACKS

NON-FICTION BOOK STACKS

COMPUTER ACCESS

CHILDREN'S READING AREA

FICTION BOOK STACKS

GROUP STUDY

SKATING RINK

54. SPATIAL COMPARISON

ADULT
READING
AREA

OFFICES

FILM
ARCHIVE

ATRIUM

CAFE

REFERENCE
DESK

CHILDREN'S
PLAY AREA

MUSIC
ARCHIVE

AUDITORIUM

INTERACTIVE
ART

LIBRARY
CATALOGUE

PRIVATE
STUDY
AREA

CHILD
GROUP
STORY

THEATER

ADMINISTRATION

RESTROOMS

ENTRY

PROGRAM
ANALYSIS
PUBLIC LIBRARY

LAND USE REQUIREMENTS				
LAND USE	People	Gross Building Area	Floors	Building Footprint
Library				
Building	1,812	235,800	3	78,600
Environmental Culture Center	45	600	1	600
Site				
Site Facilities	10	500	1	500
Parking	110	38,000	1	38,000
Skating Rink	150	15,000	1	15,000
Total				

55.

BUILDING AREA SUMMARY			
Space Name	People	Capacity	Unit(s)
Library Resources			
Reference	6	12	Desk
Resource Materials		500	A,B-Stacks
Reading Area		200	A-Seating Options
Reading, Studying			
Children's Area		525	A-Stacks, B-Seating Options
Study Area		190	Table
Community Gathering Space			
Open Gathering		515	Bench
Closed Gathering		660	Table, Fixed Seating
Exterior Gathering		150	Bench
Administration			
Offices		35	Desk
Restrooms		25	
Mechanical			
Total			

56.

GAC	Land Area
	226,971
35%	224,571
25%	2,400
	70,000
70%	715
70%	54,285
70%	15,000
	296,971

Spokane County Library District Population: 266,235
Total Registered Users: 116,003
Registered Users Per Capita: .37
Net Lending Rate: .62
Design Population: 380,322
Recommended BGSF: 235,800

Net Area	Net: Gross	Gross Building Area
		60,200
150	0.75	200
75,000	0.75	50,000
7,500	0.75	10,000
		52,000
39,000	0.75	52,000
30,000	0.75	40,000
		32,900
10,125	0.75	13,500
3,300	0.75	4,400
15,000	1.00	15,000
		11,500
5,500	0.50	1,100
250	0.50	500
29,475	0.75	39,300
		235,800

57. MACRO

North American Geology (USGS)
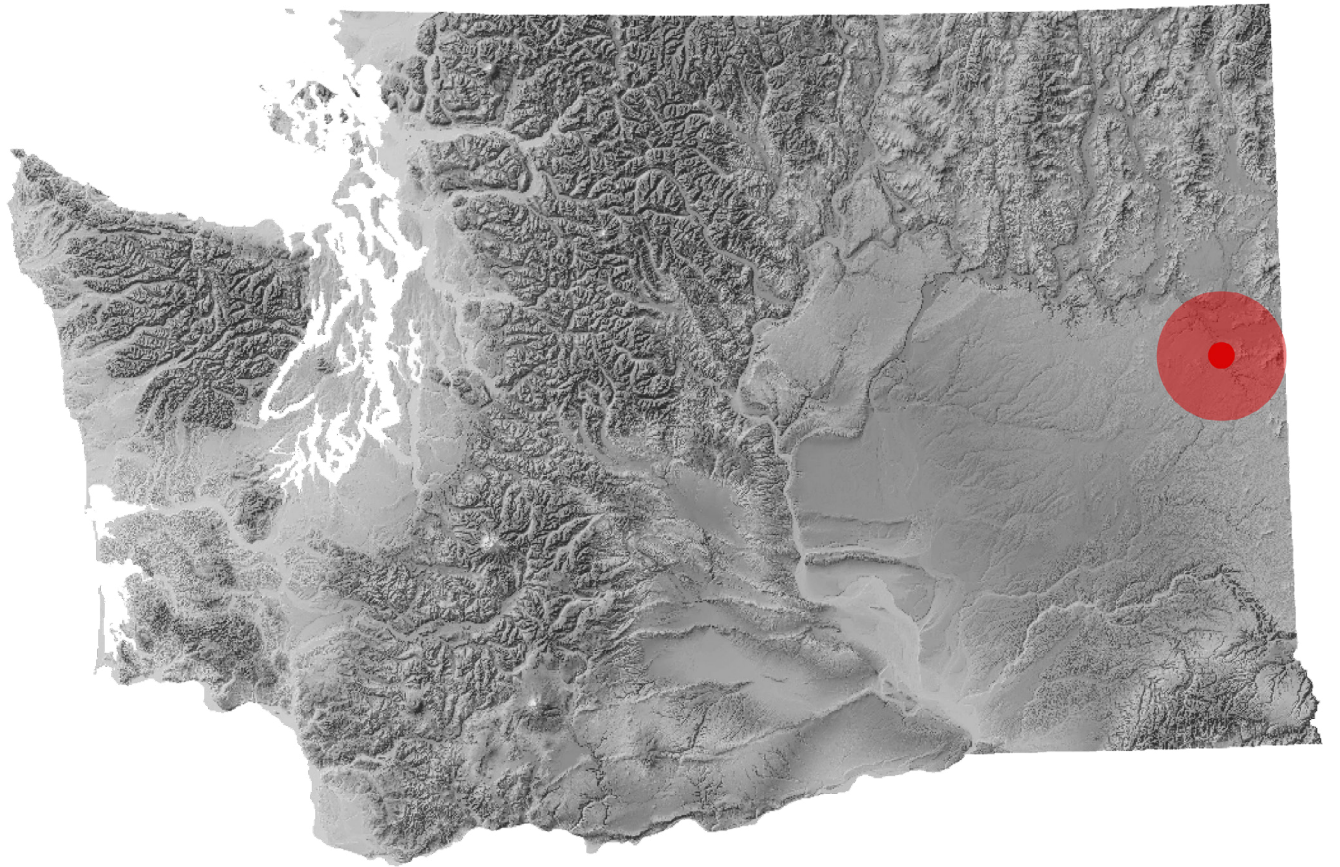
58. STATE

Washington Geology (WA DNR)

SITE
ANALYSIS
SCALE
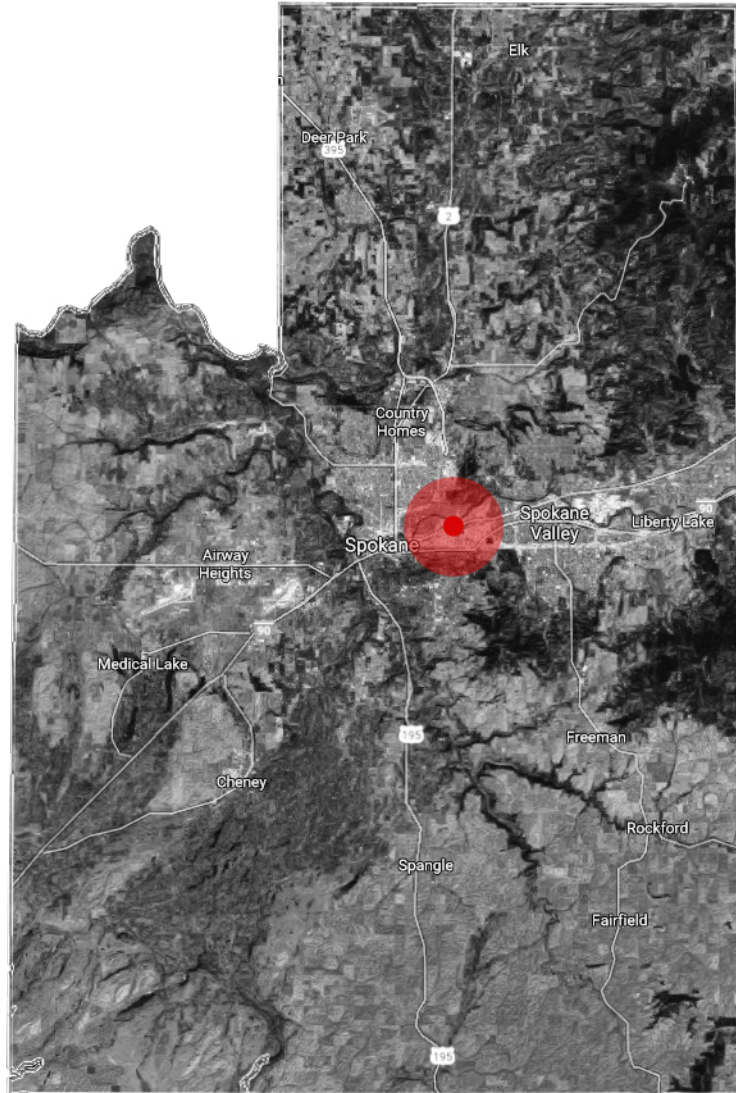
59. COUNTY

Spokane County (Google Maps)
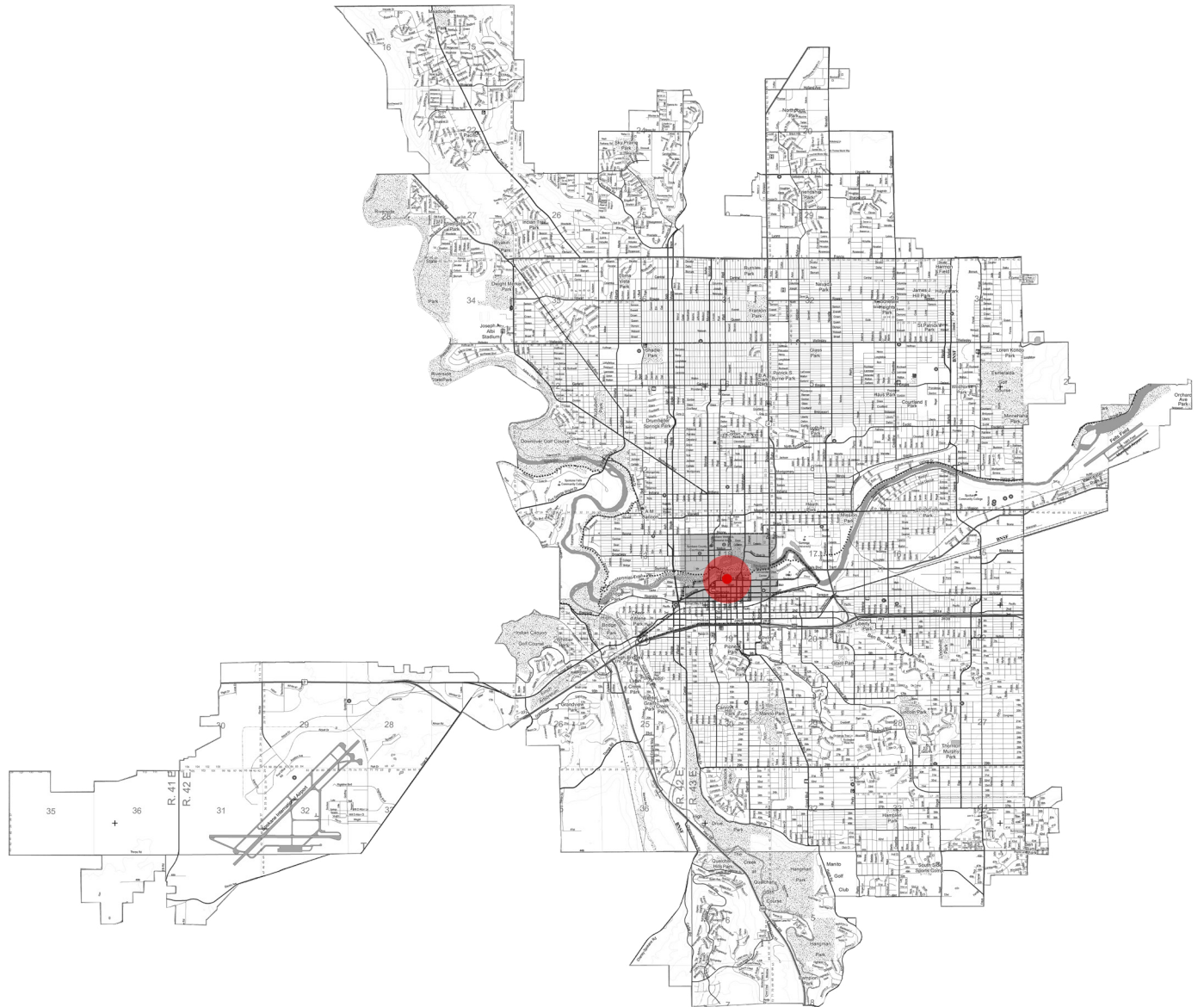
60. CITY

City of Spokane (City of Spokane)

SITE
ANALYSIS
OVERVIEW
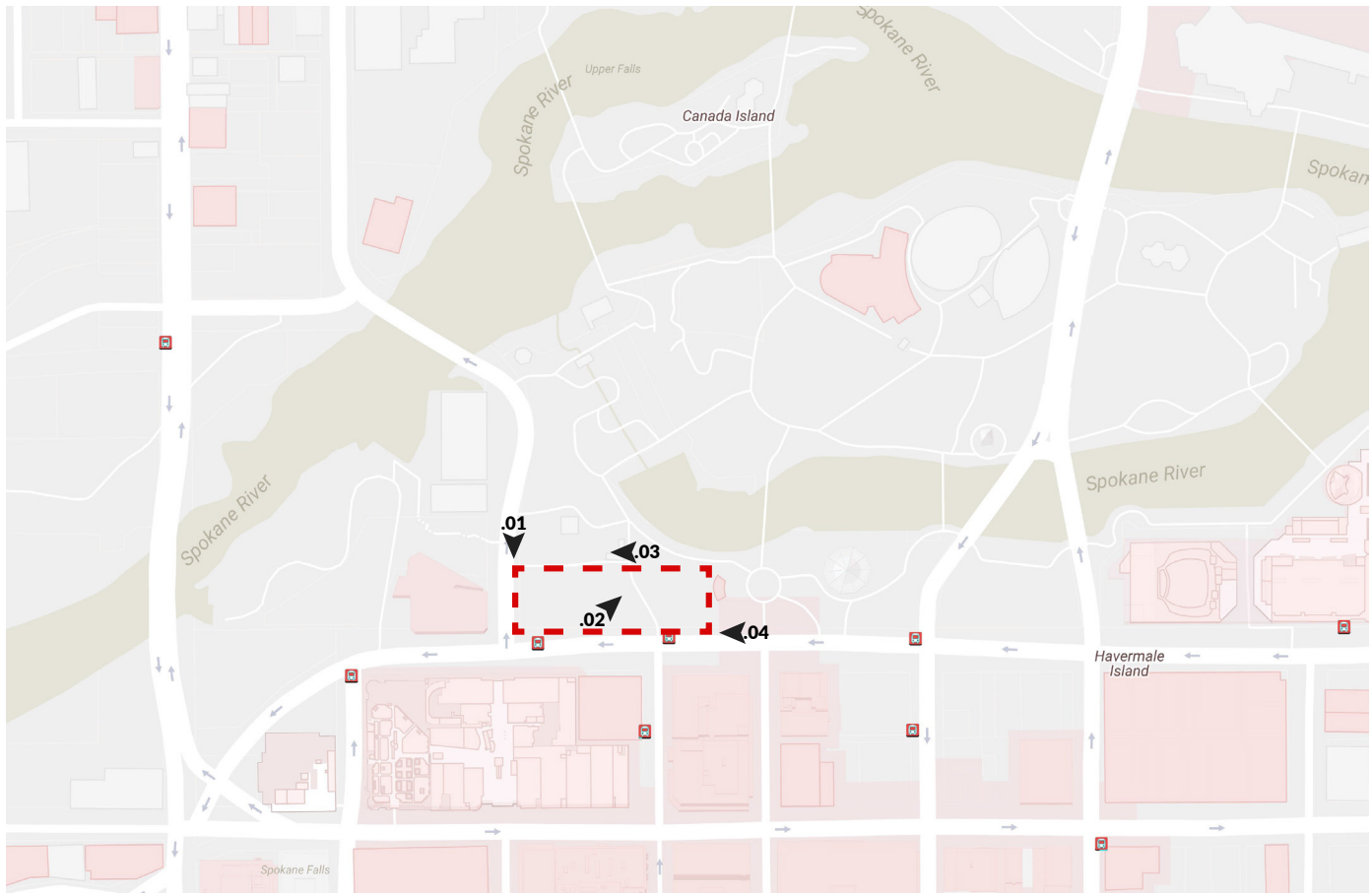
61. SITE
Street (Google Maps)

The site context and photos reveal the cultural significance of the site. The pavilion of the 1974 World Expo and railroad tower (.02) show the history of the area, while the gondola (.03) and the Bloomsday runner sculptures (.04) show how citizens utilize the space currently.

These existing conditions inform patterns of use to be maintained and celebrated as well as visual and historical connections to be preserved. Existing trees and vegetation that date back to the restoration that occurred for the 1974 Expo are numerous and will influence shading and daylighting. The project must be fully integrated into the existing value of the park.

01.

02.

03.

04.

62.

SITE
ANALYSIS
RIVER FRONT

63. OPEN WATER

The adjacency to the Spokane River informs the views and circulation paths necessary to connect the site to Spokane's natural beauty. In the middle of the downtown core, the river, falls, and accompanying features are a source of respite for all citizens as well as Spokane's top asset for visitors ("Riverfront Park Master Plan - City of Spokane, Washington," n.d.).

The site's connection to the river represents a significant opportunity to provide cultural context for the public library. Understanding environmental and climatic context are crucial to address issues facing future generations. The architecture of the library can connect the public to the site, creating context for understanding Spokane's natural environment.

64.

65.

66.

67.

SITE
ANALYSIS
RIVER QUALITY
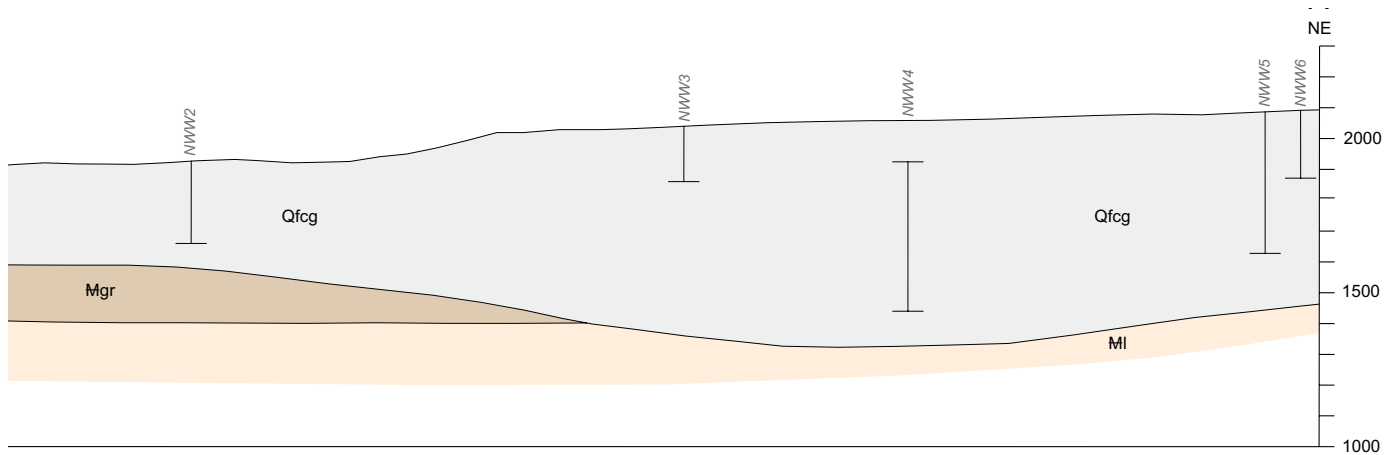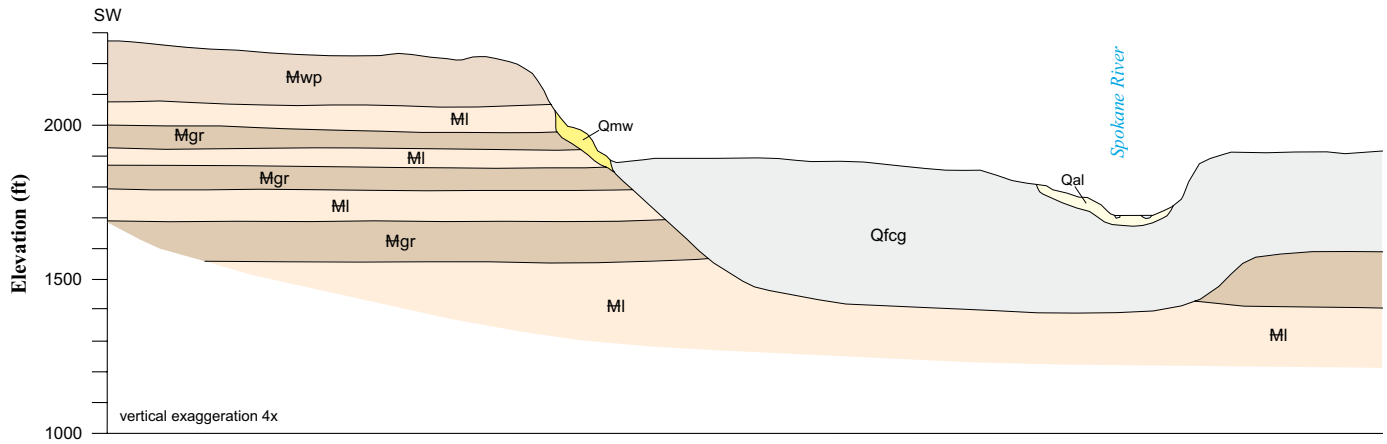
68. SPOKANE RIVER SECTION (WA DNR)

The sharp drop in elevation along the river bank informs views of the river as well as limits options for underground parking due to potential soil erosion.

Fortunately, the firm soil conditions do not limit architecture near the site, as previous buildings have not forced serious erosion issues.

69.

70.

71.

72.

SITE
ANALYSIS
PEDESTRIAN ACTIVITY

Legend:

⎯⎯	0 - 20 (Lowest)
⎯⎯	21 - 35 (Low)
⎯⎯	36 - 45 (Moderate)
⎯⎯	46 - 55 (High)
⎯⎯	56 - 100 (Highest)
⎯⎯	Spokane Transit Authority High Performance Transit Network
●	High Usage Transit Stop

Center and Corridor

- Corridor
- District Center
- Employment Center
- Neighborhood Center
- Joint Planning Area
- Urban Growth Area
- City of Spokane
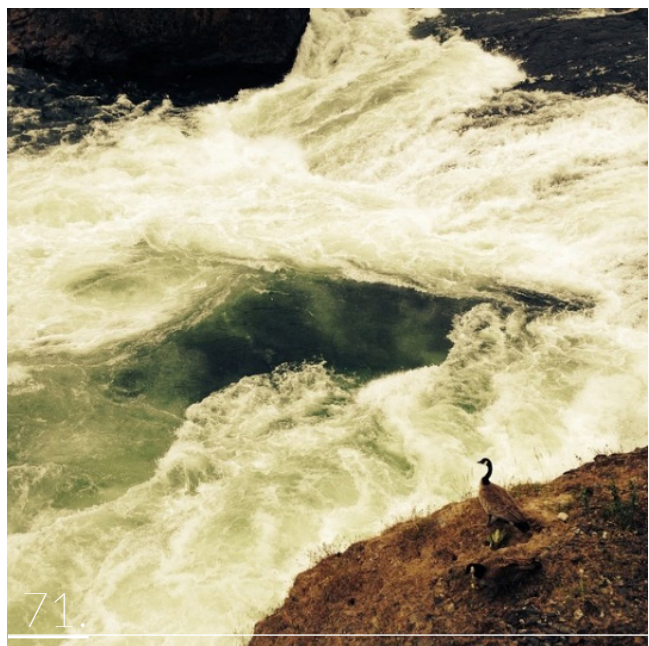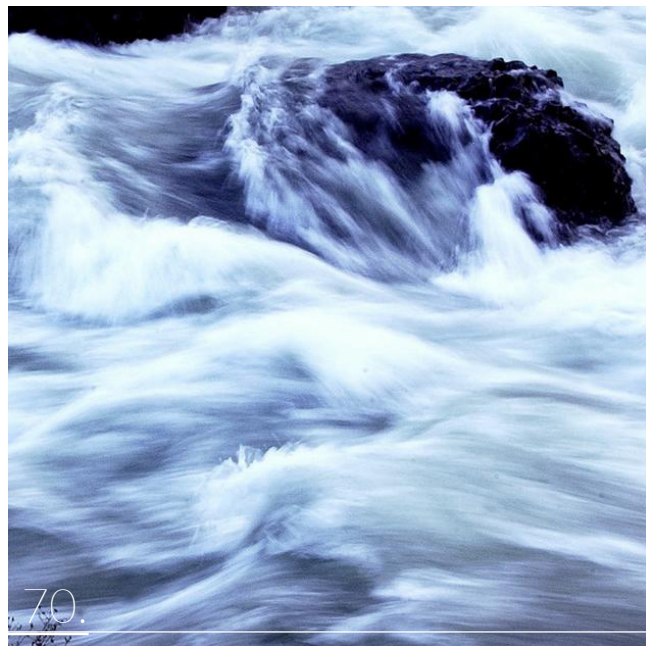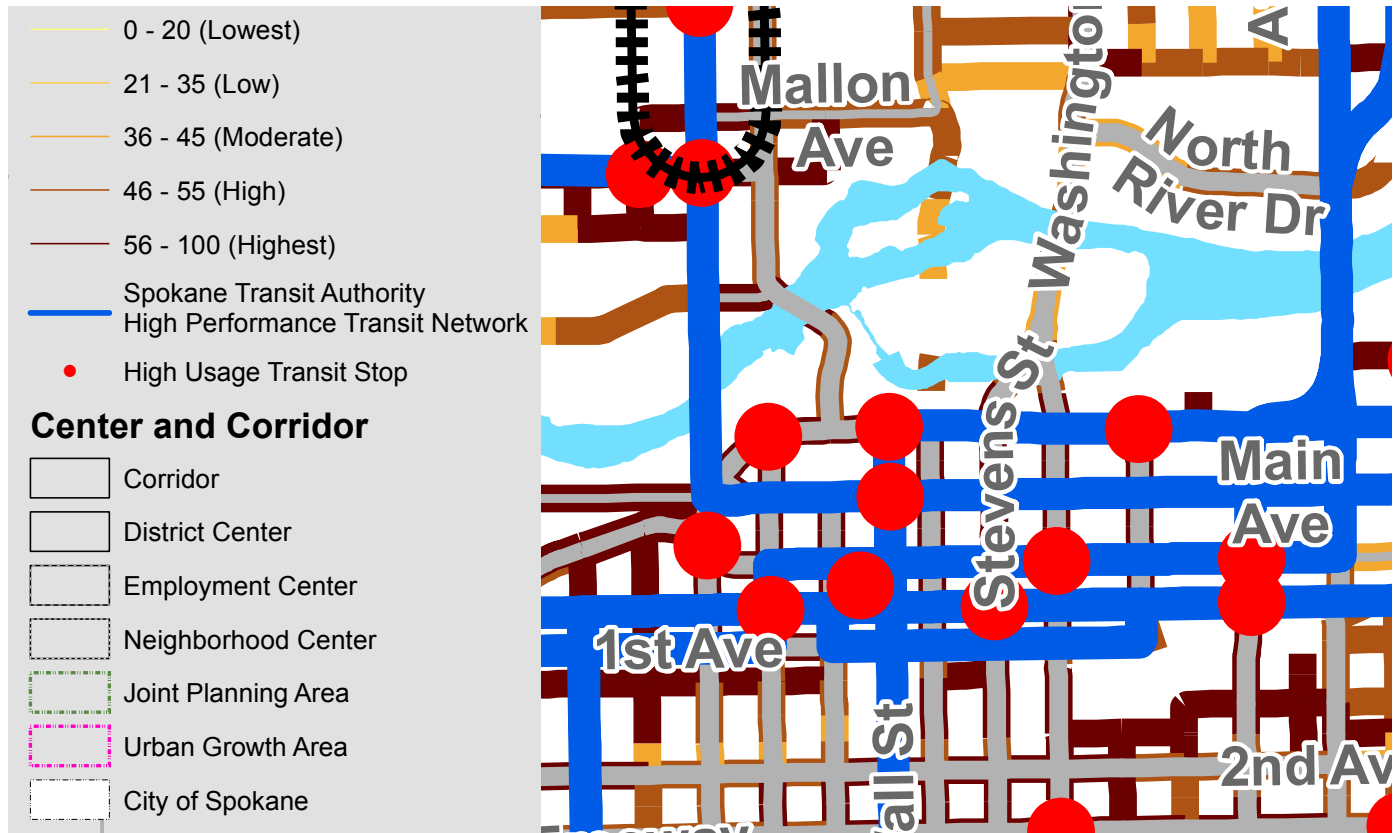
73. PEDESTRIAN DEMAND

The high pedestrian demand immediately next to the site accommodates higher levels of accessibility and inclusion for all citizens, an important goal for this project. The site presents ample opportunity to connect the project closely with public transportation infrastructure. A resulting challenge could be the availability of individual vehicle parking (City of Spokane).

As seen in the opposite photos, the pedestrian activity persists in a northern city with a climate that experiences all seasons. The need for both interior and exterior public space is important in a city with variable weather conditions to encourage a public sphere that is active through the winter.

74.

75.

76.

77.
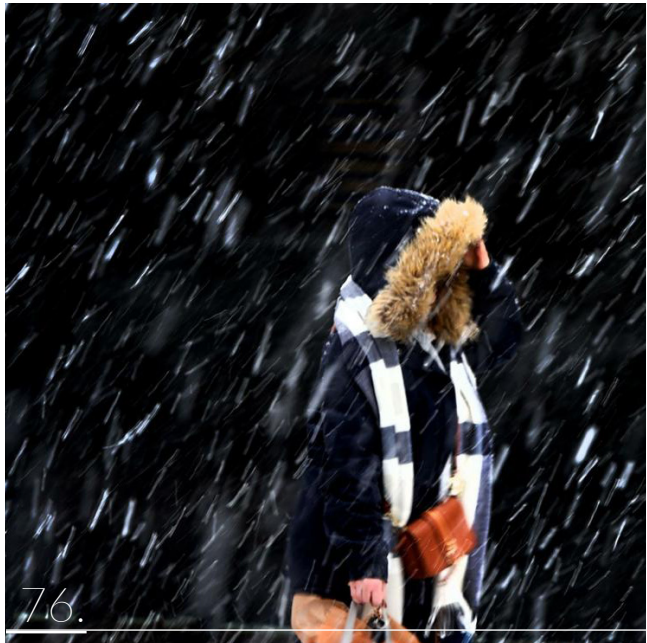
SITE
ANALYSIS
PEDESTRIAN SAFETY
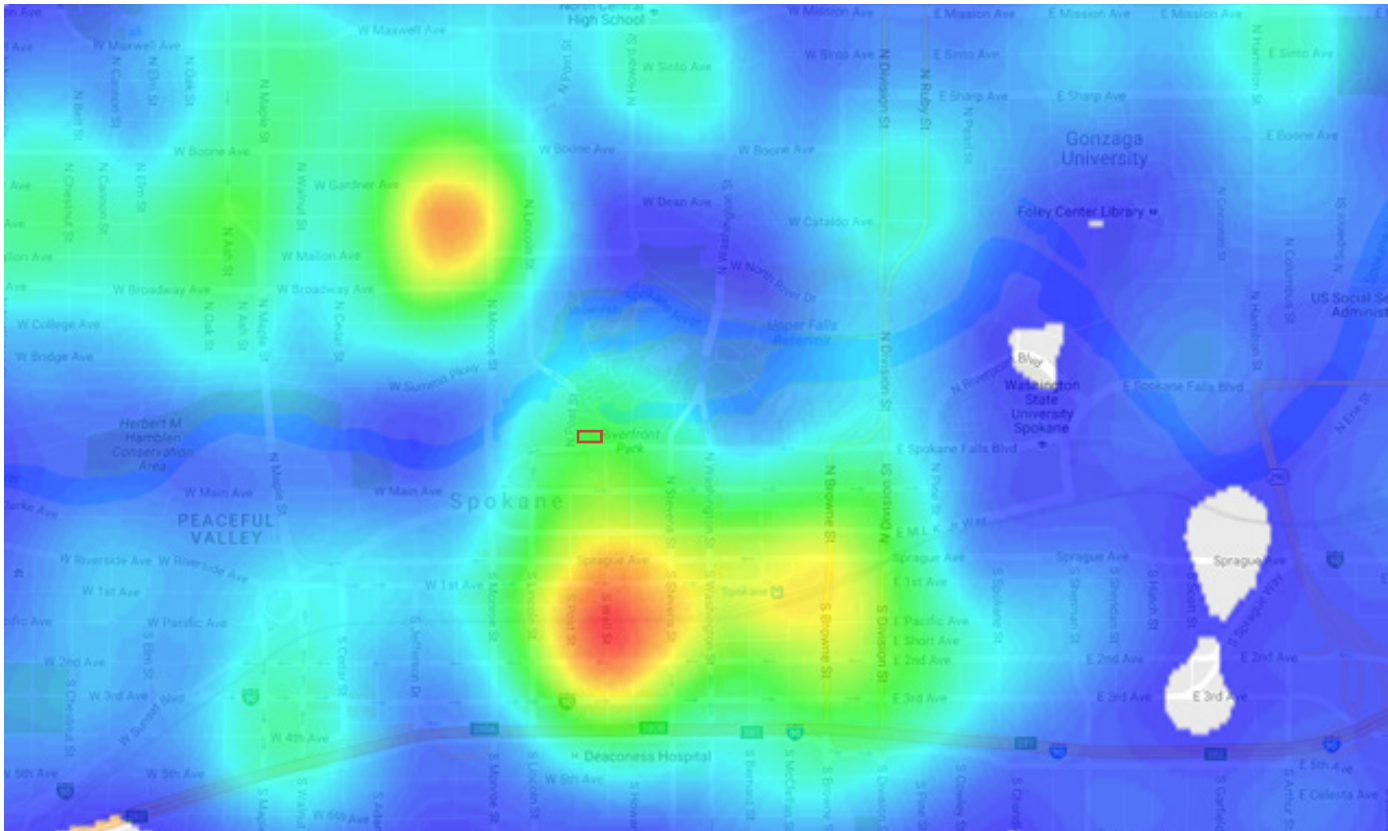
78. SPOKANE CRIME DENSITY

Accompanying the dense and accessible location are higher levels of crime. The architectural solution to the issues that result from a high use public building, such as uncomfortable encounters with the homeless population, will be an important part of the project (City of Spokane).

Balancing the needs of all members of the public while maintaining safety is a pervasive problem in urban public spaces.
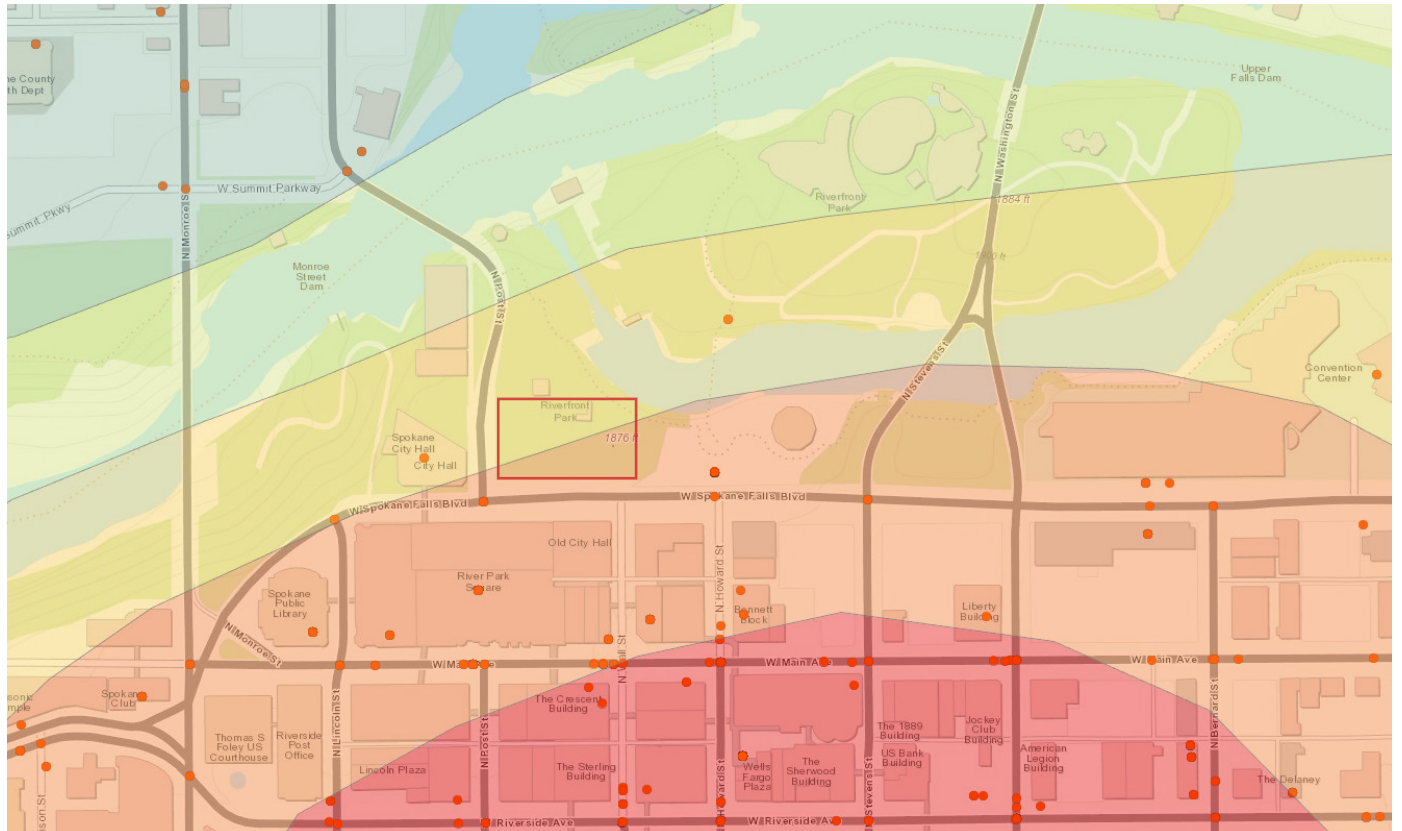
79. DOWNTOWN SITE CRIME DENSITY

Closer to the site, one can see the higher rates of crime to the south. Including transparency and sufficient lighting can lead to safer conditions.

The concentration of criminal activity can lead to design decisions, focusing more secluded areas toward areas of low crime near the park.

BUILDING
CODE
ANALYSIS

APPLICABLE CODES

2015 International Building Code
2015 International Energy Conservation Code
2015 Washington State Energy Code (WSEC)

OCCUPANCY & CONSTRUCTION

Occupancy Type: B (E & A-3 as accessory)
Occupancy Load: 50 Net (Reading Rooms), 100 Gross (Stack Area)
Construction Type: II-A Protected Non-Combustable

DIMENSIONAL REQUIREMENTS

Maximum Height:
     B: 65 (NS), 85 (S)
Allowable Stories Above Grade:
     B: 5 (NS), 6 (S)
Fire Resistance Rating:
     B: 1 Hour (Except Partitions)
Maximum Exit Access Travel Distance:
     B: 200 (NS), 300 (S)
Minimum Exit Width:
     Approximately 100" (500 Occupants x 0.2 = 100)
Square Footage Per Ground Floor:
     Occupancy Type B: 37,500 (NS), 150,000 (S1), 112,500 (SM)

ADA Requirements

Door Width: 32" (404.2.3)
Pathway Access: 36" (403.5.1)

7' - 6"

2' - 6"

3' - 0"

4' - 0"

7' - 6"

R 3' - 0"

2' - 8"
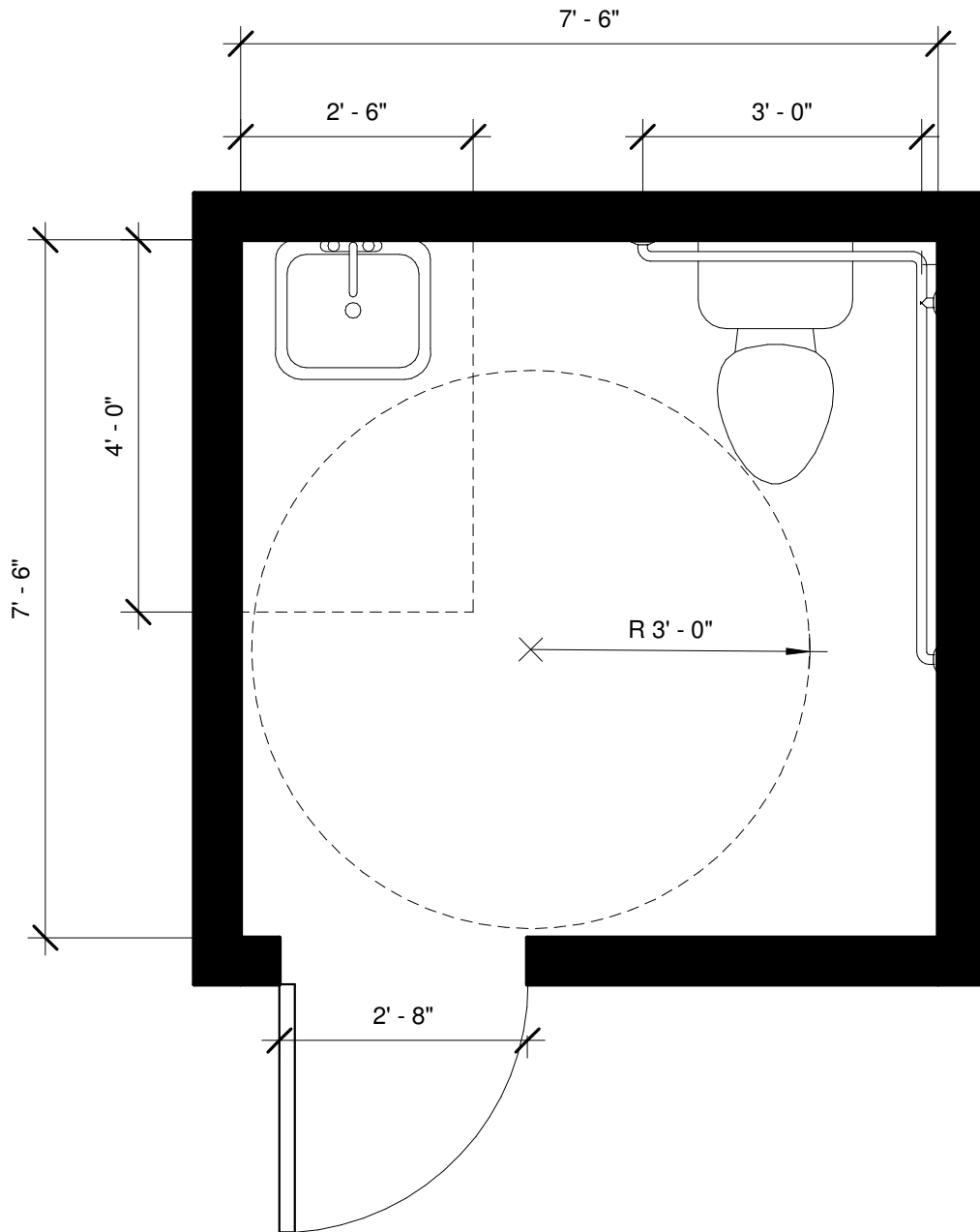
80.

ADA Sample Plan, 1/2" = 1'-0"

PLAN FOR PROCEEDING

RESEARCH DIRECTION

This thesis relies upon establishing relationships between architecture and information. The connections will be explored through the following:

An understanding of the public library typology will be gathered from observations from the descriptive research. The current approach to library design has begun to prioritize community engagement, setting architectural precedents to observe and evaluate. This basis of information is necessary to begin the architectural design process.

The theoretical premise will guide the focus of the interpretive research, concentrating on the ways architecture has related with information in the past. This study includes information housed in both physical and digital media, establishing relationships between digital and physical information. The resulting understanding of augmented spaces is necessary to begin the architectural design process.

Descriptive research through interviews will act as a balance to the augmented space research. Interviewees will be familiar with all the mundane tasks that culminate in a well functioning library, providing a perspective grounded in realism. Combined with the interpretive research, the architectural design process can progress as an innovative and pragmatic architectural solution.

PROCESS PLAN DOCUMENTATION

Every Monday afternoon, I will document the previous week's work. Scheduling the documentation on Monday allows for a significant amount of time to catalogue the work in correct folders. Following the documentation I will backup the files on a physical hard drive and Google Drive. Physical models will be photographed and kept in an assigned studio cabinet in Renaissance Hall.

M	T	W	TH	F
Possible Thesis Work 7.30 - 11.00	Work 7.30 - 12.30	Possible Thesis Work 7.30 - 11.00	Work 7.30 - 12.30	Possible Thesis Work 7.30 - 11.00
Thesis Work 11.00 - 4.00		Thesis Studio 11.00 - 4.00		Thesis Studio 11.00 - 4.00
	Seminar 1.30 - 4.00		Thesis Work 1.30 - 6.00	
Documentation 4.00 - 6.00	Thesis Work 4.00 - 6.00	Thesis Work 4.00 - 6.00		Thesis Work 4.00 - 6.00

81.

PROJECT
PLAN
DESIGN METHODOLOGY

Week 1 01.09	Week 2 01.16	Week 3 01.23	Week 4 01.30

Interview
01.24 - 01.30

Case Study
01.16 - 01.24

Case Study
01.30 - 02.07

Iterative Modeling
01.24 - 02.29

Literature Review
01.09 - 01.24

Document
01.16

Document
01.23

Document
01.30

82.

Week 5 02.06	Week 6 02.13	Week 7 02.20	Week 8 02.27

Interview
02.07 - 02.13

Interview
02.21 - 02.27

Case Study
02.13 - 02.21

Document
02.06

Document
02.13

Document
02.20

Document
02.27

PROJECT
PLAN
SCHEDULE

	Week 1 01.09	Week 2 01.16	Week 3 01.23	Week 4 01.30	Week 5 02.06	Week 6 02.13	Week 7 02.20	Week 8 02.27

Context Analysis
01.09 - 1.27

Active Systems
02.15 - 03.06

Concept Analysis
01.09 - 1.18

Structure
02.08 - 03.06

Floor Plan Development
01.18 - 02.24

Sectional Development
01.18 - 02.24

Spatial Analysis
01.18 - 02.15

Passive Systems
01.30 - 02.15

Materiality
02.08 - 03.06

Envelope
02.08 - 03.06

Research / Program
01.10 - 02.08

83.

| Midterm Review | Week 10 | Week 11 | Week 12 | Week 13 | Week 14 | Week 15 |
| 03.06 | 03.13 | 03.20 | 03.27 | 04.03 | 04.10 | 04.17 |

Spring Break
03.13 - 03.17

Design Development
03.20 - 03.31

Graphic Development
03.20 - 04.07

Presentation Boards
04.05 - 04.20

Presentation
04.20 - 05.04

PROJECT
PROCESS
DOCUMENTATION

PROJECT
PROCESS
DOCUMENTATION
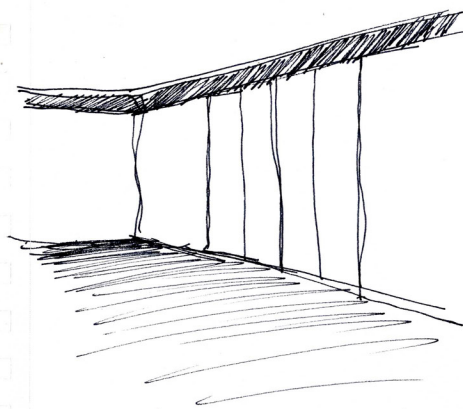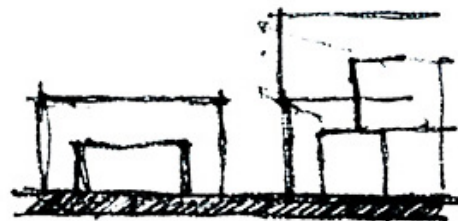
LARGE ROTATING
ENTRY DOORS
CAN ACT AS
VARIABLE, MOVING
SURFACES.
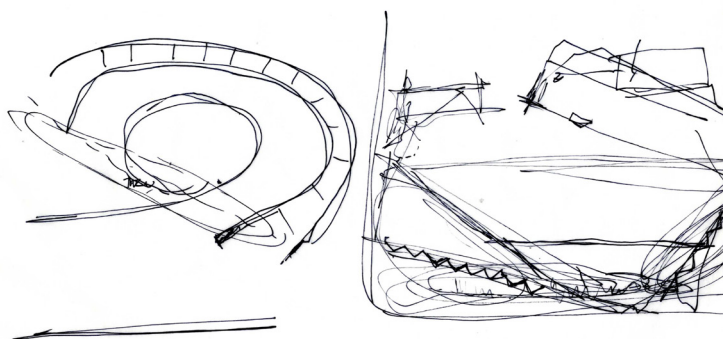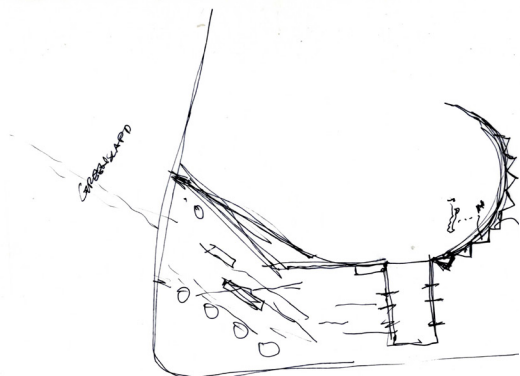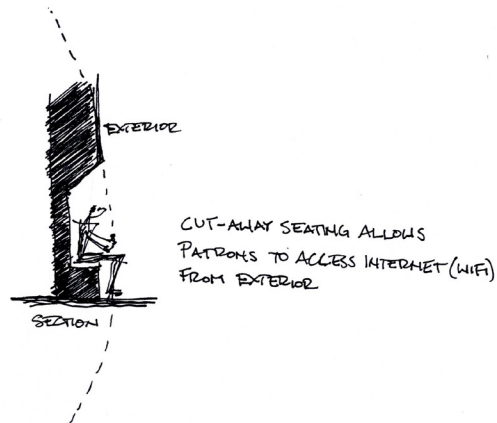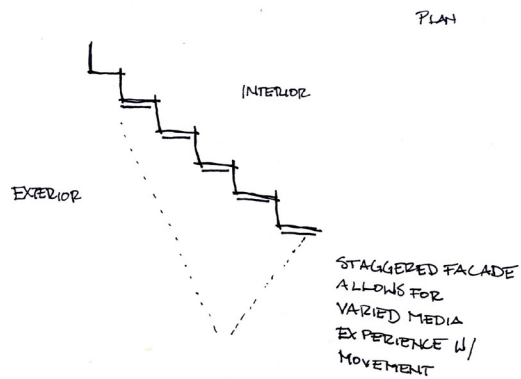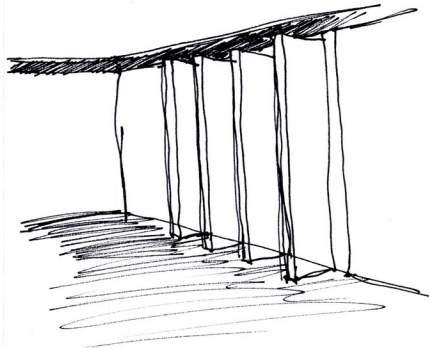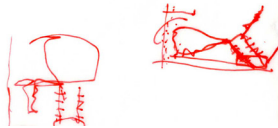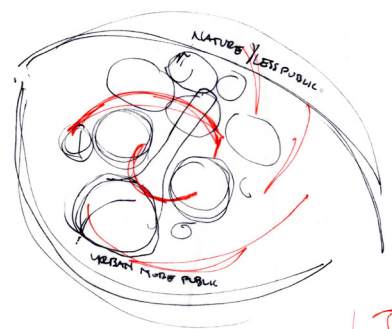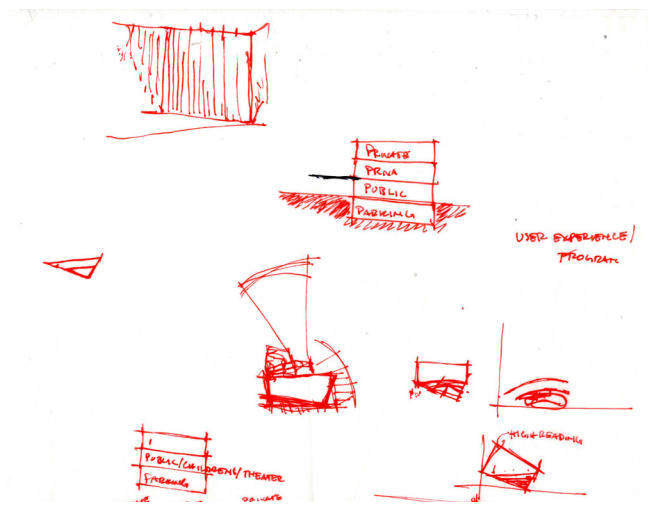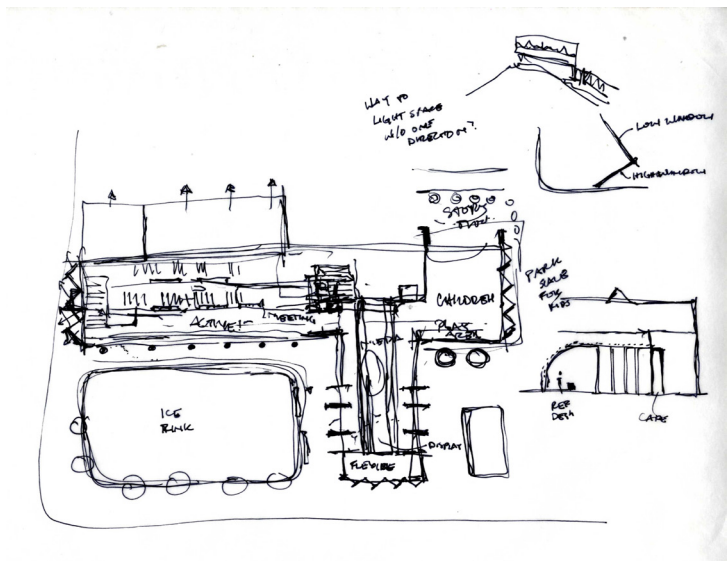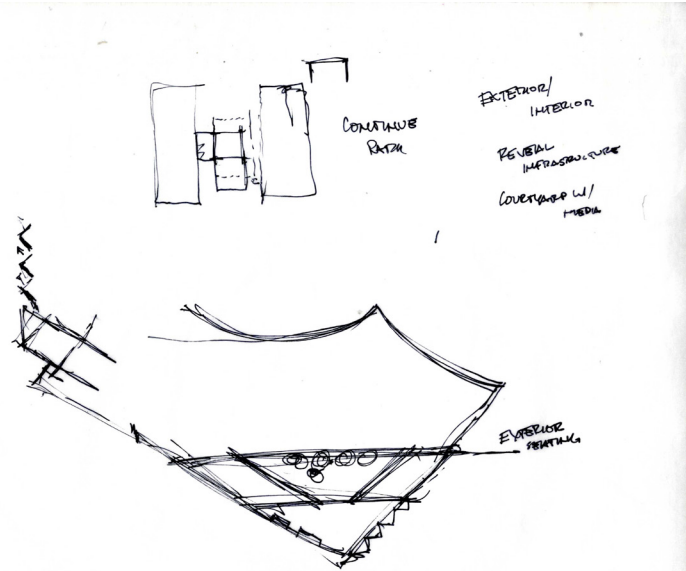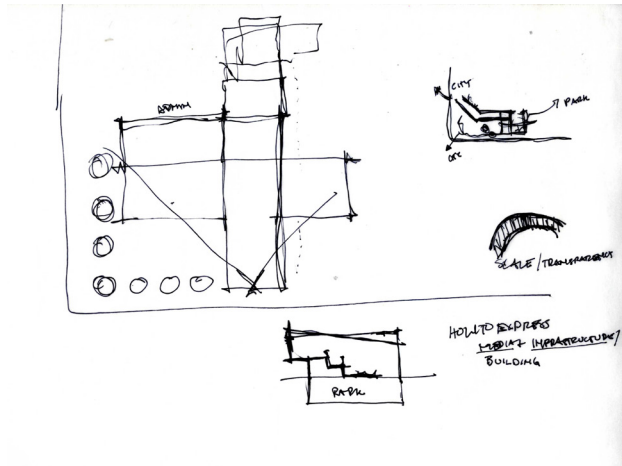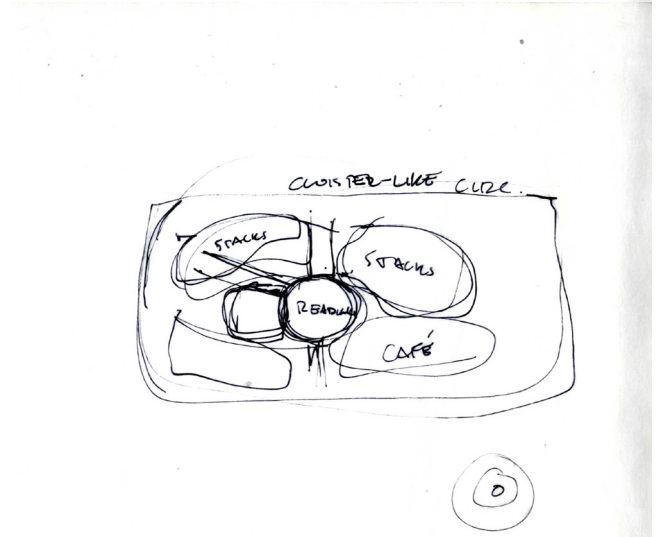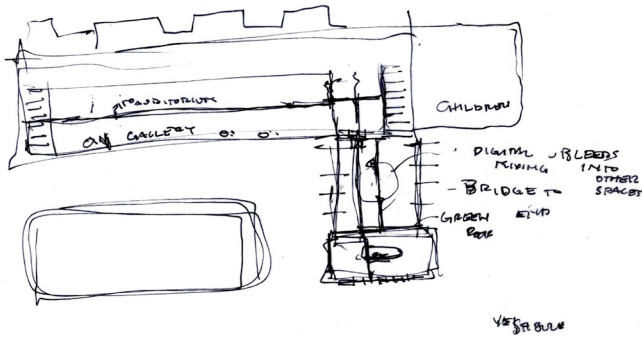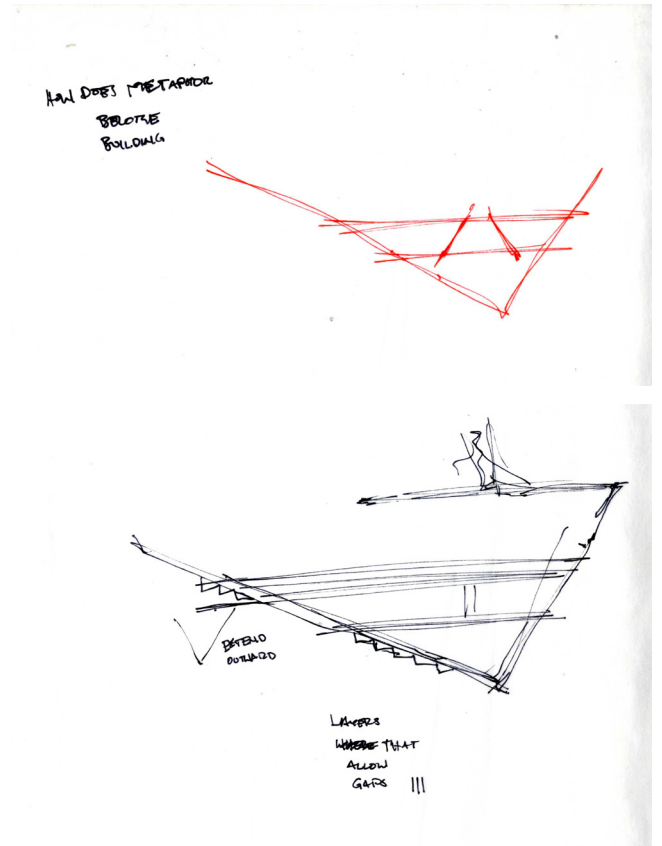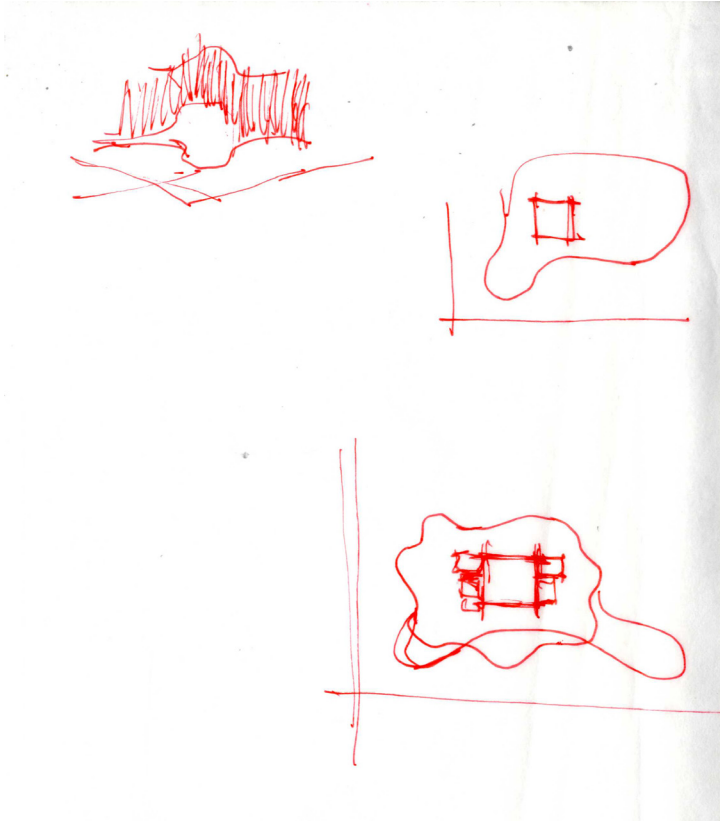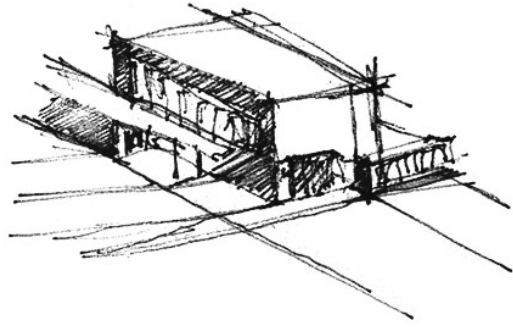
PLAN

INTERIOR

EXTERIOR

STAGGERED FACADE
ALLOWS FOR
VARIED MEDIA
EXPERIENCE W/
MOVEMENT

EXTERIOR

CUT-AWAY SEATING ALLOWS
PATRONS TO ACCESS INTERNET (WIFI)
FROM EXTERIOR

SECTION

PROJECT
PROCESS
DOCUMENTATION

PRIVATE

PUBLIC

PUBLIC

PRIVATE

COURTYARD

OFFER GLIMPSE

PLAN SKETCHES

AUD

SKYLIGHT

SUPPORT STUDY

STACK

ATRIUM STACK

CAFE

NOOKS & CRANNIES

MEDIA RAMP/OPEN TO BELOW

AUD

READ STACK YOUTH

AUD

CAFE YA

CHILD

GEN

MEETING

ADMIN

COMPUTER LEARN

ADMIN

SERVICE

LAYERS OF TRANSPARENCY

OPEN

B

DESK

PLAN SKETCHES

MEET

CHILD

COMPUTER

POEM

YA

READ GEN

CHILD

CHILD ADMIN

ADMIN

SPEZI

GEN

AUD

PUBLIC

BATH

SKYLIGHT

CHILD

GEN

MEETING ADMIN

AUD MEET

YA
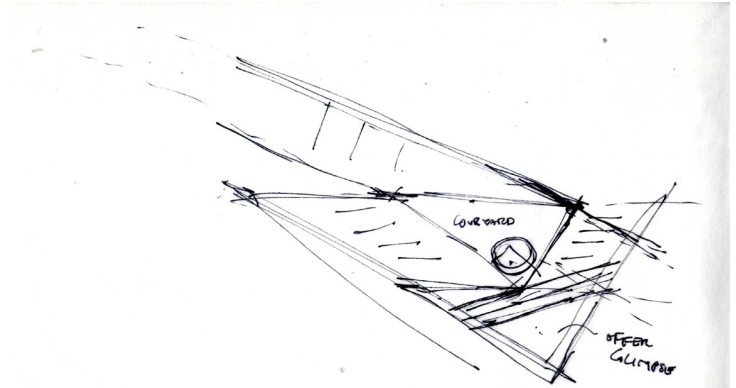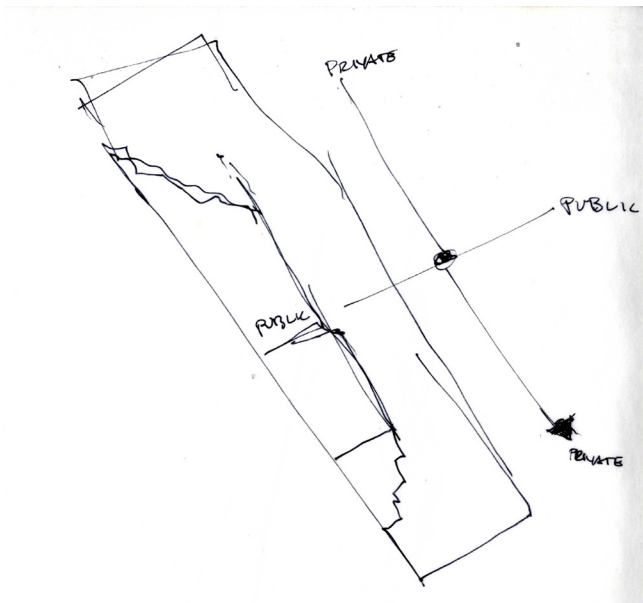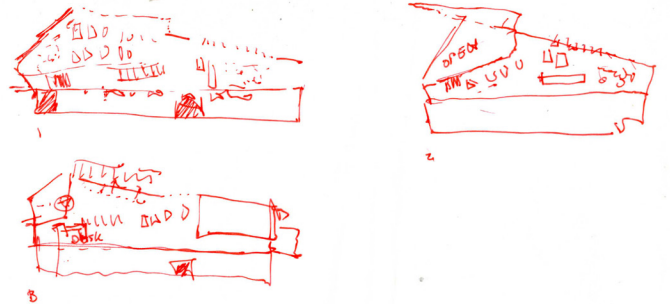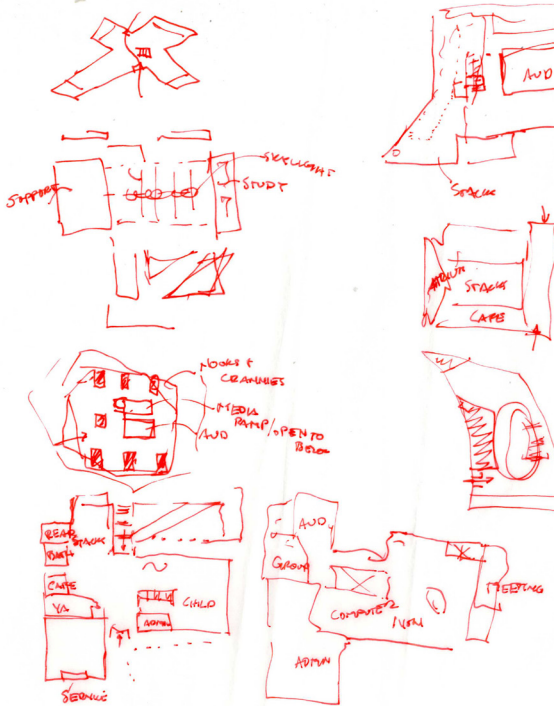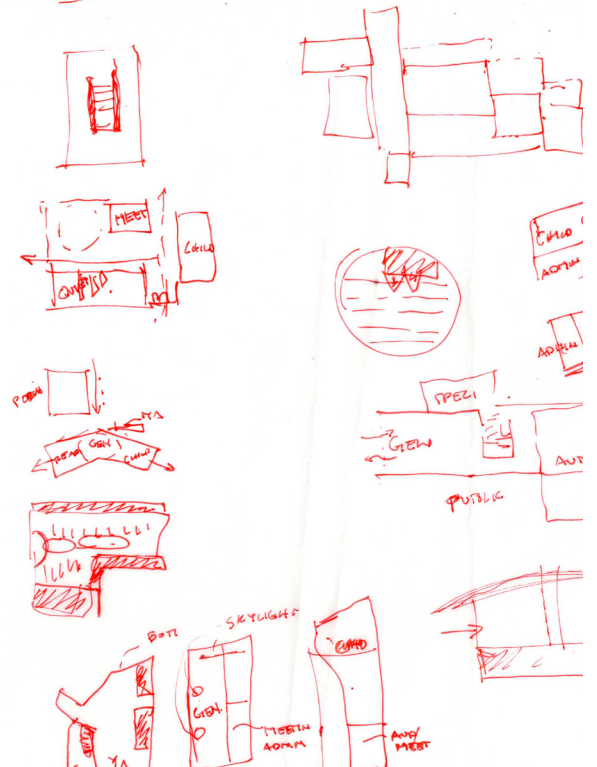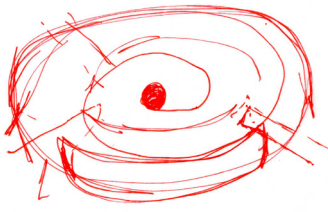
PROJECT
PROCESS
DOCUMENTATION

"**KNOWLEDGE** IS NOT CHEAP. IT TAKES AN EXPERT TO MAKE IT **ACCESSIBLE**. AND IT NEEDS TO BE PRESERVED FOR THE FUTURE."

-Kathy Enger, Northern Lights Library Network

"THE BIG THING IS, BECAUSE LIBRARIES AND TECHNOLOGIES AND **COMMUNITIES** ARE ALWAYS **CHANGING**, CREATING SPACES THAT WILL REMAIN RELEVANT OVER A LONG PERIOD OF TIME [...] **FLEXIBILITY** BUILT IN."

-Tim Dirks, Fargo Public Library Director

Additional Interviewees
Sandra Hannahs, West Fargo Public Library Director
Laura Probst, Concordia Carl B. Ylvisaker Library Director

PROJECT
PROCESS
DOCUMENTATION

RADIAL**PROGRAM_1**

SKATING RINK

INTERACTIVE

CIRCULATION

FICTION STACKS
AUDITORIUM
NON-FICTION STACKS
READING AREA
ENTRY
PRIVATE STUDY
STORY TIME
CHILDREN'S PLAY AREA
ENTRY CAFE
GROUP STUDY
ADMIN
COMPUTER ACCESS
CHILDREN'S STACKS

SKATING RINK

PLAN

SKATING RINK | ENTRY | INTERACTIVE | CIRCULATION | COMPUTER ACCESS | NON-FICTION STACKS | FICTION STACKS | GROUP STUDY | PRIVATE STUDY | ADMINISTRATION | READING AREA | STORY TIME | CHILDREN'S STACKS | CHILDREN'S PLAY AREA | CIRCULATION | INTERACTIVE | CAFE | ENTRY | SKATING RINK

SECTION

RADIAL**PROGRAM_2**

SKATING RINK

INTERACTIVE

CIRCULATION

AUDITORIUM
NON-FICTION STACKS
ENTRY
ADMIN
ENTRY CAFE
GROUP STUDY
CHILDREN'S PLAY AREA

SKATING RINK

PLAN

SKATING RINK | ENTRY | INTERACTIVE | CIRCULATION | FICTION STACKS / NON-FICTION STACKS / COMPUTER ACCESS | GROUP STUDY | READING AREA / PRIVATE STUDY / STORY TIME / ADMINISTRATION | CHILDREN'S STACKS / CHILDREN'S PLAY AREA | CIRCULATION | INTERACTIVE | CAFE | ENTRY | SKATING RINK

SECTION

RADIAL**PROGRAM_3**

ENTRY

INTERACTIVE

FICTION STACKS
NON-FICTION STACKS
AUDITORIUM
READING AREA
GROUP STUDY
PRIVATE STUDY
STORY TIME
CHILDREN'S PLAY AREA
ADMIN
COMPUTER ACCESS
CHILDREN'S STACKS
CAFE
INTERACTIVE
SKATING RINK
ENTRY

PLAN

ENTRY | INTERACTIVE | CIRCULATION | FICTION STACKS / NON-FICTION STACKS / COMPUTER ACCESS | GROUP STUDY | READING AREA / PRIVATE STUDY / STORY TIME / ADMINISTRATION | CHILDREN'S STACKS / CHILDREN'S PLAY AREA | CIRCULATION | INTERACTIVE | CAFE | SKATING RINK | ENTRY

SECTION

RADIAL**PROGRAM_4**

INTERACTIVE

FICTION STACKS
AUDITORIUM
NON-FICTION STACKS
READING AREA
CAFE
STORY TIME
ENTRY
GROUP STUDY
PRIVATE STUDY
CHILDREN'S PLAY AREA
ENTRY
COMPUTER ACCESS
ADMIN
CHILDREN'S STACKS
INTERACTIVE
INTERACTIVE

INTERACTIVE

PLAN

ENTRY | INTERACTIVE CIRCULATION | FICTION STACKS / NON-FICTION STACKS / COMPUTER ACCESS | GROUP STUDY | INTERACTIVE CIRCULATION | READING AREA / PRIVATE STUDY / STORY TIME / ADMINISTRATION | INTERACTIVE CIRCULATION | CHILDREN'S STACKS / CHILDREN'S PLAY AREA | INTERACTIVE CIRCULATION | CAFE | ENTRY

RINGS OF MOVEMENT

SECTION

86. PROGRAM & FLEXIBILITY INVESTIGATION

PLAN

ENTRY

PRIVATE
STUDY

GROUP
STUDY

INTERACTIVE

FICTION
STACKS

CHILDREN'S
STACKS

NON-FICTION
STACKS

CAFE

COMPUTER
ACCESS

INTERACTIVE

CHILDREN'S
PLAY AREA

READING
AREA

STORY
TIME

ENTRY

SECTION

FICTION STACKS

NON-FICTION
STACKS

GROUP STUDY

PRIVATE

INTERACTIVE

CHILDREN'S
STACKS

COMPUTER
ACCESS

CAFE

ENTRY

CHILDREN'S
PLAY AREA

PRIVATE

PLAN

ENTRY

PRIVATE
STUDY

GROUP
STUDY

INTERACTIVE

FICTION
STACKS

NON-FICTION
STACKS

CAFE

PRIVATE

COMPUTER
ACCESS

INTERACTIVE

READING
AREA

ENTRY

SECTION

PRIVATE

NON-FICTION
STACKS

PRIVATE

COMPUTER
ACCESS

ENTRY

CAFE

PRIVATE

AUDITORIUM

PLAN

ENTRY

GROUP
STUDY

INTERACTIVE

FICTION
STACKS

INTERACTIVE

CAFE

INTERACTIVE

CHILDREN'S
PLAY AREA

COMPUTER
ACCESS

ENTRY

SECTION

PRIVATE

STORY
TIME

NON-FICTION
STACKS

INTERACTIVE

CHILDREN'S
STACKS

COMPUTER
ACCESS

INTERACTIVE

CAFE

ENTRY

INTERACTIVE

CHILDREN'S
PLAY AREA

PLAN

INTERACTIVE

ENTRY

CIRCULATION

ENTRY

CAFE

SECTION

PRIVATE

STACKS

STACKS

PRIVATE

COMPUTER

STACKS

ENTRY

INTERACTIVE

CIRCU-
LATION

INTERACTIVE

ENTRY

PROJECT
PROCESS
DOCUMENTATION

READING AREA — PRIVATE STUDY — AUDITORIUM — STORY TIME

FICTION STACKS — NON-FICTION STACKS — COMPUTER ACCESS — CHILDREN'S STACKS

CIRCULATION

INTERACTIVE — INTERACTIVE

ENTRY — ENTRY

CAFE

PLAN

PRIVATE — NON-FICTION STACKS — INTERACTIVE — COMPUTER ACCESS — ENTRY

SECTION

FICTION STACKS — AUDITORIUM — ADMIN — STORY TIME

NON-FICTION STACKS — COMPUTER ACCESS — CHILDREN'S STACKS

CIRCULATION

INTERACTIVE — INTERACTIVE

ENTRY — ENTRY

CAFE

PLAN

PRIVATE — NON-FICTION STACKS — INTERACTIVE — COMPUTER ACCESS — ENTRY

SECTION

PLAN

PRIVATE — STORY TIME — NON-FICTION STACKS — INTERACTIVE — CHILDREN'S STACKS — COMPUTER ACCESS — ENTRY — CHILDREN'S PLAY AREA

SECTION

CIRC.

ENTRY — ENTRY

PLAN

STACKS — PRIVATE — PRIVATE — STACKS — INTERACTIVE — ENTRY — CIRC. — ADMIN — CIRC. — ENTRY

SECTION

87. PROGRAM & FLEXIBILITY INVESTIGATION

SECTION OVERLAY
OPTION 1
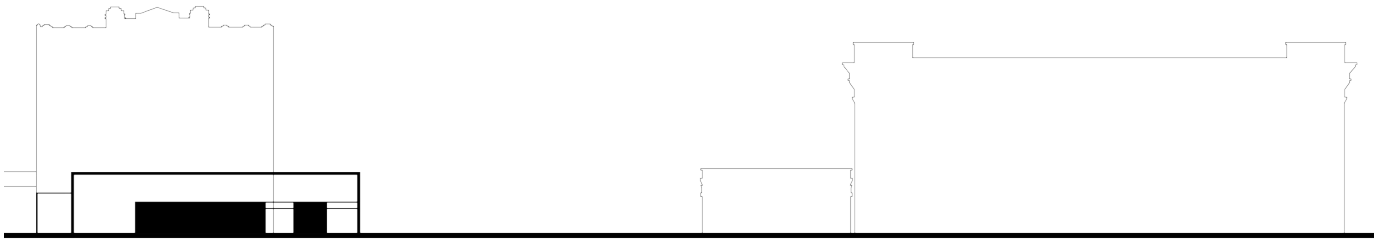
88. SCALE & ELEVATION INVESTIGATION

PROJECT
PROCESS
DOCUMENTATION

89. SCALE & ELEVATION INVESTIGATION
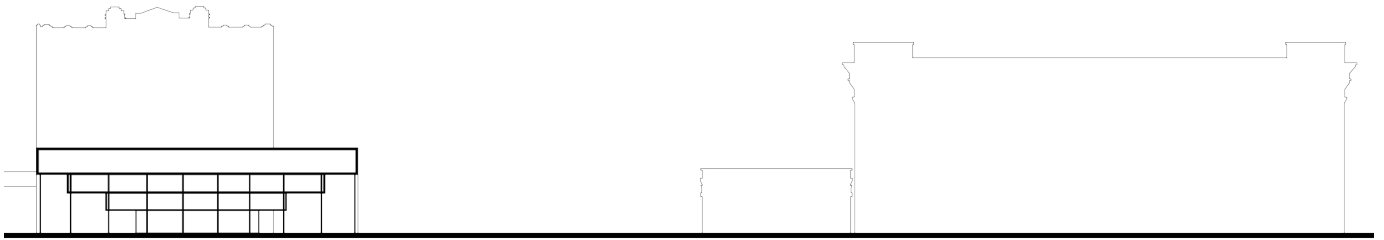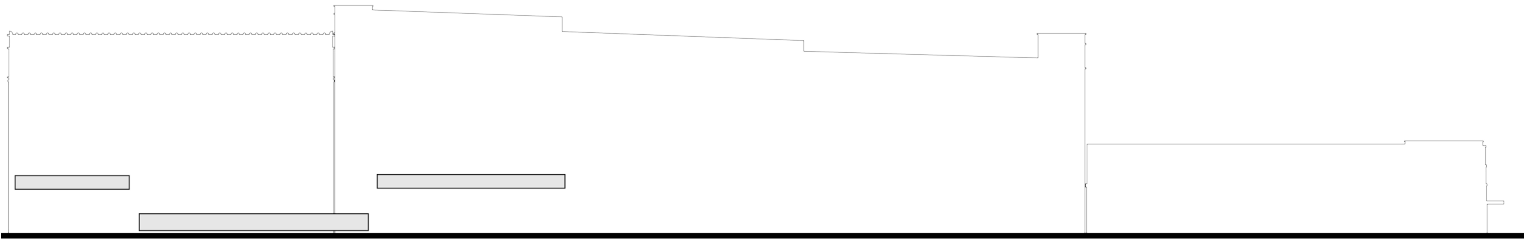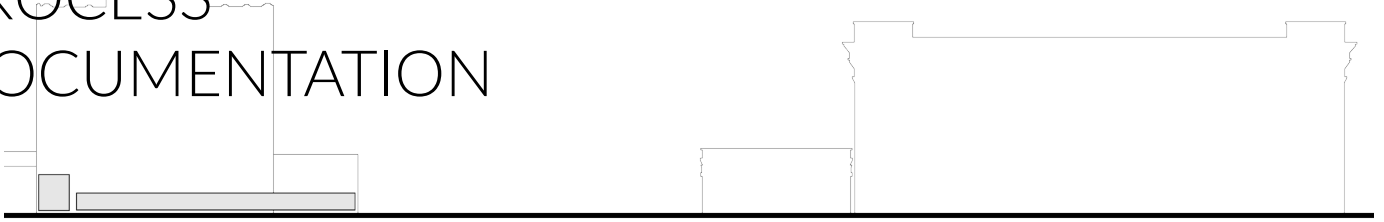
SECTION OVERLAY
OPTION 2
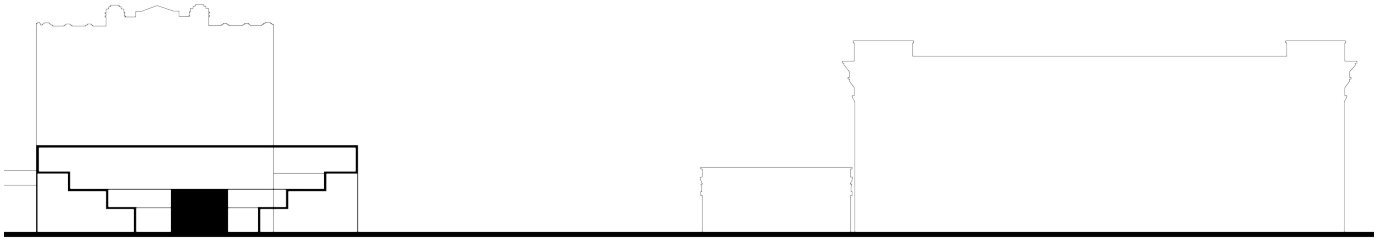
VIEW OVERLAY
OPTION 2
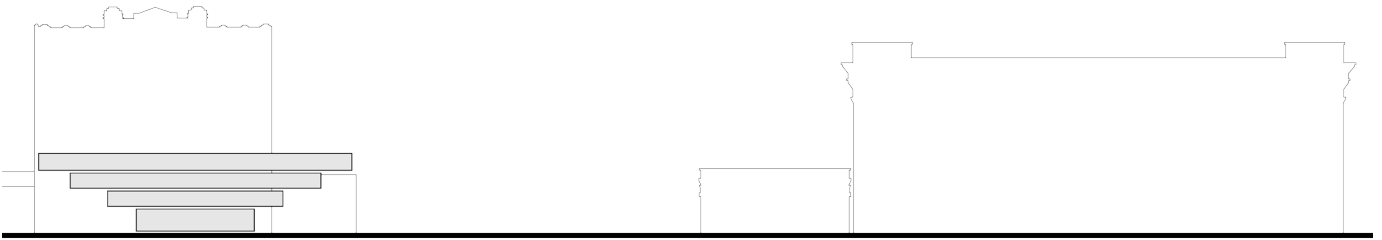
PROJECT
PROCESS
DOCUMENTATION

EAST/WEST SECTION
OPTION 1
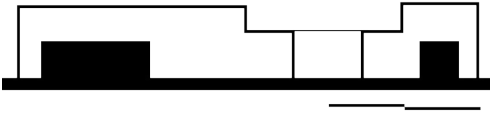
NORTH/SOUTH SECTION
OPTION 1
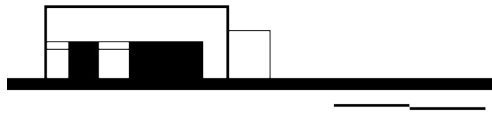
PLAN
OPTION 1
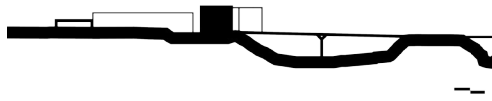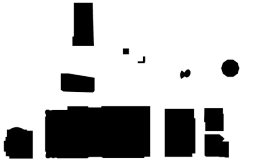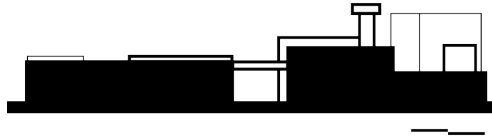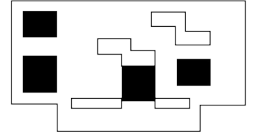
EAST/WEST SECTION
OPTION 2

NORTH/SOUTH SECTION
OPTION 2
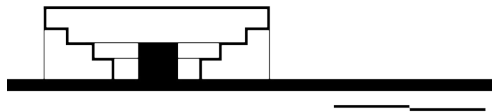
PLAN
OPTION 2
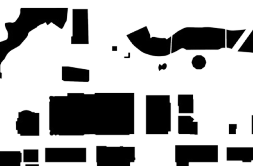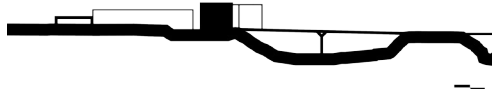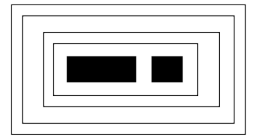
90. SCALE & SITE INVESTIGATION
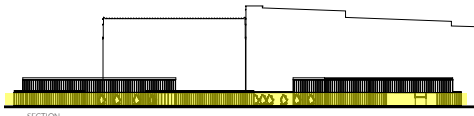
SECTION

SITE SECTION

SITE SECTION

SITE SCALE

SECTION

SITE SECTION

SITE SCALE

SECTION

SITE SECTION

SITE SCALE

ARCHITECTURAL IMPLICATION
INTERFACE BETWEEN DIGITAL & PHYSICAL
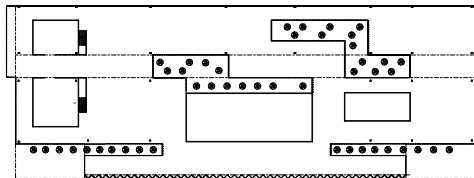
PHYSICAL FIGURE GROUND

DIGITAL INTERFACE ISOLATED
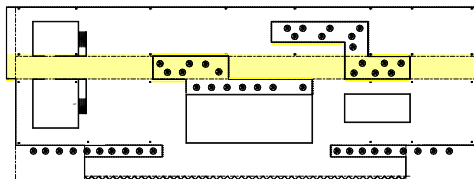
AUGMENTED OVERLAY

ARCHITECTURAL IMPLICATION
INTERFACE BETWEEN DIGITAL & PHYSICAL
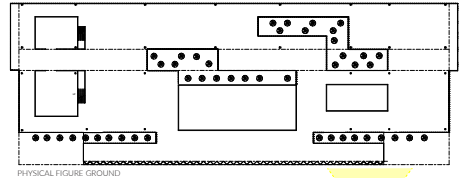
PHYSICAL FIGURE GROUND
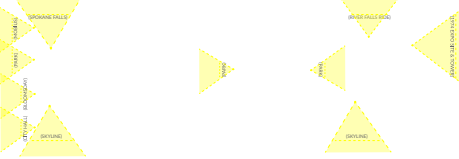
DIGITAL INTERFACE ISOLATED
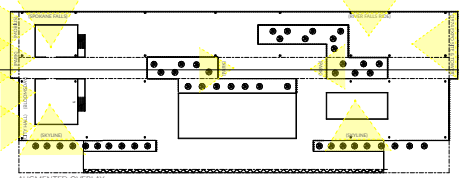
AUGMENTED OVERLAY

ARCHITECTURAL IMPLICATION
INTERFACE BETWEEN DIGITAL & PHYSICAL
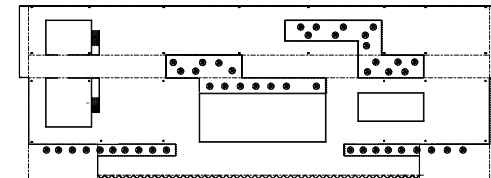
PHYSICAL FIGURE GROUND
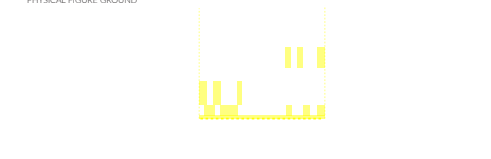
DIGITAL INTERFACE ISOLATED

AUGMENTED OVERLAY

91. SCALE & INTERFACE INVESTIGATION

PROJECT
PROCESS
DOCUMENTATION

RADIAL**PROGRAM**

RADIAL**PROGRAM NESTED**

92. SYNTHESIS & ITERATION

This thesis seeks to discover news ways to connect people, information and place. The resulting project process consisted of three primary phases.

First, a program investigation allowed for the organization of spaces along a spectrum of activity rather than specific programmatic elements.
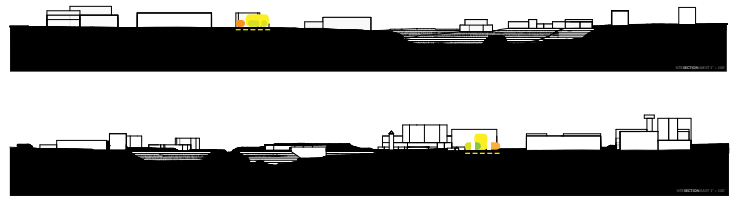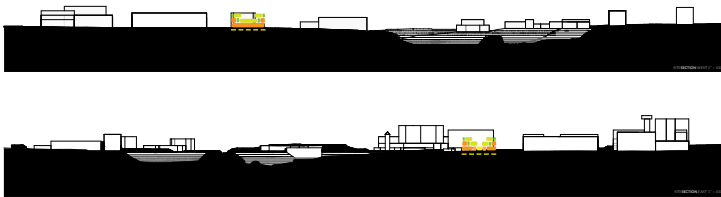
RADIAL**PROGRAM LIFTED**

RADIAL**PROGRAM SUBTRACTION**

Second, as connection to place was paramount, the program was investigated within the context and scale of the city.

Finally, the digital media investigation was laid over the drawings, bringing together the programmatic elements and the connection to the city.
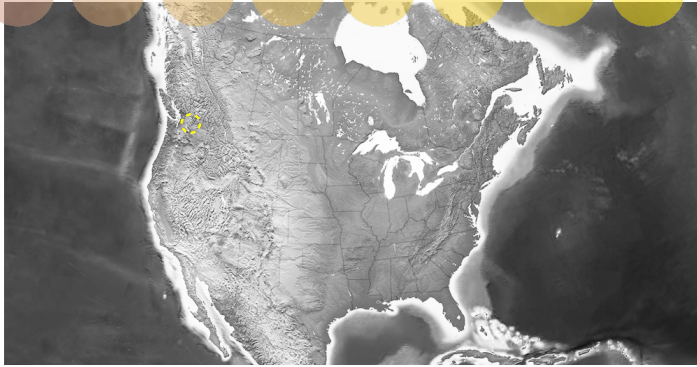
93.

Space of Places (Base Image: USGS)

94.

Space of Flows (Base Image: USGS)

Although libraries began as a way to store writing, libraries have connected information, people, and place throughout history. Have digital technologies significantly affected these connections? Technology has always influenced the way we connect to information, people and place. Harold Innis noted how writing in stone created an emphasis on tradition, long lines of ancestry, and divine flows of time for ancient Egyptian culture. Writing on paper, on the other hand, created an emphasis on space, seen in societies where secular authorities organized territory around trade and armies. Alfred Chandler described how the railway and telegraph allowed for the transition of the United States into a single market (Stalder). These observations beg the question: what is significant about the recent changes to the way we connect to information, people, and place? Manuel Castells, author of *The Rise of the Network Society*, argues that at some point in the mid 1980's, a new form of spatial connection emerged. Castells defines space as the social

medium through which people share time. For the majority of human history people have shared time by occupying the same physical location. Castells describes this type of space as the **space of places**. Technology, consisting of the internet, financial markets, or even telephones, allow people to share time while occupying different physical locations. Castells describes this type of space as the **space of flows**. At some point in the mid 1980's, the space of flows began to rival the space of places. At best, the space of flows allows people to connect to information, people, and places otherwise inaccessible. At worst, the space of flows fragments the types of connections that have held communities and places together for the majority of human history. These two opposing types of space reveal the conflict and opportunity for the architecture that facilitates connection of information, people and place: the library.

PROBLEM STATEMENT/QUESTION

HOW CAN **ARCHITECTURE** CREATE CONTEXT FOR INFORMATION PRESENTED IN **PUBLIC LIBRARIES** THROUGH BOTH PHYSICAL AND DIGITAL MEDIA?

PROJECT GOALS

1   Reveal the impacts of different types of connections by sharing physical space along a spectrum of spaces that connect people, information and places in a variety of ways (global networks such as the internet, local networks such as sight lines).

2   Create flexible spaces that can accommodate a variety of ways to connect people to information and each other.

3   Within the flexible spaces, maintain a connection between people, information, and the city.

CURRENT
ITERATION
DOCUMENTATION

95. PHYSICAL EXHIBIT

EMERGING
PUBLIC

The Public Library's Role in Community

Nick Braaksma

SITE MAP

CASE STUDY INVESTIGATION

How can architecture create context and facilitate understanding of information presented in public libraries through both physical and digital media?

THE THREE ISLANDS

GREETING TO THE SUN

ELSEWHERE

NATO WALL

CROWN FOUNTAIN
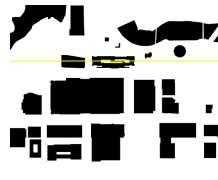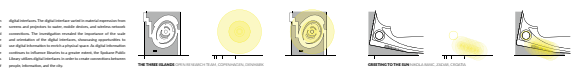
1.1 SPECTRUM OF CONNECTION CONTEXT MAP
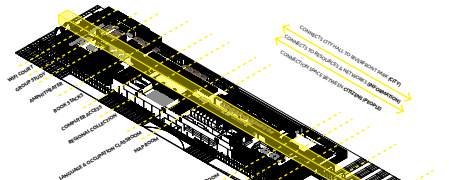
1.2 SPECTRUM OF CONNECTION ISOMETRIC
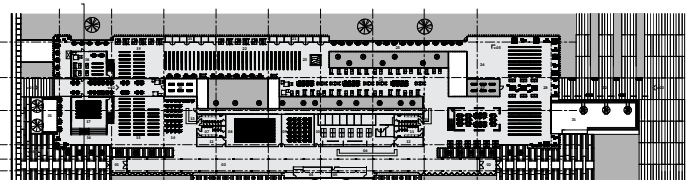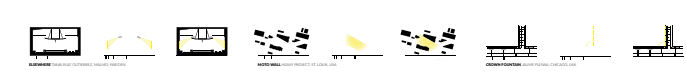
FLOOR PLAN

v.01

v.02
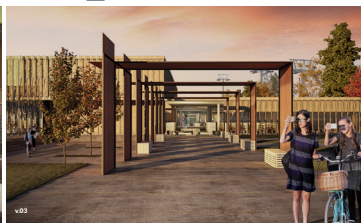
v.03
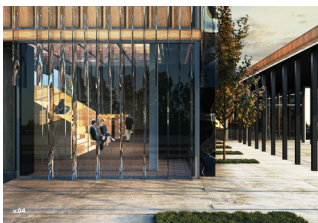
v.04

2.1 A LENS TO VIEW THE CITY MAP
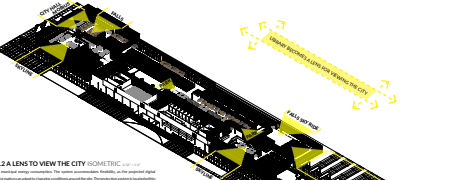
2.2 A LENS TO VIEW THE CITY ISOMETRIC
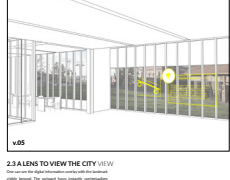
2.3 A LENS TO VIEW THE CITY VIEW

3.1 PUBLIC INTERFACE VIEW
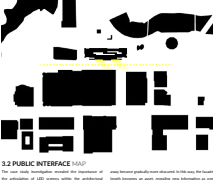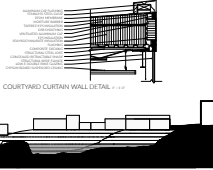
3.2 PUBLIC INTERFACE MAP

v.05

v.06
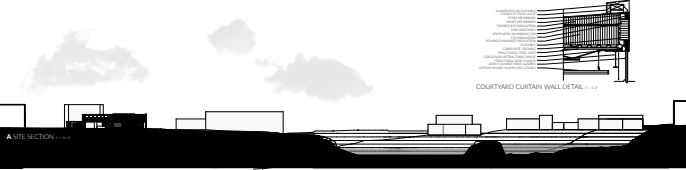
COURTYARD CURTAIN WALL DETAIL

B SECTION

A SITE SECTION

96. EXHIBITION BOARDS

CURRENT
ITERATION
DOCUMENTATION

SPOKANE RIVER

CANADA ISLAND

IMAX THEATER,
PREVIOUS U.S. PAVILION

RIVERFRONT PARK

SPOKANE RIVER

WASHINGTON WATER POWER

SPOKANE FALLS SKY RIDE

HUNTINGTON PARK

CITY HALL

INB PERFORMING ARTS CENTER

RIVER PARK SQUARE

A

DOWNTOWN CORE

| | Courtyard Void |
| | Interior Mass |

97. SITE PLAN

FLOOR PLAN 3/64" = 1'-0"
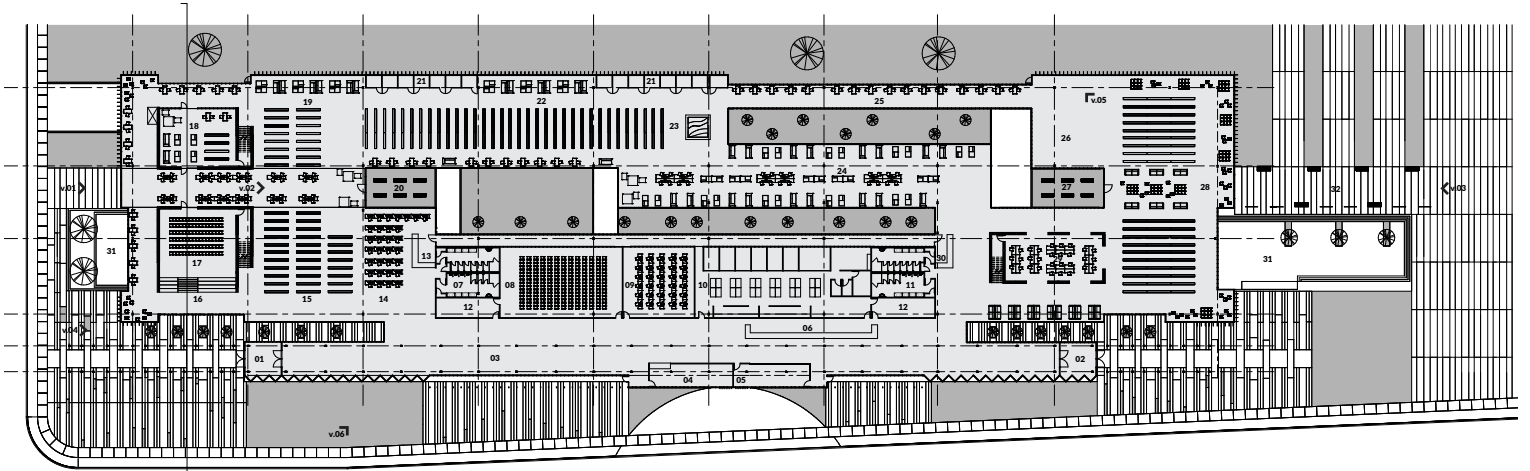
01 WEST ENTRY	**05** RESOURCE DROP-OFF/LOADING/STORAGE	**09** LANGUAGE & OCCUPATION CLASSROOM	**13** ADULT REFERENCE DESK	**17** THEATER/MEETING ROOM	**21** PRIVATE STUDY	**25** MAGAZINES	**29** CHILDREN ACTIVITY
02 EAST ENTRY	**06** MAIN REFERENCE DESK	**10** ADMINISTRATION	**14** COMPUTER ACCESS	**18** YOUNG ADULT	**22** REGIONAL COLLECTION	**26** CHILDREN STORY	**30** CHILDREN REFERENCE DESK
03 EXHIBITION SPACE	**07** RESTROOM WEST	**11** RESTROOM EAST	**15** NON-FICTION	**19** FICTION	**23** MAP ROOM	**27** COURTYARD EAST	**31** EXTERIOR WIFI COURT
04 CAFE	**08** AUDITORIUM/MEETING ROOM	**12** MECHANICAL	**16** AMPHITHEATER	**20** COURTYARD WEST	**24** READING ROOM	**28** CHILDREN	**32** RIVERFRONT PARK ENTRY COLONNADE

98. FLOOR PLAN
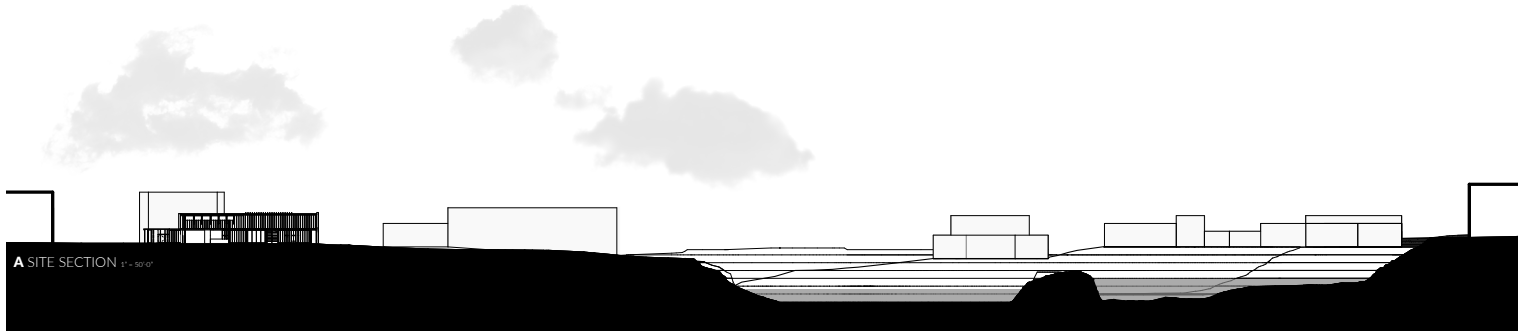
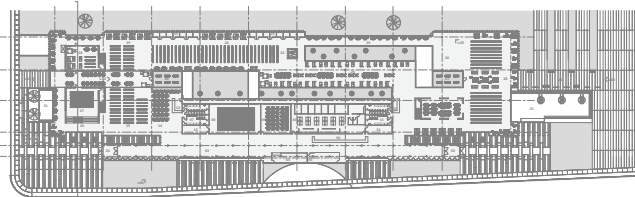**A** SITE SECTION 1" = 50'-0"

99. SITE SECTION

CURRENT
ITERATION
DOCUMENTATION

100. SOUTH VIEW

101. v.01
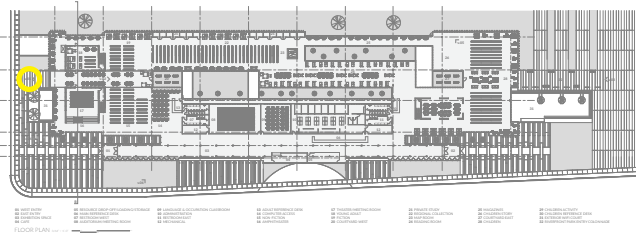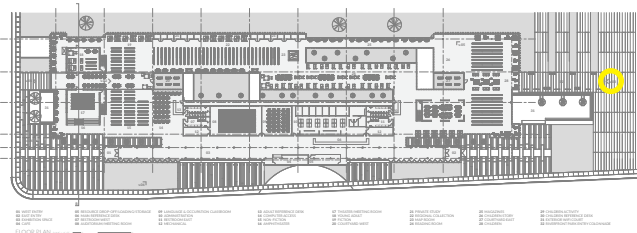
CURRENT
ITERATION
DOCUMENTATION
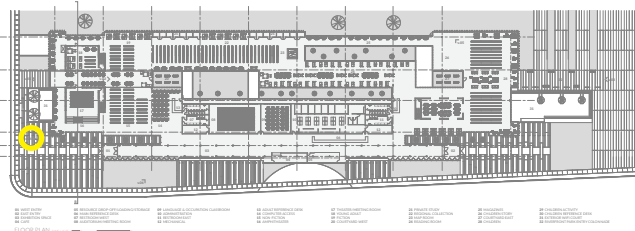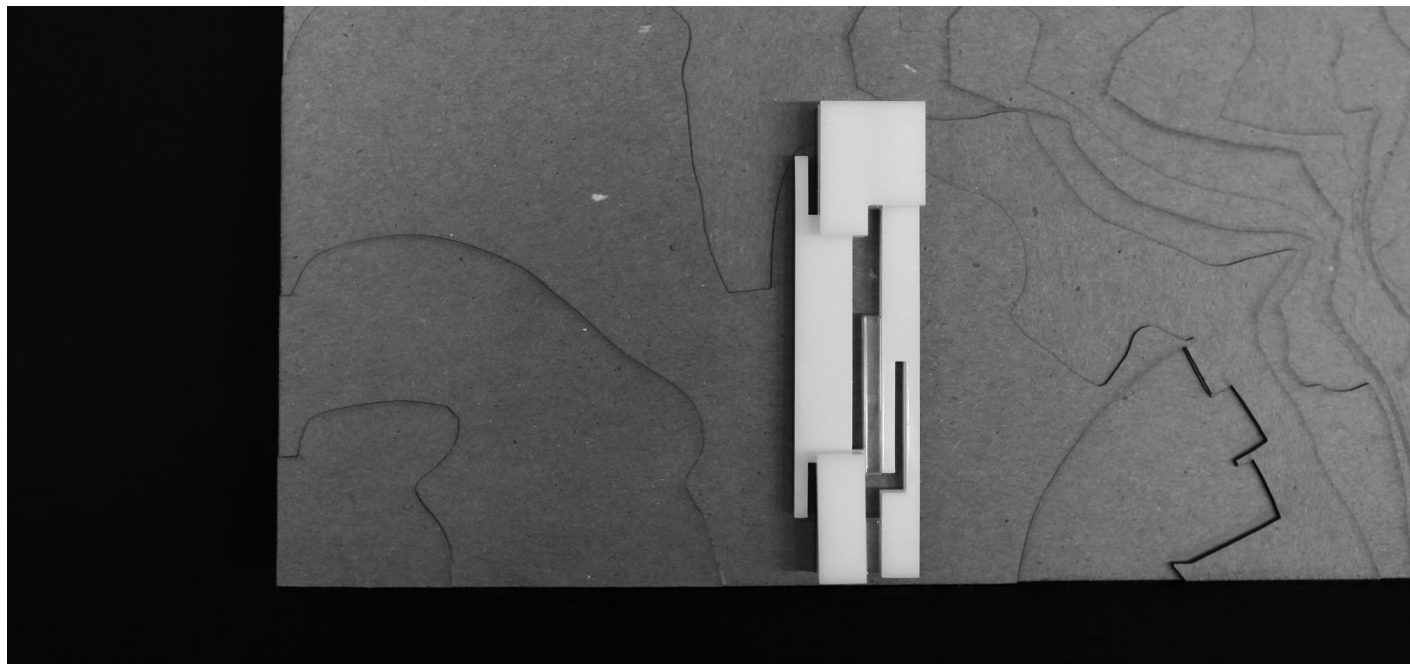

102. v.02
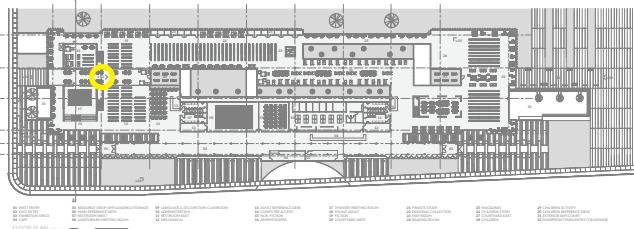
103. v.03

CURRENT
ITERATION
# DOCUMENTATION

104. v.04

105.

106.

SITE
PERFORMANCE
ANALYSIS

107. SITE OVERVIEW

The Spokane Public Library is located on the eastern side of Washington state. The Spokane River flows from the mountains of northern Idaho located to the east of the city. With a metropolitan area population of over 500,000, Spokane is the largest city between Seattle and Minneapolis.

This population size allows for the city to accommodate a dense urban area as well as abundant natural beauty. The Spokane Public Library addresses both of these key Spokane characteristics.
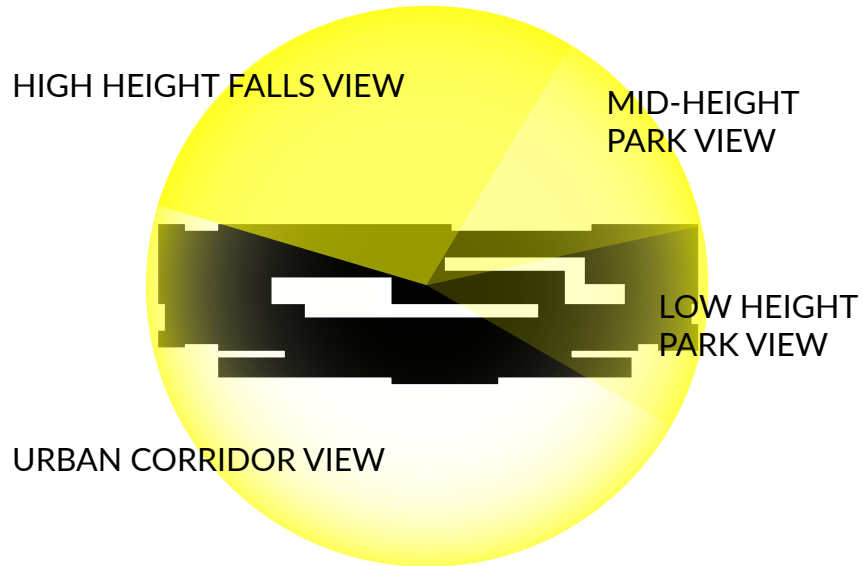
RIVERFRONT PARK

URBAN CORE
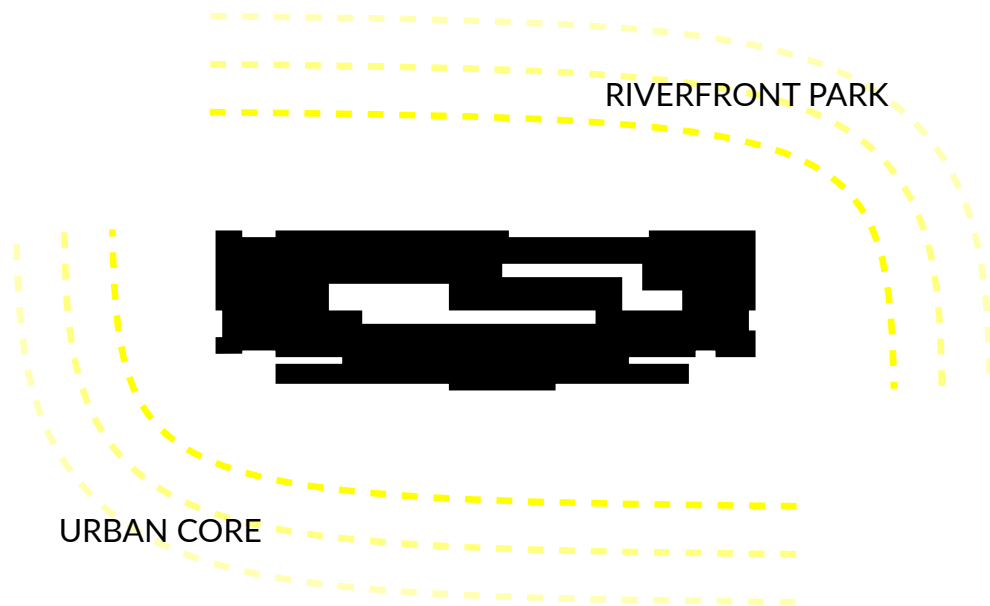
108. ACTIVITY

After Spokane hosted the 1974 World's Expo, the Expo Site was converted to Riverfront Park, a 100 acre area at the center of the downtown core, connecting via islands to the either side of the Spokane River. The Spokane Public Library is located at the transition between the active downtown area and the green space offered by Riverfront Park.

Pedestrian activity is highest along the south, corresponding to the entry corridor. Spokane Falls Sky Ride, to the north, maintains the park's green space, but blocks pedestrian movement with gondola structural columns.

SITE
PERFORMANCE
ANALYSIS

HIGH HEIGHT FALLS VIEW

MID-HEIGHT
PARK VIEW

LOW HEIGHT
PARK VIEW

URBAN CORRIDOR VIEW

109. VIEWS

The Library offers views that capture the beauty of the Spokane area. The Spokane Public Library is oriented to align with lower views along Riverfront Park and higher skyline views toward the downtown area.

MOBIUS SCIENCE CENTER
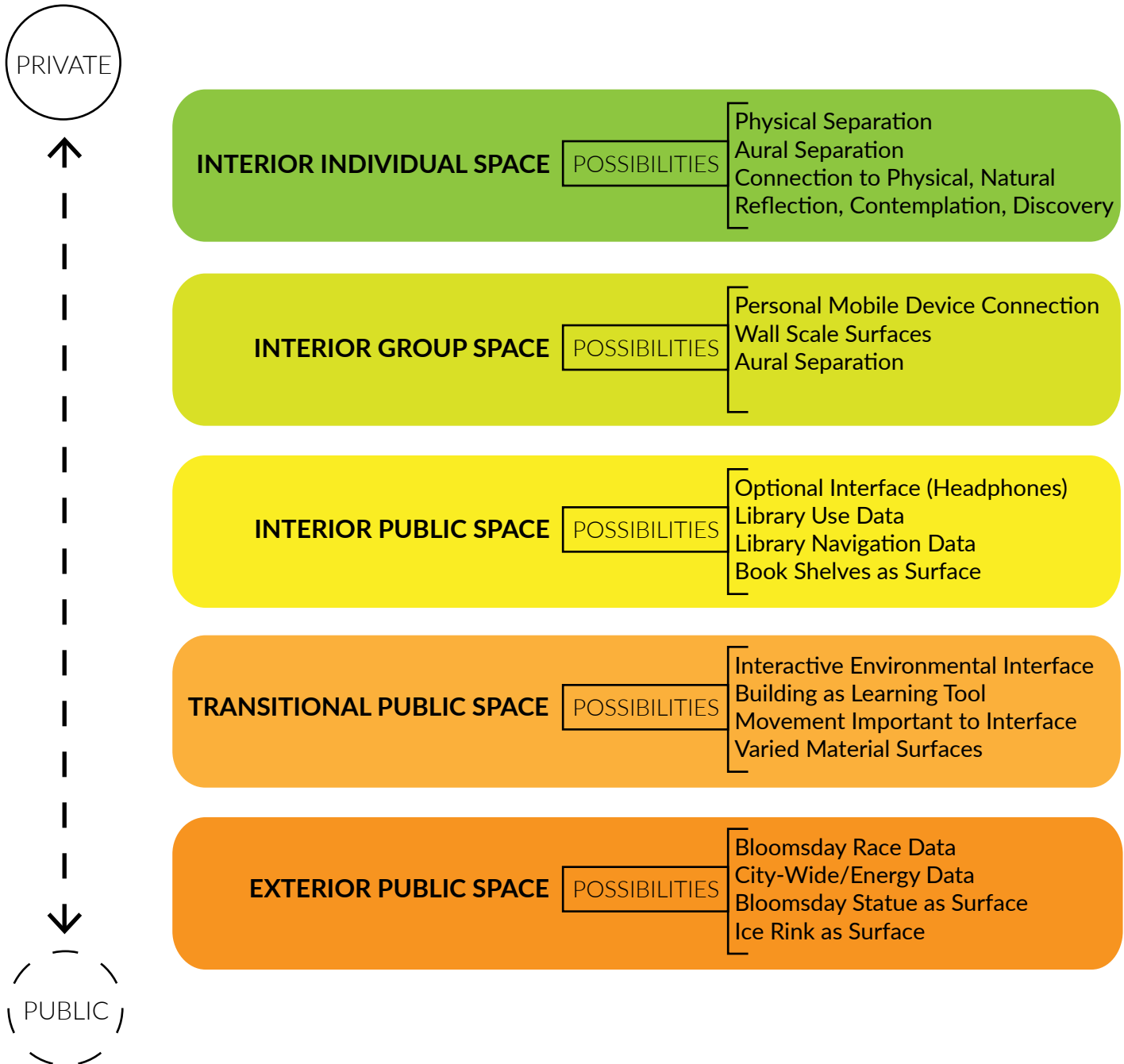
HUNTINGTON PARK

CITY HALL

RIVERFRONT PARK
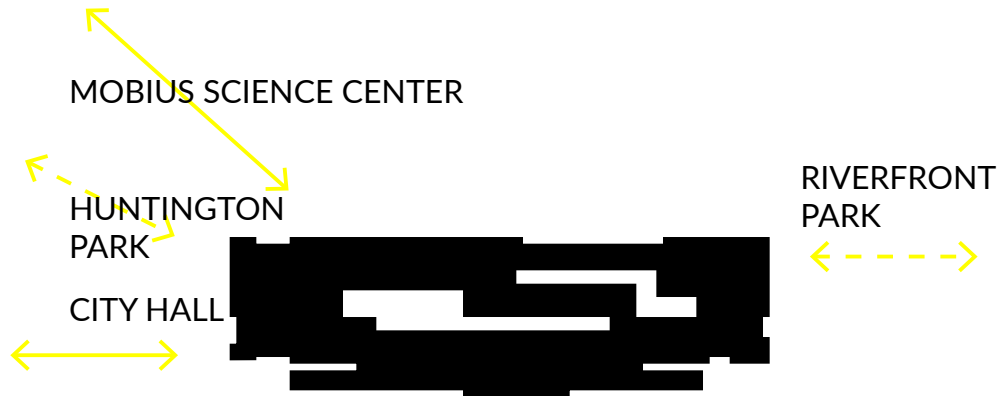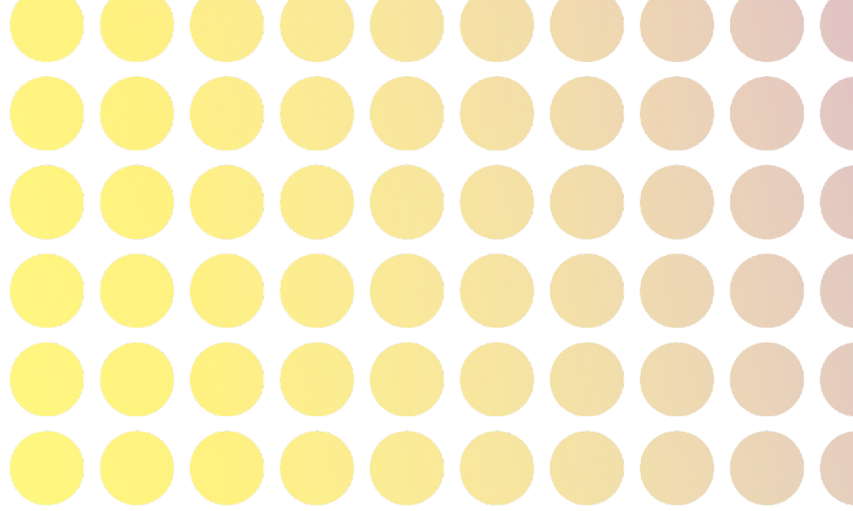
110. CONNECTIONS

The Spokane Public Library is intentionally located at the center of the city, connected to areas invaluable to its citizens. To the west, Spokane City Hall and the Mobius Science Center create strong educational and civic ties. The library building acts as a bridge between R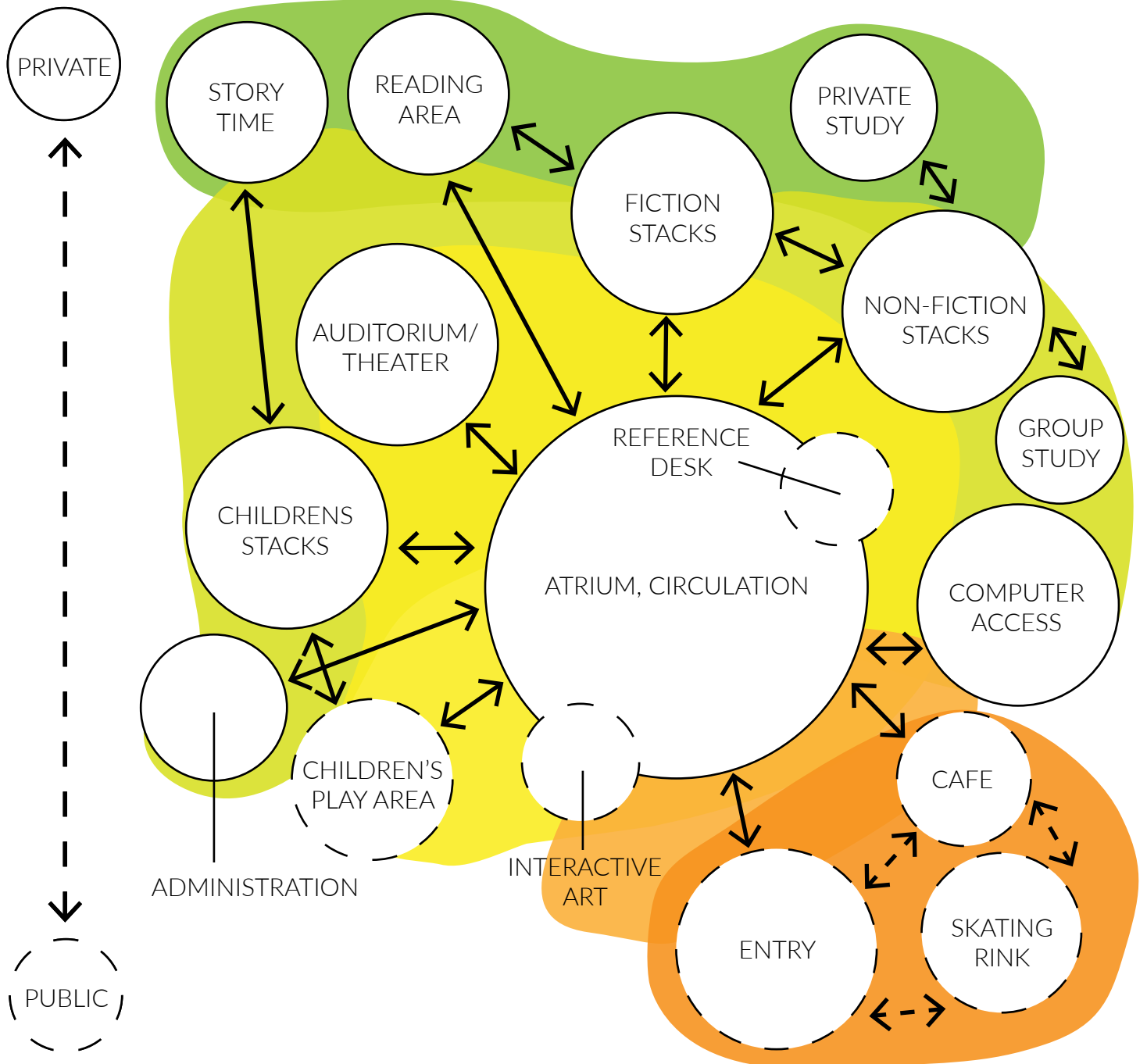iverside Park to Huntington Park, connecting the park area from upper Spokane Falls to Lower Spokane Falls. Typical of an urban area, parking is located to the north in a Spokane City-owned lot, and to the south in a public parking garage facility.
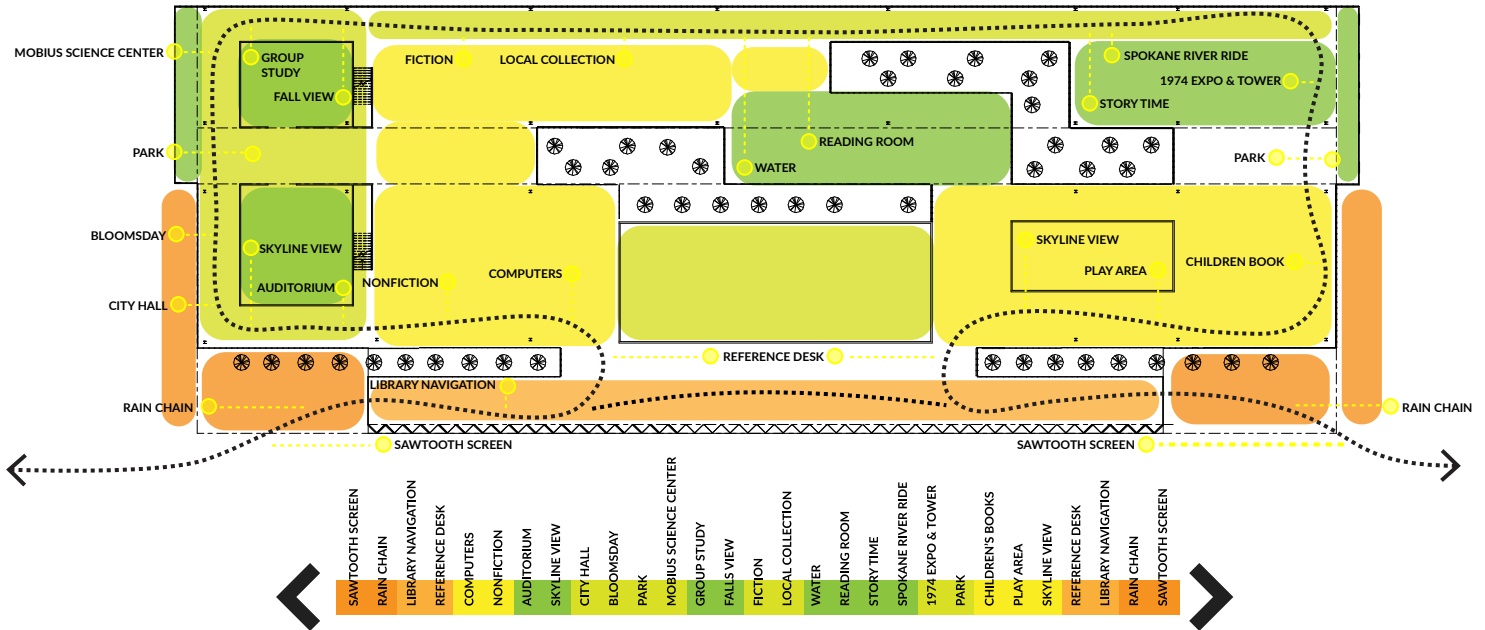
TYPOLOGY
PERFORMANCE
ANALYSIS

MEDIAPROGRAM

PRIVATE

INTERIOR INDIVIDUAL SPACE POSSIBILITIES
- Physical Separation
- Aural Separation
- Connection to Physical, Natural
- Reflection, Contemplation, Discovery

INTERIOR GROUP SPACE POSSIBILITIES
- Personal Mobile Device Connection
- Wall Scale Surfaces
- Aural Separation

INTERIOR PUBLIC SPACE POSSIBILITIES
- Optional Interface (Headphones)
- Library Use Data
- Library Navigation Data
- Book Shelves as Surface

TRANSITIONAL PUBLIC SPACE POSSIBILITIES
- Interactive Environmental Interface
- Building as Learning Tool
- Movement Important to Interface
- Varied Material Surfaces

EXTERIOR PUBLIC SPACE POSSIBILITIES
- Bloomsday Race Data
- City-Wide/Energy Data
- Bloomsday Statue as Surface
- Ice Rink as Surface

PUBLIC

111. TYPOLOGY & PROGRAM INVESTIGATION

PRIVATE

STORY TIME

READING AREA

PRIVATE STUDY

FICTION STACKS

NON-FICTION STACKS

AUDITORIUM/ THEATER

REFERENCE DESK

GROUP STUDY

CHILDRENS STACKS

ATRIUM, CIRCULATION

COMPUTER ACCESS

CHILDREN'S PLAY AREA

INTERACTIVE ART

CAFE

ADMINISTRATION

ENTRY

SKATING RINK

PUBLIC

TYPOLOGY
PERFORMANCE
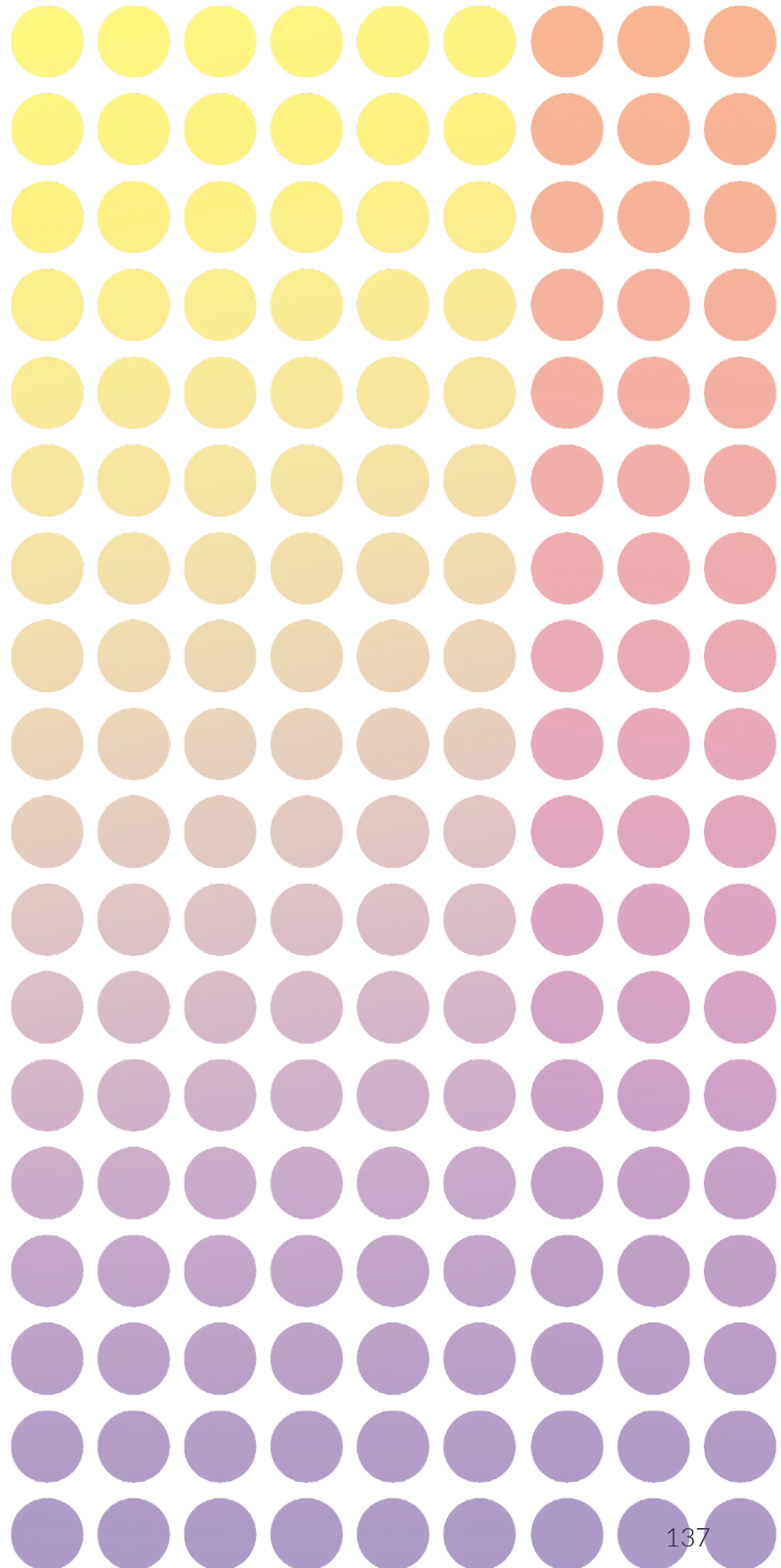# ANALYSIS

**ARCHITECTURAL ORGANIZATION**
EXPERIENCE PATH

Based on the library precedent research, two opposing directions became apparent in the needs of public library. Tim Dirks, the Director of the Fargo Public Library, stressed the importance of the flexibility with rapidly changing societal needs. Simultaneously, the greatest libraries of the past held spaces specifically suited to specific programmatic needs. In order to accommodate both directions, the program was organized along levels of activity.

These levels of activity allow for the broad range of programs that can include specific spaces ranging from reading rooms to large auditoriums. The level of activity allows the library to replace or add programmatic elements at any point along that spectrum. The spaces are not strictly defined by traditional wall barriers, but the spaces flow slowly from one area of activity to another through courtyard subtractions and interior massing.

On the following page, a series of case studies were investigated to better understand the interaction between physical space and digital media. Beyond public library architecture, innovative examples of public space stretch the limits of digital media interaction. Despite the differences, these examples show how the public can be engaged with information in a synthesis of physical space and digital media. The study began to reveal the ways that digital media and physical space can be beneficial to one another. The examples included digital media such as a wifi signals, LED screens, augmented reality, projection, and digitally controlled water droplets. The Greeting to the Sun installation shows how these innovative projects can incorporate multiple media. Soundwaves from the ocean waves crashing on the shore are the stimulus for an expansive floor-mounted LED screen. Scale, orientation, and material became crucially important aspects for the relationship between digital media and the physical space, shown in the interface. The diagrammatic process from the case study investigation, drawing digital information over the physical space, became one of the primary design languages used throughout the project.
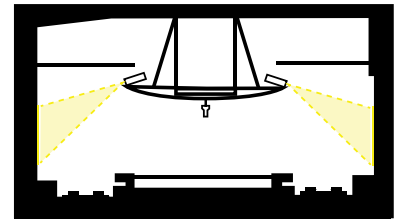
TYPOLOGY
PERFORMANCE
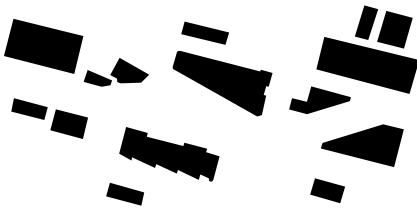# ANALYSIS
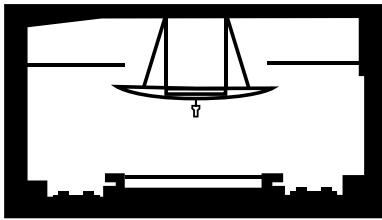
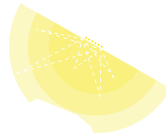PHYSICAL SECTION   DIGITAL INTERFACE ISOLATED   AUGMENTED OVERLAY
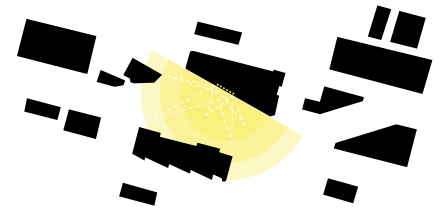
ELSEWHERE TANIA RUIZ GUTIERREZ, MALMO, SWEDEN
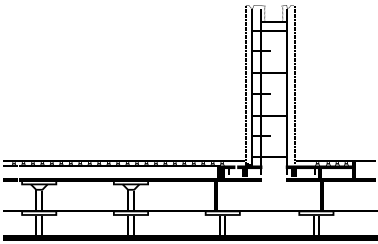

PHYSICAL FIGURE GROUND   DIGITAL INTERFACE ISOLATED   AUGMENTED OVERLAY
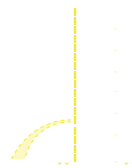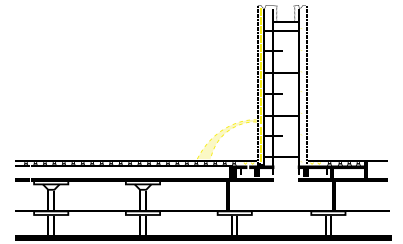
MOTO WALL HEAVY PROJECT, ST. LOUIS, USA
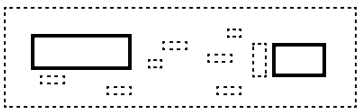

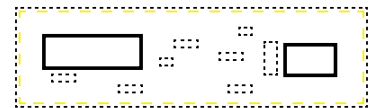PHYSICAL SECTION   DIGITAL INTERFACE ISOLATED   AUGMENTED OVERLAY

CROWN FOUNTAIN JAUME PLENSA, CHICAGO, USA

PHYSICAL FIGURE GROUND   DIGITAL INTERFACE ISOLATED   AUGMENTED OVERLAY

DIGITAL WATER PAVILION, CARLO RATTI, ZARAGOZA, SPAIN

113. DIGITAL/PHYSICAL CASE STUDY INVESTIGATION
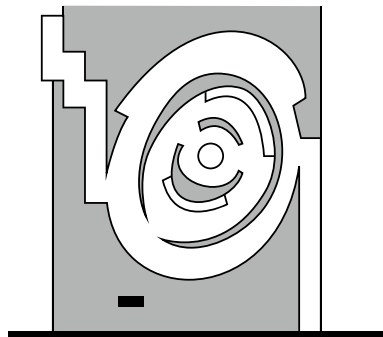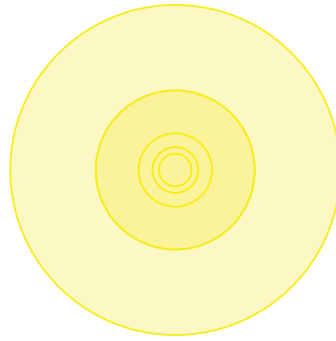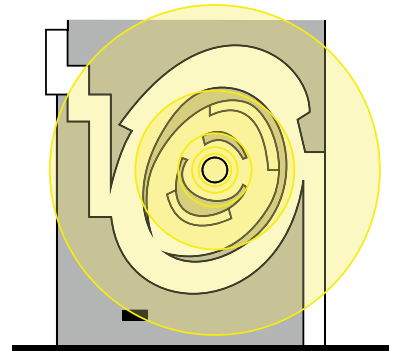
PHYSICAL PLAN DIGITAL INTERFACE ISOLATED AUGMENTED OVERLAY

THE THREE ISLANDS OPEN RESEARCH TEAM, COPENHAGEN, DENMARK

PHYSICAL PLAN DIGITAL INTERFACE ISOLATED AUGMENTED OVERLAY

GREETING TO THE SUN NIKOLA BASIC, ZADAR, CROATIA
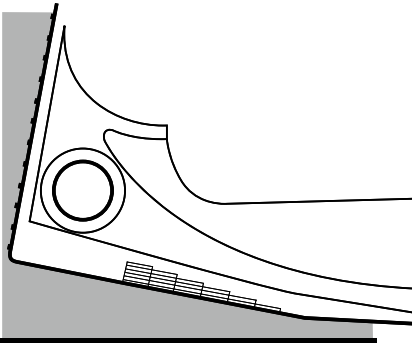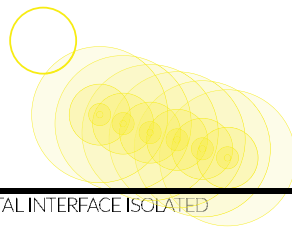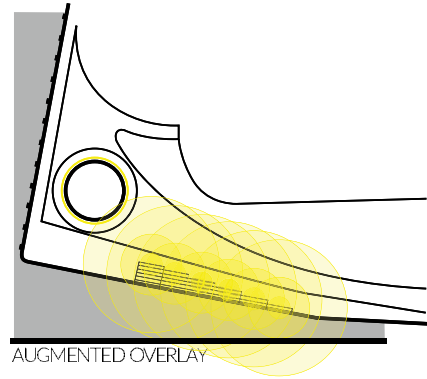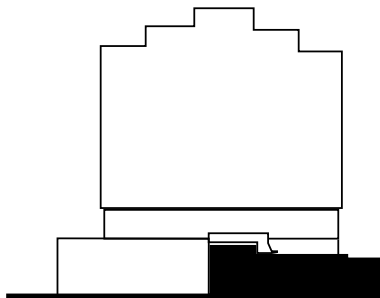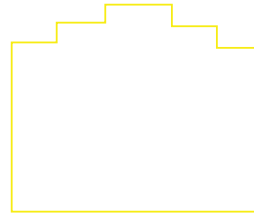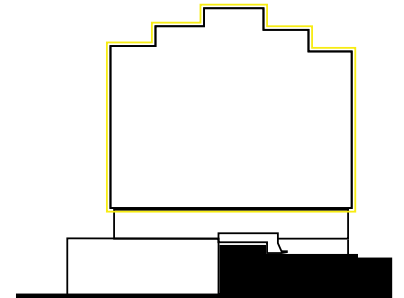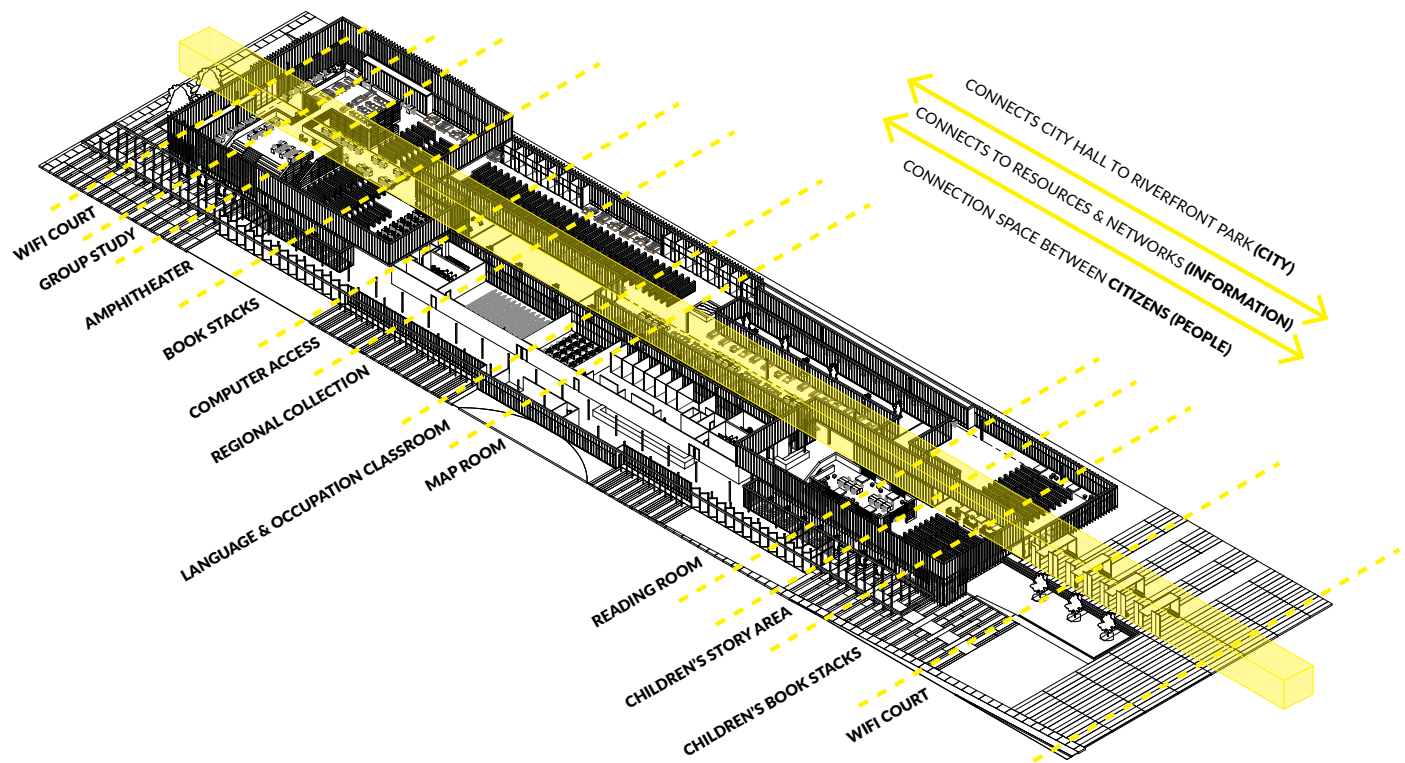

PHYSICAL ELEVATION DIGITAL INTERFACE ISOLATED AUGMENTED OVERLAY

LED ACTION FACADE LANGARITA NAVARRO ARQUITECTOS, MADRID, SPAIN

114. SPECTRUM OF CONNECTION MAP

Labels on diagram: WIFI COURT, GROUP STUDY, AMPHITHEATER, BOOK STACKS, COMPUTER ACCESS, REGIONAL COLLECTION, LANGUAGE & OCCUPATION CLASSROOM, MAP ROOM, READING ROOM, CHILDREN'S STORY AREA, CHILDREN'S BOOK STACKS, WIFI COURT

CONNECTS CITY HALL TO RIVERFRONT PARK **(CITY)**

CONNECTS TO RESOURCES & NETWORKS **(INFORMATION)**

CONNECTION SPACE BETWEEN **CITIZENS (PEOPLE)**

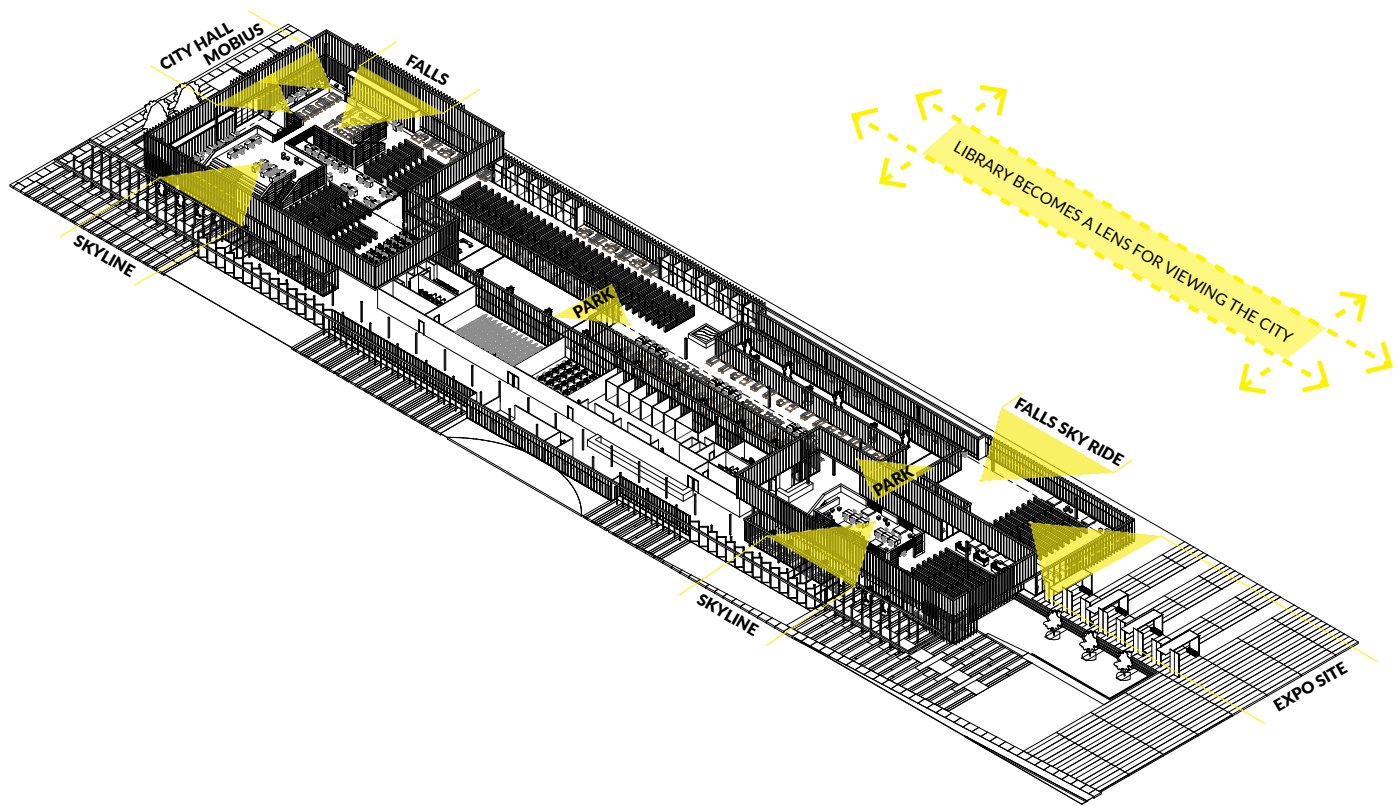## 115. SPECTRUM OF CONNECTION ISOMETRIC

Historically, library buildings have acted as the interface through which the public accessed information. As the way we access information has changed, libraries have changed as well. The proliferation of easy and remote access to information can lead to the assumption that libraries, as portals to information, are obsolete. As both physical and digital forms of connecting to information and the city persist, this thesis focuses on public library architecture as a lens for understanding and viewing how different forms of connection impact the city. At best, digital network connections liberate information and connect communities to those previously isolated. At worst, digital network connections fragment local communities, disrupting the valuable connections reliant on physical interactions. This Library makes the relationships between different types of connections visible, allowing opportunity to understand how connection to global networks may fragment local networks and vice versa. The interior spaces are formed by courtyard voids and interior massing with a datum cutting through the center of the Library. Reinforced with transparency, orientation, light, material and massing, the datum creates a spectrum of connection, a space that allows computer labs, reading rooms, map resources, and courtyards that extend the wifi connection beyond the exterior walls of the building to co-exist along the same physical space with a spectrum of different types of connections. By placing these different activities with different types of connections side by side, the architecture makes possible the consideration of the impact of different ways of connecting people, information, and the city. Continuing in the library's democratic history of providing the public with the resources to make informed decisions, the Library does not claim the superiority of either local place connections or global space connections, but makes their relationship more visible, empowering citizens to build future connections.

PROJECT EMPHASIS
PERFORMANCE
ANALYSIS

116. A LENS TO VIEW THE CITY MAP

CITY HALL
MOBIUS
FALLS
SKYLINE
LIBRARY BECOMES A LENS FOR VIEWING THE CITY
PARK
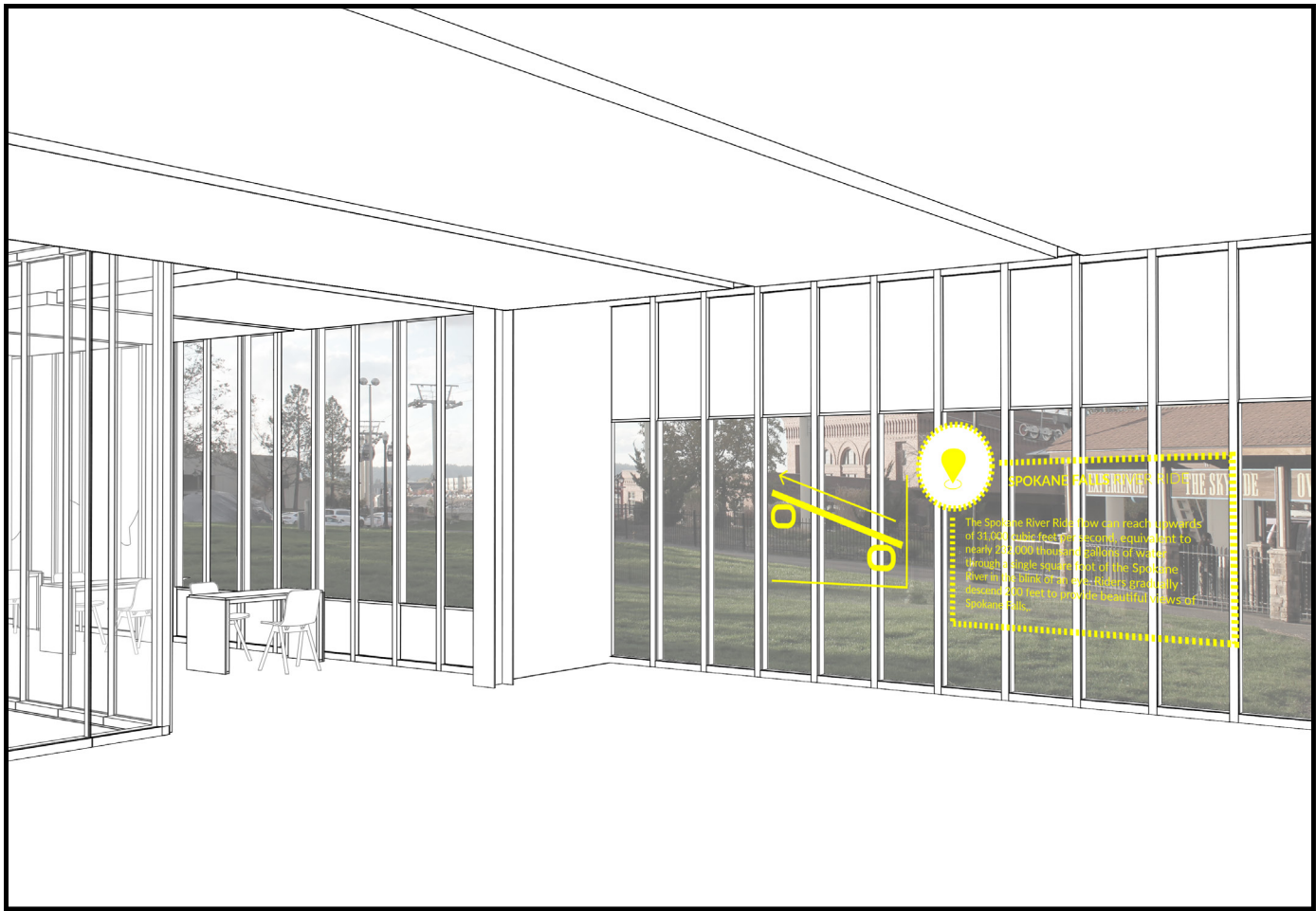FALLS SKY RIDE
PARK
SKYLINE
EXPO SITE

117. A LENS TO VIEW THE CITY ISOMETRIC

In order to make the relationships between different connections visible, the Spokane Public Library leverages digital media to create local connections. The architecture is organized to highlight the landmarks that surround the site, offering views of Spokane City Hall, Mobius Science Center, Washington Water Power, Riverfront Park, Spokane Falls Sky Ride, the previous 1974 World Expo site, and the Spokane skyline. The architecture frames these views with portions of glazed curtain walls. Images are projected directly onto the glazing, displaying over the framed views. In this way, the digital and physical information are mutually beneficial. The digital overlay augments the view with additional information, while the view itself provides appreciation of the information with realistic texture. As a highly visible system, the Library becomes a conduit for the local government to communicate valuable information to the public, ranging from voting information to municipal energy consumption. The system accommodates flexibility, as the projected digital information can adapt to changing conditions around the site. The projection system is located within the suspended ceiling system that also conceals the single duct, variable air volume mechanical system. In the two story volumes, the suspended ceiling is composed of sheets of polycarbonate that provide a textured light from dappled skylights above while also concealing the projectors. The sheets of polycarbonate are hung between the structural trusses, as the dappled light from above is concentrated along primary datum and view corridors. At lower heights within the two story volume, the bookshelf masses house projectors as well as power outlets for charging devices.

PROJECT EMPHASIS
PERFORMANCE
ANALYSIS

SPOKANE FALLS EXPERIENCE RIDE THE SKY RIDE

The Spokane River Ride flow can reach upwards of 31,000 cubic feet per second, equivalent to nearly 200,000 thousand gallons of water through a single square foot of the Spokane River in the blink of an eye. Riders gradually descend 200 feet to provide beautiful views of Spokane Falls.

118. A LENS TO VIEW THE CITY v.05

119. A LENS TO VIEW THE CITY SECTION

One can see the digital information overlay with the landmark visible beyond. The outward focus instantly contextualizes digital information. In this way, the Library communicates contextual information surrounding the architecture as well as providing information within the building walls. The augmented solution does not view digital and physical resources as oppositional, but marries digital and physical resources in a way that recognizes each type of resource's strength.

SECTION 3/32" = 1'-0"
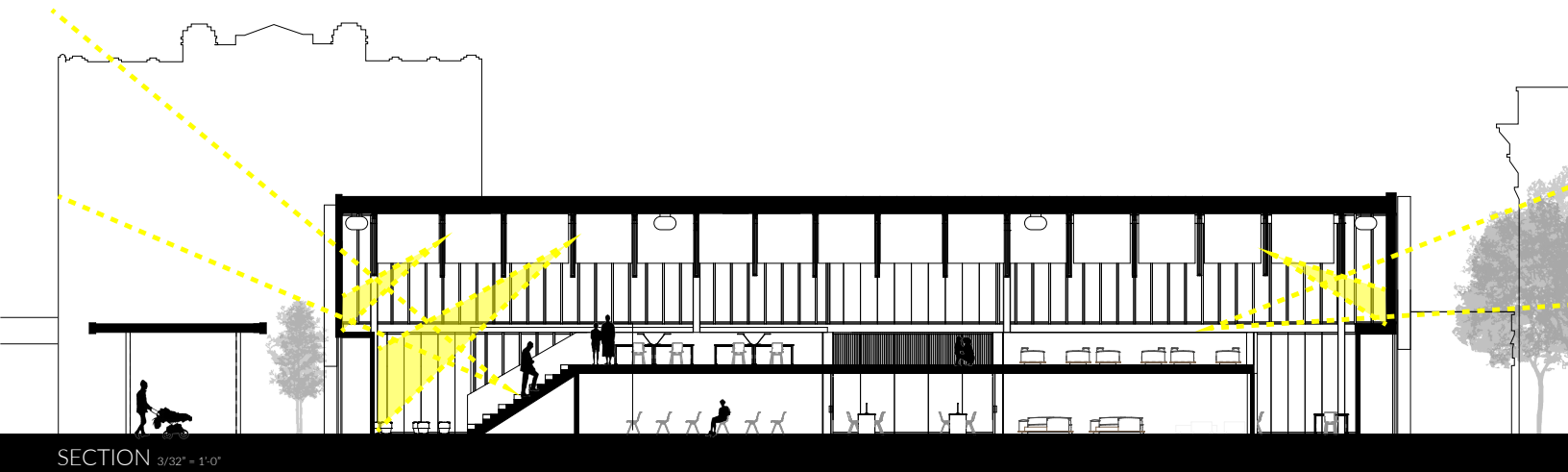
PROJECT EMPHASIS
PERFORMANCE
ANALYSIS

120. PUBLIC INTERFACE MAP

121. PUBLIC INTERFACE v.06

The case study investigation revealed the importance of the articulation of LED screens within the architectural composition. The Spokane Public Library incorporates a series of screens along the south facade, breaking up the length of the facade while complementing the busy activity along the street. Organized in a sawtooth design, the screens change character as one moves along the busy street. The screens closer to the viewer fill the field of vision, while screens further away become gradually more obscured. In this way, the facade

length becomes an asset, revealing new information as one moves along the street. Anticipating the change of technology, the LED screens do not dominate any portion of the facade, so that changes or technology modifications can be accommodated without large voids in the architectural composition. The screens act primarily as signage and way-finding, informing the public while creating a vibrant public identity for the Library.

PREVIOUS STUDIO EXPERIENCE
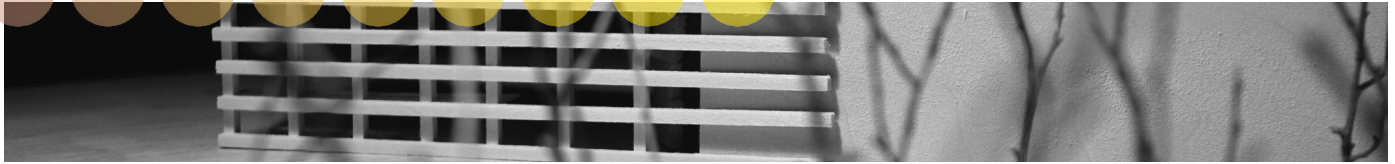
ARCH 271, FALL 2013, CINDY URNESS
This studio developed my understanding of the progression of space. The path to the tea house building showed me the importance of the path of the building occupant, particularly from interior to exterior.


ARCH 272, SPRING 2014, JOAN VORDERBRUGGEN
The focus of this semester was the specificity of space. This specific expression included building a full scale birdhouse, and a small dwelling. These projects expanded my knowledge of how much architecture can be enriched with a specific attention to materials, movement, details, and furniture.

ARCH 371, FALL 2014, RON RAMSAY
This studio developed my interest and understanding of context. The historic influences on all of the projects made me critically think about the role of architecture in contemporary society and how architecture relates to the past.
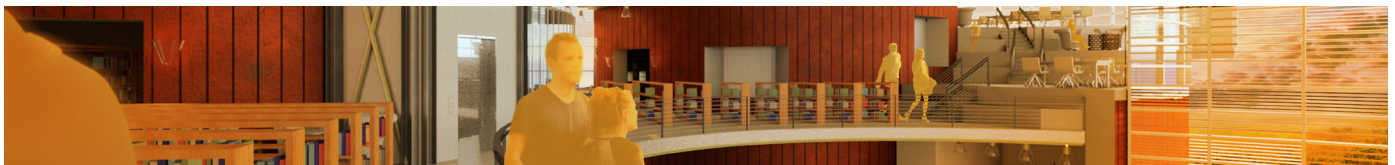
ARCH 372, SPRING 2015, DAVID CRUTCHFIELD
This studio allowed an introduction into the library typology. Apart from later becoming the focus of my thesis, this studio allowed the investigation of how spaces can connect to and engage with one another, specifically with the intersection between plan and section drawings.
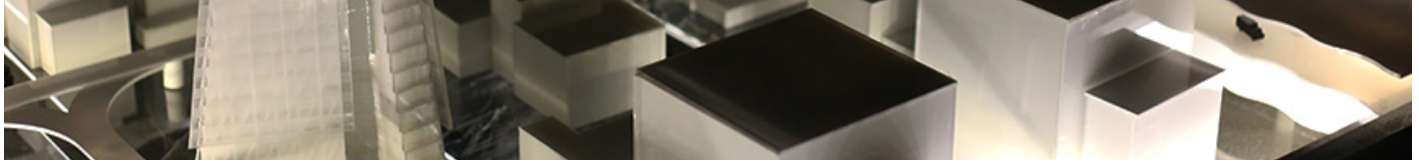
ARCH 471, FALL 2015, BAKR ALY AHMED

As a comprehensive design project, this studio expanded my understanding of the integration of many different systems. The high rise typology required the integration of structural, mechanical, and circulation systems within a unifying design concept.


ARCH 472, SPRING 2016, MALINI SRIVASTAVA

As a design/build project, the studio developed an understanding of detailing, energy modeling, public engagement, and collaboration. Most importantly, due to the constraints of budget and construction, the project taught me how to prioritize and maintain the important design decisions.

ARCH 771, FALL 2016, MALINI SRIVASTAVA

This studio developed my understanding of testing ideas through architecture. The focus on bringing an innovative approach pushed my understanding for what architecture can facilitate or make possible, particularly relating to the barrier between interior and exterior space.
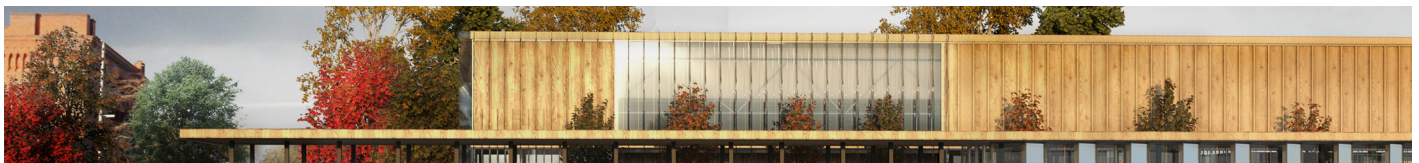
ARCH 772, SPRING 2017, MIKE CHRISTENSON

Thesis provided the framework for testing ideas that had built up over the course of an architecture education. The open ended question revealed not a finished architecture, but further questions regarding the nature of architecture and its relationship to information, people, and place.

PERSONAL
IDENTIFICATION
INFORMATION

Nick Braaksma

njbraaksma@gmail.com

(406) 599 1965

Thank you to all of my teachers,
and especially,

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for fearless questions, and for showing how
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for wit, brilliance, and the wisdom to remind
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for empathy across scales and environments.

Ron Ramsay
for seeing connections among the mundane
and the extraordinary.

Bakr Aly Ahmed
for purposeful provocation.

Thank you to all of my family and friends, especially,

Thank you Grace, my wife,
for patience, for passionately seeking beauty, and for always reminding me what hope is for.

Thank you mom and dad,
for endless support, and for simultaneously showing me the fruit of hard work and rest.

Thank you Matt, my brother,
for speaking truth to beauty, and beauty to truth.

Thank you Erin, my sister,
for always reminding me there is another voice to be heard.
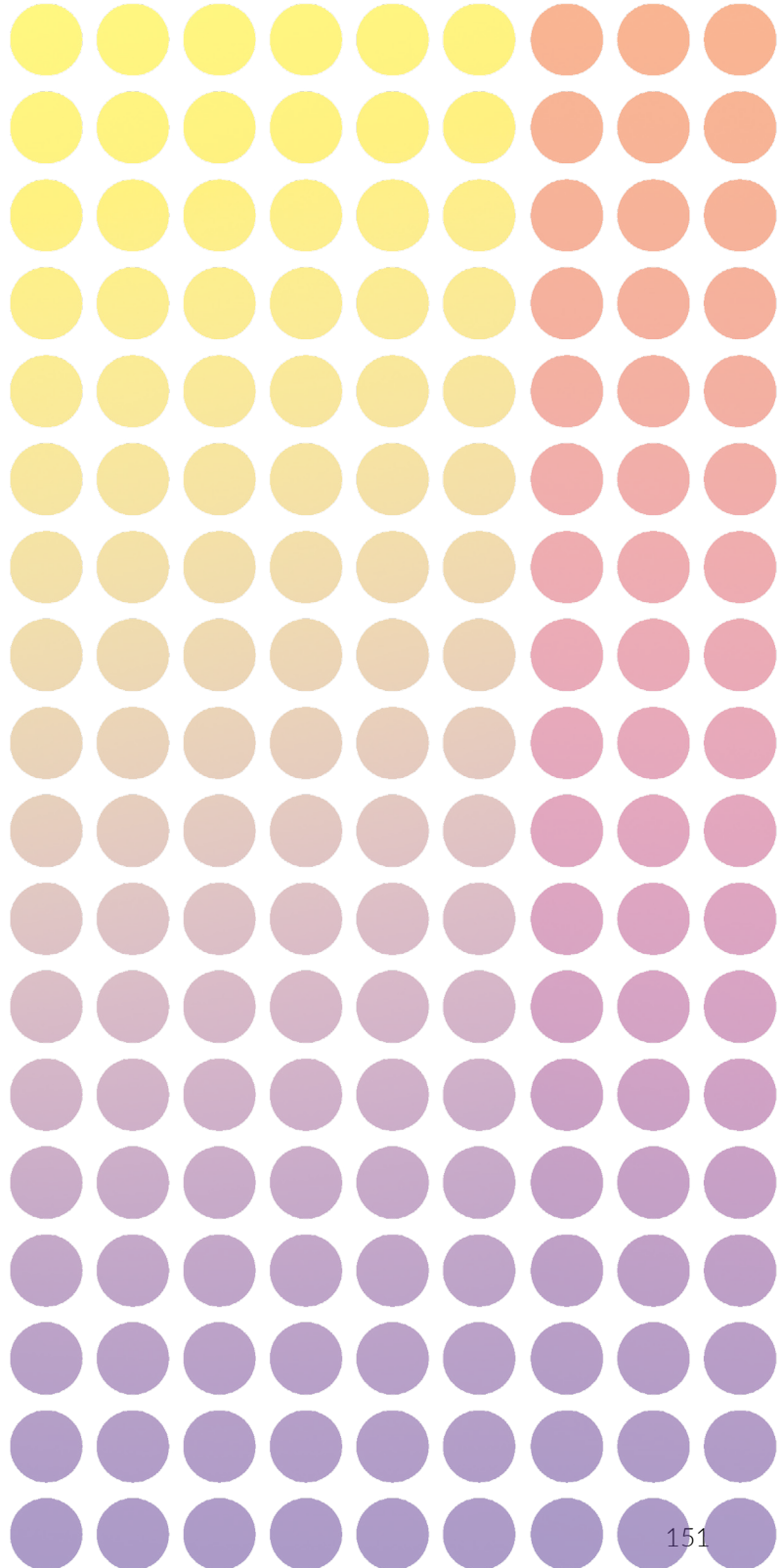
THESIS
RESEARCH
APPENDIX

Bijlsma, T. (2014). The phenomenology of publicness. Wageningen University, The Netherlands.

Bureau, U. S. C. (n.d.). American FactFinder - Community Facts. Retrieved December 13, 2016,
from http://factfinder.census.gov/faces/nav/jsf/pages/community_facts.xhtml?src=bkmk.

Campbell, J. (2013). The library: A world history. Chicago: University of Chicago Press.

Castells, M. (2000). The Rise of the Network Society (2nd ed.). Cambridge: Blackwell Publishers, Inc.,

Cindio, F. D., McCullough, M. (2016). Augmented Urban Spaces: Articulating the Physical and
Electronic City. Routledge.

Clark, M. (2012). Becoming public: How architecture, interior design, and public use define the
public library as a public place. Dalhousie Journal of Interdisciplinary Management,
8(1). https://doi.org/10.5931/djim.v8i1.220.

Clover, D. E. (2015). Adult education for social and environmental change in contemporary public
art galleries and museums in Canada, Scotland and England. International Journal of
Lifelong Education, 34(3), 300–315. https://doi.org/10.1080/02601370.2014.993731.

Ellickson, R. C. (1996). Controlling Chronic Misconduct in City Spaces: Of Panhandlers,
Skid Rows, and Public-Space Zoning. The Yale Law Journal, 105(5), 1165–1248. https://doi.
org/10.2307/797175.

Stalder, F. (2006). Manuel Castells. The Theory of the Network Society. Cambridge, United
Kingdom: Polity.

Hoidn, B. (2016). Demo:Polis. Zurich: Park Books.

Horrigan, J. B. (2015, September 15). Libraries at the Crossroads. Retrieved from http://www.
pewinternet.org/2015/09/15/libraries-at-the-crossroads/.

Leckie, G. J., & Hopkins, J. (2002). The Public Place of Central Libraries: Findings from Toronto and
Vancouver. The Library Quarterly: Information, Community, Policy, 72(3), 326–372.

Low, S., & Smith, N. (2013). The Politics of Public Space. Routledge.

Mensch, J. (2007). Public Space. Continental Philosophy Review, 40(1), 31–47. https://doi.org/10.1007/s11007-006-9038-x.

Mitchell, D. (2003). The Right to the City: Social Justice and the Fight for Public Space. Guilford Press.

Museums, libraries and cultural heritage: Democratising culture, creating knowledge and building bridges. (1997). Presented at the UNESCO, Hamburg: IEU.

Riverfront Park Master Plan - City of Spokane, Washington. (n.d.). Retrieved December 13, 2016, from https://my.spokanecity.org/riverfrontpark/master-plan/.

Varna, G., & Tiesdell, S. (2010). Assessing the Publicness of Public Space:The Star Model of Publicness. Journal of Urban Design, 15(4), 575–598. https://doi.org/10.1080/13574809.2010.502350.

Warpole, K. (2013). Contemporary library architecture: A planning and design guide. New York: Routledge.

Wilkin, J., & Billington, J. (2015). The meaning of the library: a cultural history. (A. Crawford, Ed.). New Jersey: Princeton University Press.