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It is entitled:
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Architecture Supporting the Social Ideals of Democracy

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Abstract

In the design of public buildings for a democratic society, architectural expression and symbolism represent power over people, instead of power of the people. The architecture of libraries, courthouses, government facilities, and other buildings frequently lack a visual connection between the citizens and the building’s true function, which is to serve. In a library, the seclusion of interior functions from the outside environment implies an authoritarian aura, which is contradictory to the values of open access to knowledge in the Twenty-First Century library. The public library is a truly democratic building due to its social role as a knowledge bank, and therefore its architecture must express a free and borderless transfer of information. Because of the library’s need to provide opportunities through literacy for all people, it is necessary to express and incorporate elements of openness and transparency in architecture to support the social values of a democratic society.
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Introduction

The intention of the new branch library for the City of Cincinnati and Hamilton County, Ohio is to provide a library that is a place of social interaction between the surrounding neighborhoods of various demographical backgrounds. The adjoining communities of Fairview/Clifton Heights, Corryville, Mount Auburn, combined with the adjacent University of Cincinnati, contain a wide mixture of ages, education levels, ethnicities, and income levels. This provides an opportunity for the library to extend its services to a very diverse range of people and invest in the intellectual future of the surrounding areas.

The site for the library is in the area known as uptown, approximately two miles north of downtown Cincinnati near the University of Cincinnati West Campus. Calhoun Street borders the site to the north, West McMillan Street to the south, Vine Street to the east, and Scioto Street to the west. This block was formerly home to a fast-food restaurant, a parking garage, a nightclub, and several row houses. Originally intended for a university-funded mixed-use development, the project did not proceed forward, and the site remains an empty, undeveloped sore thumb for the area. This site is at the geographical intersection of several neighborhoods, and its steep topography allows patrons to enter the facility at different levels and allow for a cultural blending of people to occur in three dimensions.

In contemporary society where the computer directly affects people’s daily lives, it is convenient to utilize the Internet for information on a particular subject. However, in reality, this technology is still unavailable to some and therefore these people are not benefiting from this complex web of information. Currently, much information exists strictly in cyberspace with no hard copy format; unlike the book, it is not available to everyone but instead only to those with Internet access. The public library is the building that can provide free admittance to this endless sea of information to those who cannot afford it otherwise.

"Education is a human right with immense power to transform. On its foundation rest the cornerstones of freedom, democracy and sustainable human development."

“Knowledge is power. Information is liberating. Education is the premise of progress, in every society, in every family”

- Kofi Annan, U.N. Secretary General
“There is not such a cradle of democracy upon the earth as the free public library, this republic of letters, where neither rank, office, nor wealth receives the slightest consideration” (Jacobs).

The Seattle Public Library has the above statement inscribed on the wall of a main corridor because it expresses the true ideals of a democratic society. Designing a building that reflects these social values is important for a library because knowledge is power, and the people hold the power in a democratic society. It is crucial that the design welcome people of all backgrounds and allow for an equal opportunity of intellectual success.

"Education is a human right with immense power to transform. On its foundation rest the cornerstones of freedom, democracy and sustainable human development” (Annan).

“Knowledge is power. Information is liberating. Education is the premise of progress, in every society, in every family” (Annan).

These statements by Kofi Annan, the Secretary General of the United Nations illustrate the importance of the library system in any society, and its role in promoting education and literacy.

Varying levels of openness and transparency within the architecture allows for privacy without secrecy, which is very important in establishing the sense of a lack of deception. By carefully incorporating elements of openness and transparency within the architecture of public buildings, the resulting perspective of the public is one of inclusiveness and significance to the respective function, whether it is a library, city hall, or any other type of government building. The remainder of the document discusses the sub-topics that are necessary for establishing and analyzing the design concepts for an architecture that supports the ideals of democracy, with specifically the public library typology as the specific area of focus.
It is important to note that the intent of this research is not to establish a framework for democratic architecture, because that implies the notion that the architecture has to please everyone’s personal tastes. However, it is possible to establish an architectural language that upholds the fundamental ideals and principles of democracy through a careful dissection of its denotative and connotative meanings. The architecture cannot make democracy occur between people, but in a public institution such as a library, it should provide the venue and the opportunity for such interaction to occur.

In history of the public library, I discuss the evolution of the library as an architectural expression of the social value of the book. With the introduction of more types of media such as magazines, newspapers, audio tapes, and recently, digital media, the book is no longer the primary source of information and therefore has a decreasing social value. Because of the conglomerate of all forms of media in a new library, the common terminology of ‘library’ is no longer completely a valid assessment of the building’s function. The word library is Latin for ‘book’, and the modern library facility contains much more than just books (Agnes 826). The more appropriate vocabulary for the modern facility is ‘mediatheque’, fully encompasses the variety of media contained within the facility. Therefore, within this document, the terms ‘library’ and ‘mediatheque’ are interchangeable.

The present day role of the library has shifted because of digital media from a place to store books to a place where people can socially interact as well as access the endless sea of information available on the Internet. Critics of the library have questioned its relevance in a society where seemingly every piece of relevant information is available digitally that there is no longer a need for physical books or a place to store them. The Twenty-First Century role of the public library as a social hub
results from questioning the focus of the library typology from the book to a more socially driven civic function.

The role of symbolism in the architecture of public buildings is important because it makes a statement about wealth, power, and significance. The problem occurs when the architectural symbolism represents the power over the people instead of the power of the people. The architecture of a library needs to reflect the power of obtaining knowledge through monumentality while remaining inviting to all patrons, including the uneducated. The ethical responsibility of public architecture in a democratic society discusses the need for the building to remain truthful about the inner functions and that the attempt is not to deceive the public, but instead establish a connection between the building and the surrounding neighborhood environment.

By analyzing the definition of the term ‘democratic’, two main keywords of openness and transparency became a prominent focus for the design research. The definition effectively broke down into the basic phrase that ‘transparency equals democracy’. By including both denotative and connotative synonyms and arranging a matrix grid for each new phrase, it is possible to dissect visual examples of architectural expressions of democracy. Through photos of both good and bad examples of each phrase, it is possible to demonstrate the process of introducing the values of democracy into public architecture.

The social ramifications of the new library role section discuss the positive and negative results of the new library role within society, for example, as a place for information exchange for people without access to technology. However, some people see it as a community wellness center that provides health care or becomes another retail mall. The intent is that the building does not perform these functions, but instead provides a haven for the open free exchange of knowledge and information.
Detailed precedent analyses of Norman Foster’s renovation to The Reichstag in Berlin, Germany and OMA’s Seattle Public Library are influential examples of how to express democracy through architecture. At The Reichstag for instance, Foster’s acknowledgement of Germany’s dark, tumultuous, but historically significant past symbolizes the country’s willingness to accept its past and yet continue to look forward to its promising future. In this case, it is crucial not to dismiss the past no matter how terrible, but the importance of admission and remembrance and the lessons learned from history.

The Seattle Public Library is perhaps the best example of the new role of the library in the Twenty-First Century because it is so many things to so many people. It provides a place to meet and socialize, attend classes on certain topics including literacy, invites people to come inside and learn, as well as the traditional function of a library as a resource center.

The conclusion of this document discusses the particulars of the design project including the site analysis as well as its programmatic distribution and requirements. The inclusion of elements of openness and transparency into the building design are very important in translating the written analysis of the initial question into architecture. The inclusion of these elements will play an important role in the final building design, one that supports the social values of democracy.
Chapter 1: The History of the Public Library

The library began its role in society as adjunctive spaces to monasteries in which they were very secret, sheltered, and enclosed spaces off limits to the common citizen. This secretive and sheltered environment, along with the fact that all books were hand-written at the time, made the book a socially valuable quantity and thus became a desirable collectible for wealthy private landowners of the previous centuries. Slowly, these private collections became associated with colleges where scholars could gather for private study.

After the invention of the printing press, the cost of books dropped dramatically and thus expanded their social impact as books suddenly became more and more accessible to the public (Edwards and Fisher ix). The mass-production of books helped increase the size of the library building and its collection, but consequently the book became less of an exclusive quantity that was previously for only the wealthiest of society.

The printing press was crucial for rerouting the social value of the book and therefore modified the library form itself. No longer was the library a fortress meant to protect the book from destruction, but rather a location to store knowledge.

“Education certainly was behind the development of the library as an essential aid to higher learning. The book became less an object of treasure and more an object of use” (Edwards and Fisher 4).

The early practice of chaining the book to a masonry wall or keeping the book behind a locked glass cabinet became outdated. The open bookshelf came next, and the building evolved into the circular rotunda with the books around the perimeter and a reading area in the center under a dome meant to resemble the heavens or the human cranium and let in natural light (Edwards and Fisher ix). A prime example of this rotunda form is Thomas
Jefferson’s University of Virginia library (Figure 1.1). The elliptical reading room plan of the Wolfenbuttel Library in Berlin contained the formal composition of the dome and cube that would signify the presence of a library for almost 200 years.

“The dome, usually surrounded by high level windows formed in the circumference of the cylinder as it pierced the cube, allowed even light to filter down upon the reader. Those in the reading room could also ponder upon their material within a volume designed for intellectual reflection” (Edwards and Fisher 3).

The dome and cube approach to library design begins to express the social ideal of material and container where the shape of the container reflects the nature of its contents, or in other words, its form follows its function (Figure 1.2).

“The integration of material and container allows the library to reflect higher ideals – the status of learning, the importance of the written word and the symbolic celebration of free access to society’s knowledge,” (Edwards and Fisher 8).

Prior to the invention of steel and its incorporation into the construction industry, library construction was primarily stone bearing walls. The construction technology of the period simply did not allow large open spans for the roof, so the structural bay spacing of the column became the unit of display for the book (Edwards and Fisher 4). Furthermore, the placement of the books along the perimeter walls during the Carnegie library era came as a result from the weight of the book stacks being too much for the structural material capacities of the day. Not only did the incorporation of steel into building construction provide the ability for open interior spaces without columns, it allowed the removal of books from perimeter storage and spread them throughout the floor plate area (Mattern 4).

The eighteenth century plan has a semi-basement level, which made it easier to deliver books and magazines to the facility, as well as more readily control temperature and humidity levels. Furthermore, by elevating the main entry to the
library, a grand architectural gesture marked the approach to the building and symbolized that knowledge is power (Edwards and Fisher 3). The nineteenth century saw the introduction of specific spaces meant for each division of study.

“The sequential arrangement of books led to subject partitioning which effectively undermined the symbolic value of the library as social signifier whilst, admittedly, improving its usefulness. It was a victory of functionalism over meaning” (Edwards and Fisher 14).

The Modernist library plan of the 1930’s saw the erosion of compartmentalized spaces and introduced a more fluid, open function in the floor plan. Even blurring the division between books on shelves and those in storage to the point of confusion, and the lack of defined spaces eroded the presence of a formal reading room (Edwards and Fisher 3).

“The modern library of the early twentieth century sought not to protect books from readers but to bring patrons and library materials together and to facilitate their interaction” (Mattern 3).

This approach to library design lays the foundation for the design of the present day library facility, which revolves around the social interaction promoted by the expression of spatial openness and transparency. An example of this is the Main Branch of the Public Library of Cincinnati and Hamilton County, where a section of the building plan contains a specific subject or function (Figure 1.3).

![Figure 1.3](image.png)
The Main Branch of the Cincinnati Hamilton County Public Library built in 1955 with consequent future additions
Chapter 2: The Present Day Role of the Library

Over time, other media types such as newspapers and magazines began to challenge the book as a popular media form, and this is true today with the incorporation of electronic and digital media into the knowledge bank of information.

“Just as the printing press changed access to knowledge, information technology (IT) has revolutionized the library. The supremacy of the book is now challenged and the journal is as likely to be electronic as real. Does the library have any justification to survive as building type when the media it holds has undergone such profound transformation?” (Edwards and Fisher x).

This is an important challenge facing the library of the Twenty-First Century because no longer is the library the primary place to research and obtain knowledge. Magazines, newspapers, journals, electronic media forms, and the Internet are all very affordable and viable means to access information with a great level of convenience to a majority of the public. However, at the current standards and economics of society, not everyone has access to the electronic phenomenon that is the Internet, and therefore do not have access to the same information as everyone else. Although it is widespread throughout society, access to the Internet is still a form of a social status, and those people that have it are still part of a privileged group. Granted, the number of members of this group is increasing exponentially, but it still categorizes a distinction between those with and those without access to the Internet. Essentially, the Internet is a modern version of the private book collection, where the people with access to it are limited.

The question then becomes, what is the role of the library in the age of digital media and access to information from remote locations? Edwards and Fisher state,

“The library is not a functional container but a cultural icon. It is the library as a social symbol that matters – as a centre of community interaction and as a place to celebrate learning...the library would be needed even if
we abandoned the book merely because it brings people together in the pursuit of knowledge,“ (x).

Some people claim that there is nothing like touching a real object that digital media cannot express. The materiality of the real object is important because of the physical definition and significance of its presence. Physical existence cannot be faked or presented as an illusion, and therefore is symbolic of the book as the container of knowledge. As Shannon Mattern states, the library itself as a building is important because,

“There must be a place for this ‘material knowledge’ – a place where people can feel the heft of a book, smell the ink of a newly printed magazine, turn gingerly the brittle pages of a worn manuscript, or dig through collections of yellowed historical photographs” (Mattern ix).

While the electronic forms of media increase the efficiency in obtaining the information, there is definitely something pure and real about touching and sensing the original media form that is in danger of being lost due to the digital age. A century from now when a person searches for the historical photographs of a building constructed in the year 2000, what will be the method of discovery for the photos? It is conceivable that there may not even be any physical photos to touch, but instead only digital copies of the photos, therefore eliminating some of the excitement and triumph of the physical discovery. A digital copy of an old image is still significant because of its content, but there is nothing like actually handling an eighty-year-old photograph. A computer cannot recreate that experience.

Current library designs are beginning to reflect the recent changes undergone within society about the way people obtain information. Throughout history, every time the status quo of media changes, the architecture evolves to become congruent with the new social value of media. As history has shown, the media is not replaced with new inventions, but the instead the role evolves.
“Books are not replaced by the changes but take on a different role. They tend not to be the first point of contact, but are used after the reader has scanned electronic databases. Visitors to libraries are now confronted by computer screens, which act as traffic lights directing the flow of inquiries into different directions” (Edwards and Fisher xi).

The library’s ability to evolve with the changing times allows it to remain a relevant typology in a society, which is seemingly extinguishing the importance of the book.

“The decentralization of the medium of knowledge has lead to lighter, flexible, portable societies and transparent, open libraries. It is not the library which has changed society, but society and its technologies which have altered the library” (Edwards and Fisher 12).

Competition confronts the new library of the twenty-first century in the form of retail bookstore chains, museums, and other cultural institutions. The obvious threat of the bookstore chain is that the printed media form has become so inexpensive to reproduce that there is no longer a need to maintain a library for loaning out books, but instead citizens own a copy for themselves. The falseness of this as a true threat exists in that not all books are affordable, such as encyclopedias, journal and magazine subscriptions, and other common reference books. It does not make economic sense for a student to buy all the necessary books to research for a term paper that he will likely read only one time to write the paper. There is also the problem of storage space for a personal book or magazine collection, valuable space within the home that the average citizen cannot allocate to books referenced only a few times (Figure 2.1).

Furthermore, access to the books and therefore knowledge needs to be available to all social demographics, including those below the poverty line who might not be able to afford their own copy of the literary classic Moby Dick, for instance.
In 1979, the American Library Association identified the four main roles of the public in their mission statement and its goals for service (Mattern 5):

1. A nontraditional education agency mediating between the individual and the record
2. A cultural agency fostering creativity, enjoyment of literature and the arts, and appreciation for America’s pluralistic culture
3. An information agency
4. A rehabilitation agency aiding handicapped persons to reach their full potential

These goals remain similar for the present day library facility, but the objectives change. For instance, the way of obtaining information is much different now from when the association established these principles, and the role of the librarian has changed as a result. The library provides Internet access to those people who do not otherwise have it. Furthermore, the librarian’s role has evolved from a bookkeeper to an invaluable human information source available to patrons to help access and sort through the endless web of information on a particular topic (Mattern 36). The library has evolved into a place of free social interaction – a place to see and be seen.

“In some communities, libraries provide the only free public space, the only place where residents do not have pay an entry fee or feel obligated to buy anything – although in today’s libraries, with their cafes and gift shops, they could if they wanted to” (Mattern 38).

This is evident in the new Seattle Public Library design with the main floor ‘living room’ as a grand space open in the middle with an atrium that connects all other floors back to the entry level. The multiple functions of this free and open space include reading, checking-in and out, buying gifts at the shop or refreshments at the café, and provides a landmark place to meet with friends for interpersonal socializing (Figure 2.2).

“The public library is one of our ‘fundamental civic institutions,’ a ‘civic integrator,’ a ‘community nerve center’; libraries are ‘intervenors and activists in the

Figure 2.2
Seattle Public Library Living Room showing the café, gift shop, main entry, and reading areas.
communities they serve,’ and as such, they are ‘directly tied to a community’s quality of life’ (Mattern 92).

One must look at these additional functions not as add-ons to the traditional function, but as essential to the enhancement of the library’s role as a community center. For many smaller communities, the library doubles as the town hall where the community can hold important meetings, making efficient use of the library during its after-hours periods.

The philosophy behind this open interaction and multiple diverse functions is all about ‘casting a wider net’ into the public in hopes of attracting new users. Isaac Franco, the project architect for the Salt Lake City Public Library explains how multiple functions that are seemingly polar opposites can coexist together and actually benefit each other.

“*This is a library that regards comic book shops and newsstands not as competitors or commercial interests likely to tarnish the reputation of the pure, benevolent institution (that never was), but as services that enhance the library experience for its patrons...the commerce will ‘be used by people whether they go to the library or not;’ and ‘it brings them in contact with the cultural institution’ and may even eventually draw them inside amid the books and computers’*” (Mattern 88).

People that might not otherwise go to the library may have steered away in the past because they saw it as an intimidating, uninviting environment. This viewpoint is changing with the relaxation of some of the traditional rules regarding food and conversation within the interior spaces of the library. Architecture critic John Pastier labels this concept as ‘magnetism’ and refers to it as one of the ideals in library design.

“In this case the ideals of retain design are influencing library design: the library as a destination, much like the superstore or theme restaurant, functions primarily to draw visitors through its doors” (Mattern 87).

There is however, a danger in applying this new social role to the library because of the fear that the typology will
overextend and over-diversify itself, creating confusion about the role and purpose of the library. Essentially, this creates a lack of identity through the loss of a clear forward direction in its attempts to be all things to all people – an impossible and insatiable task due to limited financial funds and the variety of human conceptual ideals (Mattern 89). Mattern also notes the Chicago Library’s winter garden as a good example of a library trying to appeal to too many people (Figure 2.3). The original intention of the space was a large open reading room, which the library could rent out to private functions such as high school proms and other conventions. The hard floors of the space were necessary for the room to function as a banquet hall, but are terrible acoustically for an activity such as reading. Furthermore, the space is booked so far in advance and so frequently that the furniture is never set up for reading, but instead always contains round dinner tables with no chairs and a continuous set up for the next event. Patrons could not read there even if they wanted to because of the constant activity to support the room’s original secondary function (Mattern 90 – 91).

While the inherent role of the library has changed, the fact remains that it is still a centralized collection of knowledge in various forms including printed media, electronic media, human interaction, and visual observations. It is clear that the library is a social hub for information transfer as determined by the evolution of information gathering techniques and sources. The role of the library in a democratic society is such that it requires the open transfer of information because that is the true reflection of the social occurrence of the present day. Information is available to people at a near constant rate all of the time, and the library should be at the center of this transfer to maintain its importance within society as a seemingly endless bank of knowledge. In the attempt to redefine the role of the library in the Twenty-First Century, the word ‘library’ cannot
fully describe the modern role of such a building. Therefore, the term ‘Mediatheque’ completely encompasses the intentions of this building as a media and social hub of information for exchange. This word is updated terminology used to describe the updated role of the modern library.
Chapter 3: The Role of Symbolism in Public Buildings

Architecture can also be a tool for creating both tangible and intangible statements of wealth, power, and significance. This is especially useful for buildings that demand this type of symbolic gesture such as public government buildings, educational facilities, and buildings of worship. The conflict occurs when architecture of this typology does not represent the power of the people, but instead the power over the people.

Opening their article, *The Architecture of Democracy*, authors Charles Jencks and Maggie Valentine reference a satirist cartoon from the 1930’s by Osbert Lancaster in which he depicts two formally identical monumental buildings. Representing the governments of Hitler and Stalin, each building has a swastika or a hammer and sickle respectively (Figure 3.1). It is interesting to note that the only way to tell the buildings apart is by the flags and symbols, denoting that the architecture is independent of the type of government, (9). Other examples of symbolism visible on governmental buildings include the eagle, which is found on Roman columns, both Nazi and Soviet buildings, and nearly “every democratic government building of the 19th and 20th centuries,” (Jencks and Valentine 16). Despite the diversity of each form of government, the eagle represents both power and patriotism to each culture. Therefore, it is incorrect to state that the eagle and other symbols of power are specific to a single form of government. This is a perfect example of a powerful symbol possessing several different meanings depending on the context of its usage.

Symbols of power and authority have been present in architecture since the beginning. The expression of power is important in a public building because of its reflection of the society it represents. While it is important for the architecture of buildings such as a courthouse, prison, city hall, and other governmental facilities to express their authority, it is not a desirable image for a public library facility. The classical style is
no longer the architectural style that is best representative of the new role of the library not as a secure place to store books and knowledge, but as a place for the open transfer of knowledge and information between all patrons of a society.

There are several ways that architecture can reflect the notion of ‘power over,’ including force, coercion, manipulation, and authority, with each one directly relating to the other. Force is perhaps most notable in prison design with the panopticon building form where all of the cells are centered on the centralized guard tower (Figure 3.2). This allows for the minimum number of guards to watch the maximum number of prisoners. More of a preventative measure, force is essentially a way of bullying through design, and simply maintains what is already in place. The form places the power at the center surrounded by the cells, an idea that is very similar to the medieval monarchist layout with the peasants surrounding the king’s castle.

“Force is a limited form of power since it can prevent action more easily than it can create it” (Dovey 10).

Another way of showing dominance is the use of coercion, where domination or intimidation is the primary method of expressing authority. Coercion deals with the overall scale of the building or the memory of a past use of force signify the possibility to do so in the future, such as with a public monument.

“Spatial domination through exaggerated scale or dominant location can belittle the human subject as it signifies the power necessary to its production” (Dovey 10).

A good example of this is Buckingham Palace in London with its famous guards and seemingly oversized fence and gate that surround the building (Figure 3.3). A third form of power is that of manipulation, operating on the principle of keeping the subject ignorant of their surroundings.
“The organization of time and space to mediate social interaction, particularly the visibility and invisibility of others, becomes crucial to effective practices of coercion. The fragmentation of space and time, the loss of a sense of orientation and history, can be conducive to coercive control” (Dovey 11).

An example of this practice is how casinos deliberately keep their patrons away from any connection to the outside world and the lack of clocks in the facility to psychologically concentrate them on gambling and lose a sense of time of day. Authority is also important for architecturally expressing power because it represents the ability to control, manipulate, or potentially deceive.

“Power is the ability…to define and control circumstances and events so that one can influence things to go in the direction of one’s interests” (Dovey 9).

The placement of a plaza in front of a public building is important to establish the significance of that building, such as with City Hall Plaza in Boston, Massachusetts (Figure 3.4 – 3.5). Some of the problems with this plaza include the vastness of the space combined with the lack of vegetation, effectively making a space that is almost unfit for human inhabitation. The grand scale of the space radiates the perception of governmental power, which is not a desirable image for the city of Boston (Project for Public Spaces).

However, the symbolism in public buildings can be very important to reinforce the strength and power of a governmental system, and monumentality is achievable without oppression. For instance, strong buildings allow people to appeal to their own inner strengths.

“We have carried heavy loads and have known pressure and counter pressure. We have collapsed on the ground when we no longer had the energy to oppose the downward pull of our own body’s weight. That is why we are able to appreciate the proud happiness of a column and to understand the tendency of all matter to
spread shapelessly on the ground...powerful columns produce energetic innervations in us, and the wideness or narrowness of spatial proportions controls respiration. We innervate our muscles as though we were those load-bearing columns, and we breathe deeply and fully as though our chest had the width of those halls” (Arnheim 212).

The large open dramatic forms that have become synonymous with public buildings such as airport terminals, convention centers, museums, theaters, and stadiums are an expression of their ability to welcome and protect the public through civic pride. These large spaces are crucial to expressing their function as the collective gathering place for the public of all demographics and cultures. There is an inherent unity when a single monumental roof structure covers an entire building of multiple functions. Norman Foster’s initial winning design scheme for the renovation of the Reichstag included a large single canopy that covered the entire structure signifying the unification of the old and the new within the building.

Symmetry is also very important as a symbolic gesture in public buildings for many reasons. Firstly, symmetry in architecture exhibits a certain order and control over the meaning behind the function because it must conform to a space, not vice versa. Secondly, since human beings are not exactly symmetrical, an equal balance implies a godliness quality to the being. This is why monumental statues and images of gods were often symmetrical, as if they were the perfect creation.

“They resemble architecture in proclaiming by their appearance that they are not susceptible to change, interaction, or interference...quite properly, for example, architecture is often symmetrical, whereas symmetry is rare in fine arts...the stable, simple order of symmetry would imply too limited a view of human experience” (Arnheim 217).

Because of its close association with godliness, symmetry is one of the most effective means of expressing monumentality in architecture; however, its perfection can intimidate (Figure 3.6).
In a democratic environment, the piazza, or the open plaza plays a significant role in the government, because it is the place for public assembly and the voicing of varying opinions. The public involvement in government is obviously very important in establishing a system that is by and for the people. These public plazas were frequently the site for dispensing punishment or ostracism for crimes as a way of demonstrating to the public the consequences of breaking the law (Jencks and Valentine 12). The authors continue to state that, “the architectural foundations of democracy – the power of the people – are to be found in the places where people assemble and speak, and not only in the symbols of authority and concentrated power” (Jencks and Valentine 17). These places represent the power of the people because they can voice their opinions in these places.

“Crowds of people sometimes can enrich and complete the architectural structure, as the water serves the fountain, by conforming to it and thus becoming a part of it. The crowds that fill squares or flow in orderly procession toward or away from the entrance of a public building, look like a subordinate but indispensible part of the architecture” (Arnheim 212).

Public space that lacks the presence of people comes across as a space that is obviously unfit for human habitation, and therefore a space of authority. People within a public plaza are crucial for establishing the space as monumental without perceiving the space as harsh and oppressive.

Perhaps one of the most important ways of empowering people is through their own imagination. As Dovey states,

“Imagination is the key to power...it determines the direction of desires.”

This statement is significant because imagination is an indirect human quality that society cannot imprison, but can psychologically regulate through dull uninspiring spaces such as basic prison cells (13). Architectural spaces have the ability to
promote and stimulate the imagination process and the opportunity for creativity to occur. Just as the first library architects placed the dome over the library reading room of the rotunda form to symbolize the creativity of the human cranium, modern library space design needs to react and interact the same way with the patron. The ability to think and reason is a form of knowledge, and knowledge is power. Libraries empower its patrons to obtain knowledge, which is linkable to freedom and liberation.

“In everyday life we tend to notice power over while power to is taken-for-granted. This creates the illusion that power over is somehow primary – an illusion which suggests an opposition between power and emancipation. Yet emancipation is a form of empowerment” (Dovey 9).

It is easy to take personal freedoms for granted, and many times the value of this liberation is not recognizable until portions of or all of becomes impaired, such as when a person suffers from vision or hearing loss. Similarly, the ability to obtain knowledge freely through the public library supports the ideals of democracy, but the library design and function must go beyond simply existing as a building and begin to reach out and empower people to utilize its services.
Chapter 4: What is the Responsibility of Public Architecture?

The ethical responsibility of the architecture of public buildings in a democratic society is crucial because it needs to uphold the principles of democracy and reflect them back to the citizens through the building. Edward de Zurko discusses in his book Origins of Functionalist Theory that architecture needs to relate to some sort of ethical ideals. He states,

“A building should be true, not dishonest…A building should be a true expression of its purpose and of its age. Materials and structural systems should be used with integrity and honestly expressed…practicality is virtue…useless forms of ornament are rejected…ornament appears to be a form of conspicuous consumption…” (Holgate 178).

The truthfulness of a building that de Zurko talks about is ultimately a building that is true to itself and maintains a self-identity. The building never disguises itself as something that it is not functionally, and is without deceit in its construction. The materiality of the building does not attempt to fool the viewer into believing a false condition, such as a three-dimensional rough texture on a shiny smooth surface or faux painting wood to resemble marble. Dishonesty in architecture also occurs when materials such as veneers do not express their thinness, but instead attempt to fool the viewer visually into believing that it is the real solid material.

“Part of our appreciating the materiality of an object has to do with our appreciation of the natural origin of its substance and the manufacturing or forming processes that the latter has evidently undergone. New and very synthetic materials are confusing in this way: neither their origin nor their forming is readily perceivable. This makes materiality the component of realness most often implicated when something is judged to be ‘fake’…” (Benedikt 44).

Holgate cites a form of architectural dishonesty when a church created a ‘film set’ façade to conceal a small modest hall and
thus, the false impression of a much larger facility (181). The buildings at most amusement parks are examples of deception occurring in architecture. What might appear to be a brick or wall of stone may very well be simply painted foam with a rough texture (Figure 4.1). It is also a common practice to exaggerate the scale of these amusement park buildings to heighten the experience of a fantasyland environment.

In a public building of a democratic government of the people, truth and honesty extend to the overall design concept for the building. After World War II, The Federal Republic of Germany adopted the principle stating, 

“He who builds transparently, builds democratically”

(Ascher Barnstone 1).

Being open about the activities of the interior is important because of the potential suspicion of deception if the function was behind closed doors. Since in a democracy the people appoint the government officials, the building ought to let the public look into the spaces of legislation as a symbolic connection to the political process and those that represent them (Figure 4.2). This openness and transparency into the interior is a direct form of public accessibility. In this instance, accessibility refers not only to physical aspects, but also concerns the lack of visual barriers between spaces.
Chapter 5: Expressing Openness and Transparency in Design

The library as a social hub is important in creating an open, inclusive community that values diversity in the form of a wide variety of ages and cultures cohabitating in a neighborhood setting. The architecture of the library does not cause the cultures to mix and coexist, but instead merely provides a venue for such actions to occur (Harris 5). Museums, libraries, and other cultural centers are perfect examples of building typologies that promote interaction and diversity. These places are largely public where anyone can attend and interact with others. It is important in this setting for the architecture to be one of respect and acknowledgement of the various cultures and minimize the hierarchy of space.

With the main goal of the twenty-first century library to be a diverse social hub, the incorporation of openness and transparency into the building design is paramount. In public buildings and specifically the library, transparency is important in maintaining connections between the various areas of the program and creating open welcoming spaces that invite people from the street to come inside and pick up a good book or learn about a specific topic of interest through a guest lecturer. Openness and transparency within the architecture are also metaphors for the free transfer of knowledge that occurs in a library. Any citizen can walk into a public library and access a plethora of information on just about any topic, or check out books to read in the privacy of their residence. With the new role of the library as a social hub for information exchange, the extent of the knowledge has expanded from the printed and electronic media to the spoken word between people. This is because the library has become a place to converse with friends, or complete strangers about almost anything, not to mention that the incorporation of auditoriums into many new libraries
provides free access to some of the best public lecturers of the era.

Through an in-depth analysis of the definition of ‘democratic’, two main keywords of openness and transparency became the primary focus for the design research. Through these two words, the definition effectively broke down to state that ‘transparency equals democracy’. This process stimulated important questions about varying levels of openness depending and the different methods of achieving this result. What did it mean to express openness within architecture? How can a building remain open and yet maintain certain levels of privacy and security where required? Are openness and transparency applicable to the intangible aspects of architecture such as freedom from deceit and secrecy, security, as well as the acoustical transmissions between spaces?

A careful examination of the original words and consequent questions led to an in-depth analysis of their synonyms. By including both denotative and connotative synonyms and arranging a matrix grid for each new phrase, it is possible to dissect visual examples of architectural expressions of democracy. Through both good and bad photographic examples of each phrase, shown in photos, it is possible to demonstrate the process of introducing the values of democracy into public architecture. This matrix (Figure 5.1 foldout image on next page) allows for an easy comprehensive understanding of architectural examples that both support and oppose the ideals of democracy. The images highlighted in the thick black lines are the overall best examples for each vertical category. The images surrounded in red and crossed out are the poor examples and very clearly illustrate elements that hinder the expression of democracy within architecture. The images of reduced opacity are still valid examples of good solutions, but are not as understandable as the other images. The paragraphs that follow provide a more in-depth analysis of each category of the matrix.
TRANSAPRENCY = DEMOCRACY

denotation

no physical barrier  clear barrier  screens and filters  free from deceit and concealment  easily understood  layers  accessible and interactive  relatively unguarded  audio transmission  transparent technology

connotation

invisible fence
There are many ways of achieving openness and transparency through architecture. Some of these methods create the opportunity for social interaction between people, and others attempt to stimulate a dialogue between the user and the building. The most obvious way of achieving openness is by constructing no physical barrier and having large spatial volumes. These spaces can be either interior or exterior in the form of atrium spaces and public plazas respectively, or they can work to blur the boundary between inside and outside spaces by removing the physical barrier between the two spaces (Figure 5.2). This approach does not promote isolation or compartmentalization of specific components that remain unconnected to other areas of the program. The lack of a physical barrier promotes interaction between adjacent spaces and allows audio transmission to occur as another means of connecting spaces.

Another means of establishing openness is using a clear barrier such as glass to separate spaces acoustically and for temperature differences, but not visually. This can also be a separation due to distance, as that is an impassible barrier between spaces. An example of this is in the Seattle Public Library with the center atrium space connecting all interior levels of the building visually, but only a select few floors are physically open to the atrium (Figure 5.3). The others have a glass window for both acoustical and fire separation requirements. The unique properties of glass allow it to provide protection without the loss of visual connection between two sides. An example of this is the underwater path through the shark tanks at an aquarium, which allow an exclusive experience while maintaining public safety.

Screens and filters provide an interesting way of varying the transparency to provide a level of privacy, while remaining relatively open to an adjacent space. These screens can exist in the form of patterned glass, which distorts the vision qualities of
the transparency. Metal meshes provide a durable flexible barrier that allows for additional protection, such as for a safety guard. The screen is also a valid technique for controlling the amount of private administration functions, with some allowing nearly complete transparency but only at specific angles, therefore providing privacy (Figure 5.4). The screen is not a filter that strains out a certain profile as a social status symbol such as the country club or fraternity approach to the issue.

Openness and transparency are also present when a design is free from deceit and concealment in terms of references to interior function on the outside, or from elsewhere within the building. An example of this is Foster’s Reichstag again, where he uses glass to dissolve the barrier that commonly exists between the public and its lawmakers. The lighted dome on top of the building provides a recognizable visual element that people can associate with the parliament (Figure 5.5). It is also possible to express truthfulness by revealing the building’s construction, such as exposing the end of a wall to show the sectional quality of the construction.

Openness is also about an easy understanding of components, which translates into the legibility and effectiveness of the way-finding techniques for the building. At the Seattle Public Library, the signage is large and easy to find leaving no doubt about where one is within the building. Furthermore, the signage extends onto the escalators to clearly state where it ends and what part of the library is located at the other end (Figure 5.6). It is crucial in a public building to have great signage because the building circulation should not force a certain absolute path, but create multiple access points without fear of being lost or confused about where they are within the building. Another installation within the Seattle Public Library is the use of the self-checkout areas, which have proven to be very popular among patrons because they can get in and get out quickly. The self-checkout areas also allow users without a library card to
register by themselves without a librarian, which is important because a library can be an intimidating place for the first-time user, whether they are children or adults.

Utilizing layers is another way of expressing transparency through architecture. It is effective as a way of revealing the construction of a wall, or exhibiting past history. Foster uses a layering technique to preserve the Russian graffiti in the Reichstag by carefully demarking the joint between the original war-torn walls and the repaired new construction (Figure 5.7). This shadow line provides a clear visual separation and frames the history as one of the layers of the building fabric.

Openness and transparency is possible through increasing the accessibility and interactivity of a space. As previously mentioned, accessibility deals with more than simply allowing the public access to various spaces regardless of age or ability, because it also allows the combination of multiple functions within a space that have little separation between areas. This is evident in the Seattle Public Library in the living room space because the shop, the café, the reading area and the auditorium are all open to each other promoting interaction between the various functions. Interactivity is also makes it possible to create a personal connection to the architecture through technology. Sensors embedded in the floor can relay a signal to a wall graphic that displays a unique design as people pass over the floor. Other versions of this system light up the floor around the person as they walk along the floor highlighting their presence (Figure 5.8).

Accessibility also relates to how the public actually arrives to the building. A successful public library project has access from multiple points, and accommodates multiple forms of transportation including the private automobile, pedestrian traffic, bicycle, and public systems such as buses or light-rails. This is in contrast with many of the twentieth century libraries
where the entry welcomes the car, but leaves little room for arriving to the building in some other manner (Mattern 42).

Perhaps one of the most interesting examples of interactive design is an art installation in Stockholm, Sweden, entitled Colour by Numbers at the local business Telefonplan, by Milo Laven, Loove Broms, and Erik Krikortz. Shown in the image to the right, this artwork consists of a cellular phone tower with a series of lights on the side that correspond to the ten digits on a phone (Figure 5.9). By contacting a specific phone number, anyone with access to a phone possesses the ability to modify the light colors on the tower, depending on the combination of numbers selected during the call. This is a unique means of allowing for public expression because every few minutes the colors change to a new caller’s arrangement. The wonderful concept behind this installation is that the average citizen has the power to make a statement in colored light to an entire city, even if for only an instant. It effectively engages the public in a social context simply because it can possibly stimulate a conversation between two strangers that might not occur otherwise.

Openness relates to a lack of security devices within the space. It does not mean there is no security, but it takes a back seat and is not the central focus of the library design. Devices at the main entry points stop the introduction of weapons into the space, and a minimal amount of cameras do provide the watchful eyes as necessary. The security is not about using controlled access points or anonymous views such as those available with card readers and one-way mirrors. While card readers are necessary because there are private administrative offices, minimal use of them is possible by simply locating those functions on a single floor and controlling access to that floor rather than placing a combination lock on each door.

Expressing transparency through technology is a way of connecting a user with a building because the building demonstrates to the people how it works and become aware of
the behind-the-scenes equipment that drive the building. This is perhaps most evident in the use of a glass elevator shaft where the inner workings of the elevator are put on display to enhance the awareness of the vertical movement throughout the building (Figure 5.10). This allows the elevator to be more like an escalator in that the vertical movement through spaces is visible. Other clever uses of technology allow the user to appreciate how something works because we all have some level of mechanical curiosity within us. This explains the beauty that some people see in a well-tuned car engine where all of the individual parts cannot function on their own, but instead come together and work as a single machine.

Figure 5.10
The glass elevator shaft at the Seattle Public Library allows the elevator to be more like the escalator in that one can visually see vertical movement through spaces.
Chapter 6: Social Ramifications of the New Role of the Library

With the new library redefining its role within society, there are both positive and negative effects of this process. In the modern era of instant access to a sea of ‘haphazardly mapped’ information, the library acts as a reliable navigator to make sense and manage the information (Mattern ix). The library also offers access to information and knowledge that might be otherwise unavailable to some people, because the Internet does not yet connect to everybody. Even educational television programs found on cable television stations such as The Discovery Channel or the History Channel do not reach everyone, and the library provides a place to view these programs as an alternative to the printed media.

The library can provide the necessary groundwork to jumpstart neighborhood revitalization as cities look to redefine their identities. The city of Nashville, Tennessee discovered after revamping their libraries about how the health of the library system plays in the livability studies for cities.

“A city’s belief in the value of knowledge as evidenced by support of the public library system is a clear indicator of its overall vitality, as well as its attractiveness to persons and businesses seeking a positive environment in which to do business or raise a family” (Mattern 36).

Nashville believes in its libraries so much that they associated the overall health and well-being of a city with the health of its library system. An inscription above the entry to Nashville’s Public Library reads,

“A city with a great library is a great city” (Mattern 37).

The ability of a library to appeal and attract perhaps the widest demographical range of any other institution of culture makes it a prime starting point for the redevelopment of a city, especially within an urban setting. A library is visible as an anchor of
development around which other forms of entertainment, dining, and culture can arise and depend on the longevity and success of the public library.

A close evaluation into the diverse ways that people learn offers insight to make the library design more effective as an information hub. Architectural historian Abigail Van Skyck talks about how variations in the intimacy, the formal qualities of certain spaces, and the ergonomics of the furniture allow a wider range of people to use the space as intended.

“Spaces are now designed especially for different modes of reading, from cozy corners with comfortable chairs to monumental reading rooms that elevate the activity of reading by situating readers at long rows of tables within a community of intellectual engagement” (Mattern 110).

This statement illustrates the need for a variety of spaces within the library, even within the same functional area such as a reading room. Spaces for intimate reading are useful when one wants to cozy up and get lost in a good book. The less intimate areas provide venues for group study, or simply a more open and observant approach to reading and research.

A conceivable danger for the library embracing its new social role is that it is mistaken for a community wellness center as a place to provide health care. The library supports the community as a neutral meeting place and provides spaces that promote socialization. A potential downside to this community focus is the lack of quiet study spaces and the ability to execute private research is difficult, and people do not want to see the library transformed into a morphed version of the retail mall (Mattern 88-89). For some, the library is one of the last places to retreat from the pressures of society, and the increased levels of socialization occurring in libraries destroy this public haven. In the Seattle Public Library, Rem Koolhaas addressed this issue through the arrangement of an intimacy hierarchy extending vertically throughout the building. The most public and
interactive areas are on the lowest floors, and the most private and intimate spaces are at the top audibly away from the noisy urban environment deliberately introduced into the Living Room by the designers as a way of inviting the public inside (Figure 6.1).
Chapter 7: Thesis Precedent Analysis:
The Reichstag – Berlin, Germany

The Reichstag is the building that houses the governmental offices for modern Germany. Located near a slight bend in the river Spree in the center of the capital city of Berlin, the Reichstag has witnessed over a century of the country’s tumultuous history. The building and its function parallels with German history, which is full of constant political highs and lows.

German architect Paul Wallot won the design competition for the original building in 1882, and the building opened in 1894. Wallot chose to combine several styles of the period in the aesthetics of the new building. Combining elements of Baroque, Renaissance, and Romanesque architecture was Wallot’s solution to prevent estranging those citizens who preferred one style than the other (Schultz 20). The architect chose these three styles because of their meanings with the public. For instance, the people thought of the Baroque style as courtly, while they considered the Renaissance as very bourgeois and representative of the middle class. The Romanesque style was “regarded as a symbol of the imperial grandeur of the Holy Roman Empire” and therefore became known as the aesthetic of power (Schultz 20).

In 1916 at the height of World War I, the German Government placed an inscription reading “Dem Deutschen Volke” meaning “To the German People” on the western pediment as an attempted means of rallying the nation. The public resistance to the rule of Kaiser Wilhelm II and his despise for the building’s democratic symbolism led to the first political shift in the building’s history (Schultz 23). This shifted the symbolic power back to a more democratic ruling, rather than the power of Wilhelm II.

However, this period did not last long, because in the early 1920’s the Nazi group and Adolf Hitler began to gain
power during the economic depression that plagued Germany during this time. About one month after Hitler became Chancellor, the symbolic fall of democracy came on February 27, 1933, when the Reichstag mysteriously caught fire, gutting the building. Officially blamed on the Dutch anarchist Marinus van der Lubbe, it is widely believed that the Nazi party was actually to blame, however no proof of responsibility was ever discovered (Davey 34). Shortly after, Hitler restored the building’s dome with the intention of retaining the building for propaganda exhibitions, but these materialized elsewhere during his political rule.

World War II took its toll on the Reichstag, and the building showed years of fighting and nearly left the building in ruins (Figure 7.1). Most of this damage occurred when the Soviet Red Army advanced into Berlin and launched an all-out assault on the Reichstag in an attempt to seize the building from its German defenders. The importance of the Reichstag to the Russians goes back to World War I, when that very building was the obstacle that prevented the Russian revolution in Germany (Foster 52). Eventually captured by the Red Army and held until US and British troops met in Berlin after Germany’s surrender, the Reichstag lay in near ruins much like the rest of the country and parts of Europe.

After 1945, the building remained an empty shell even as the division of Germany into two separate zones, cultivated by the construction of the Berlin Wall located only feet from the Reichstag. Nearly a decade later in 1954, architect Paul Baumgarten began the restoration process for the building to house the newly formed Federal Republic government of West Berlin (Foster 56). Norman Foster classified Baumgarten’s renovation as a “wholesale modernization with little concession to the Reichstag’s historical shell” and consequently, the fire destroyed the dome and much of the original ornament in the exterior façade (Foster 56). Ironically, due to the Quadripartite
agreement of 1971, the German Bundestag, or parliament, could not use the Reichstag as long as the country remained divided. This essentially rendered the facility useless until a German history museum called the building home for several years (Schultz 28).

However, in 1989, the Communist rule of the Soviet Union began to self-destruct, and the economic crashing of Communism became represented physically in the destruction of the Berlin Wall and the reunification of Germany. A few years later, the Bundestag voted to locate the Parliament House for the united Germany at the Reichstag, which became a symbol of the people.

“For many people in East Berlin, the Reichstag building became a symbol for the unresolved issues of a divided German nation. It was the architectural symbol of the longing for a united Germany in which democracy, peace, personal liberty and social justice would be able to exist side by side” (Schultz 8).

In 1993, British architect Norman Foster won a competition to renovate the building once again as the Parliament House for the united German government. It was at this time before Foster’s renovation began that public artists Christo and Jeanne-Claude proposed wrapping the Reichstag in fabric as a symbolic cleansing of its dark past and a fresh outlook towards a bright future. Along with Foster’s renovation, this wrapping by the artists is a positive turning point for the building’s history (Figure 7.2).

Foster’s initial winning proposal placed an umbrella that united the old and the new portions of the building under one roof, but he scrapped this scheme with the adoption of a new master plan for Berlin (Schultz 9). Instead of adapting his initial scheme, Foster decided to reevaluate his original concept of interconnected issues (Foster 9):

1. *The significance of the Bundestag as one of the world’s great democratic forums:*
2. *A determination to make Parliament more accessible to the public;*
3. *A passionate commitment to producing an exemplary low-energy, environmentally friendly building;*
4. *A respect for history as a force that shapes buildings as well as the life of nations*

In adhering to his initial design concepts, Foster rearranged the interior of the building to represent the ideals of democracy. In looking at the overall building circulation for instance, he returned the main entrance and the debating chambers to their original positions as they were in Wallot’s design. The restoration of the entry sequence allows visitors to gaze upon the chamber immediately through a glass wall and make a visual connection with members of the parliament (Figure 7.3). Furthermore, because now the new main entry is open to everyone, the public and the politician enter via the same route (Schultz 56-57). This brief connection between the public and the politician makes an important statement about the position of the common citizen in the government. From the second level and by appointment, the public can sit in the debating chamber in the balcony seating and listen to meetings, and feel even more connected to their government.

From here, the public can venture up to the roof, where unobstructed panoramic views of the city surround the patrons. In the center of the roof lies the newest version of the dome over the debating chamber, one that allows rooftop citizens to peer down through a glass ceiling and onto the debating chamber below (Figure 7.4). Foster makes a similar gesture on the top floor of the building just under the public roof with space for the journalists and reporters lined with glass and views down into the debating chamber. Establishing this level of openness and transparency into the debating chamber is perhaps Foster’s most dramatic stance on the position of the public within a democratic society. This design places the people directly over the decision-
makers of the parliament; therefore expressing the power of the
public citizens lies ultimately over that of the politician as the
public vote determines their election. Schultz talks about
Foster’s cupola and its impact on the overall design.

“Foster was able not only to make functional use of the
principle of transparency, but also to create a powerful
symbol. By day, when visitors are sketchily visible on
the double helix of the ramps, but even more so at night,
when the glazed structure shines like beacon” (Schultz
92).

This symbolizes to those citizens far away from the actual
building, the presence of the chamber below. In resembling a
lantern, the dome symbolizes the enlightenment and
transformation undergone by the building while conveying the
“themes of lightness, transparency and public access that
underscore the project” (Schultz 11).

In the center of the dome is one of Foster’s
technologically ingenious elements that are his signature: an
inverted mirror curved to form a light reflector (Figure 7.5).
This element works during the day to reflect sunlight into the
debating chamber, while reflecting the interior lights outward at
night to enhance the lantern effect (Davey 40). While this is the
most obvious justification for the installation of the cupola, it
performs a double duty as a means of passively venting the
chamber through an opening in the dome on the roof.

Another one of Foster’s environmentally friendly design
solutions comes in the form of utilizing underground aquifers to
store excess heat and energy until needed during the cold winter
months. The excess energy is a result of the building generating
about 80-90% of its power and heating needs by burning bio-
diesel fuels at an internal power plant. In addition to the bio-
diesel generator, the south-facing section of the roof contains
solar panels that generate up to 40kW of electricity (Schultz 104
– 107). The energy factors of the design are drive by the
Bundestag’s desire to be on the forefront and use their political
position to set an ecological precedent for the citizens of Germany to follow (Schultz 104).

One of Foster’s initial design challenges was how to meet the old with the new. He states,

“As time went by this philosophy extended to include an understanding of how the scarred and graffiti-marked fabric of the Reichstag records the building’s troubled past, and how these scars, once revealed, could be preserved, allowing the building to become a ‘living museum’ of German history” (Foster, Baker, and Lipstadt 10 – 11).

His philosophy about the treatment of these joints evolved into clearly expressing where repairs of the existing fabric are located and where the original building fabric remains. This joint articulation is a thin shadow reveal, making his ethos easily understandable throughout the building (Foster, Baker, and Lipstadt 12).

Foster’s respect of history is partly expressed in his design concept to return certain aspects such as the circulation and debating chamber orientation to the way they were in Wallot’s original design. Another of Foster’s numerous dramatic gestures at the Reichstag was not initially a part of his design. After the Baumgarten renovation in the 1960’s, much of the ornament of the exterior stonework was lost, and likewise much of the interior had been hacked away through countless past renovations. It was only after workers began demolishing the 1960’s renovation that the original interior walls revealed themselves, complete with Russian graffiti (Figure 7.6). Foster explains,

“It had been so sanitized by reconstruction in the 1960’s that it was impossible to imagine anything of interest ever having happened there” (Foster, Baker, and Lipstadt 11).

This revelation of the building’s layers of history quickly became a point of interest for Foster, and the decision to either preserve or remove the graffiti became a very emotional topic for
all parties involved. Foster further states that it is because of this emotional argument that is reason enough to retain the graffiti simply because it is a “tribute to the openness of a society willing to face its past in this way” (Foster, Baker, and Lipstadt 13 – 17).

The Reichstag is a building with rich symbolism relating to the German people, their government, and their country’s history. Foster’s renovation took a fragmented, empty building full of potential and symbolic meaning, and transformed it into the primary example of the united Germany expressed through architecture (Figure 7.7). Every aspect of the building seeks to make a symbolic gesture about the past, present, or future of Germany, giving the building a very strong social meaning among its citizens.

Figure 7.7
The exterior of the renovated Reichstag
Chapter 8: Building Typology Precedent Analysis:

Seattle Public Library

“We are everything hyperbolic: We are the people’s university. We are the cornerstone of democracy. We are the community commons”

This is an important statement made by Deborah Jacobs, the city librarian at the Seattle Public Library, because she talks about the multiple roles of the Twenty-First Century public library (Mattern 36). The new public library located in the heart of the downtown business district is a perfect example of architecture reflecting the new social role of the public library. Designed by world-renowned architect Rem Koolhaas of OMA (Office for Metropolitan Architecture), the new central library is a tremendously wonderful and truly free public space that has rejuvenated the way in which the entire Seattle region learns and interacts with knowledge and information of all media types. Since its opening in May 2004, the Seattle Public Library has had an incredible academic, social, and economic impact on the region.

From the earliest stages of planning for the project, OMA and Koolhaas sought to question and attempt to redefine the library’s typological function because the process of obtaining information no longer revolves solely around the printed book, but instead includes many other forms of media, some of which does not even exist physically outside of cyberspace. OMA states in their concept book for the library design,

“Our ambition is to redefine the Library as an institution no longer exclusively dedicated to the book, but as an information store where all potent forms of media – new and old – are presented equally and legibly. In an age where information can be accessed anywhere, it is the simultaneity of all media and, more importantly, the curatorship of their contents that will make the Library vital” (Kubo, Prat, Ferre, and Hwang 11).
This fresh perspective on information storage is especially important for the city of Seattle because of its “cybercity” status in the world, and one that “must transform itself into an information storehouse aggressively orchestrating the coexistence of all available technologies” (Olson 89). Koolhaas believed that it is a disservice to the library as a social function for designers to embrace tradition and not rethink how it will serve the community both functionally and architecturally. Technology has forever changed the way people obtain information, and the library is no longer a fortress for books as it was during the Carnegie era (Mattern 70). This paradigm shift is crucial for understanding Koolhaas’ reinvented library design.

The library does not function the same way that it did twenty years ago before the influx of computers and other technologies of information storage.

OMA quickly began to look at new ways of incorporating flexibility into a library facility. They stated that the traditional library arrangement integrated several program functions into a single space, resulting in the ultimate reduction of one section if its adjacent function expands. To resolve this issue, OMA grouped the library’s similar functions together and permitted expansion only from within each allocated space, thus allowing flexibility from one area to occur independently without affecting an adjacent program (Kubo, Prat, Ferre, and Hwang 14 - 15).

By categorizing the various functions, OMA identified five major areas of “stable” program: parking, staff spaces, meeting areas, the book spiral, and the administrative offices. Each of these five platforms represents a programmatic cluster that is very specific with respect to its aesthetics, materials, structure, and most of all performance (Figure 8.1). When stacked on top of each other, the void spaces remaining between the stable platforms contain the “unstable” areas of the program, such as the children’s area, the living room, the mixing chamber,
and the reading room. These unstable floors are the locations throughout the building where the librarians interact with patrons and this is where the interface between the various platforms occurs (Kubo, Prat, Ferre, and Hwang 18 - 26). In effect, these spaces become the social hubs of the library, containing a mixture of spaces for work, interaction, and play. To contextualize the platforms and to respond to desired views or urban conditions, OMA pulled each platform out of vertical alignment to access vantage points to Mount Rainier, to Elliott Bay, from the nearby interstate, and control the sun’s ability to penetrate deep into interior spaces. The shifting of the platforms is what gives the building its visual instability and character from the exterior. The result of this tensioning of the platforms are grand, almost cathedral-like interior spaces that are volumetrically unique in all three dimensions which interconnect multiple levels of program in the library with the ability to communicate between levels because the higher level does not fully cover the lower level (Kubo, Prat, Ferre, and Hwang 30) (Figure 8.2).

One of the main components of OMA’s revolutionized design is the book spiral, which arranges the entire non-fiction book collection in numerical order along a continuous spiraling floor (Figure 8.3). According to OMA, the problem with compartmentalizing the library collection is that the growth within the section is unpredictable. For instance, twenty years ago there were no books about Computer Science, whereas now an entire section exists and is constantly growing larger. By arranging the books continuously along the Dewey Decimal System, future modifications to the stacks is a much more simplified task in that the new material just shifts the books farther along the spiral and not into an adjacent program area. The flexibility OMA designed into the Seattle Public Library is staggering, because the stacks can currently hold up to 780,000 volumes, with the potential to expand up to 1,450,000 as
necessary, but without adding a single new bookcase (Kubo, Prat, Ferre, and Hwang 34).

Another problem raised by OMA with specific subject departments is that it forces the isolation of the librarians with specific knowledge of a particular subject. By combining all of the sections into a single stack area, a few librarian stations are able to serve the entire book spiral, whereas the previous method of subject departments requires a station for each area. The concept of the “mixing chamber” seeks to combine the subject research into a single space where the majority of librarians can work to answer questions and use the knowledge of fellow staff members to better service the patrons, effectively surrounding them with a richness of information sources (Figure 8.4). Hundreds of computers fill the space with additional tables for people to bring their own laptop computer and still have access to the available librarian resource. It is a space designed for “maximum librarian-patron interaction, a trading floor for information orchestrated to fulfill an essential (and currently
neglected) need for expert, interdisciplinary help” (Kubo, Prat, Ferre, and Hwang 38).

Situated in the heart of downtown Seattle, the central library glistens in the sun due to its skin of diamond-shaped glass panels set in planes angled to reflect the interior shifting of the stable programmatic spatial planes. Much like a geometrical “shrink-wrapped” effect, the skin moves in and out at various angles to connect the shifted levels of program, and the resulting interior volumes enclosed by the skin become the grand spaces of the library such as the living room and the reading room (Figure 8.5). The all-glass exterior allows passersby to look inside and constantly bring books, librarians, and patron activity to the street life, and likewise bring the street life indoors. The transparency of the exterior skin also allows the building to glow like a lantern at night, illuminating the activity occurring inside the building. Some of the glass panels control the light levels on the interior with a metal mesh inserted between two layers of glass. Similar to the wire mesh normally used to attach stucco to a wall this uses the mesh as a light filter to screen out the harmful direct sunlight while preserving the fantastic views out to the surrounding city, the bay, or the naturally beautiful landscape.

A criticism of this light filtering method is that the mesh is visually heavier than common household flexible screen material, and is therefore very straining on the eyes when one looks through the glass at a close distance. The pixilated view of the exterior through the mesh and glass sandwich works from a certain distance, but is comparable to sitting too close to a television when trying to look through the window up close. Arguably, this instance occurs when readers most need vision to the outside, such as resting their eyes from the close-up of a book and instead focus on an object far away to reduce eye fatigue.
The sloping site allows a main entrance on both the lower Fourth Street side to the west, and the upper Fifth Street side to the east of the building. On the north side of the building along Spring Street midway between Fourth and Fifth Streets is the entrance to the parking garage under the building containing spaces for 143 cars. This is a dramatic improvement from the previous library facility at the same location, which had no on-site public parking (Kubo, Prat, Ferre, and Hwang 150). On the south side of the building along Madison Street is the shipping and receiving loading dock entrance to the second floor of the building dedicated to book sorting and other administrative functions.

Entering the building on the Fourth Street side at the first floor, one of the main check-in/out desks is immediately front and center (Figure 8.6). This desk contains the conveyor system that collects the books at the desk and transports them up one floor where computers sort and stack the books on a cart for either returning to the stacks or shipping to another branch library. This technology is not new, as evident through professional packaging services such as FedEx and UPS, but it is new to libraries for sorting books (Figure 8.7). This technology allows the librarians to actually do what they do best, which is help people find information efficiently, instead of spending countless hours endlessly sorting books. This technology also had a dramatic impact on the staff efficiency because even though the building size increased along with the book count, the library actually reduced the amount of staff allocated for sorting books from dozens down to three people (Harvey F11).

The other functions located on this floor include the ESL (English as a Second Language) section, the Children’s section, and the auditorium. The ESL section contains books written in foreign languages as well as audio cassettes of books teaching other languages. The unique element to this area is the floor, which is an art installation by Ann Hamilton. Inscribed in the
floorboards sits a reverse relief print containing the first words of the library’s foreign book collection in 11 languages meant to symbolize the experience of learning how to read words from the interpretation of previously unknown symbols and letters (Figure 8.8). The text is in reverse to symbolize the old style printing process of stamping the text onto the paper (Jacobs).

The children’s area, also located on this floor, provides open spaces for books, reading, computer access, and story time located in an area screened off from the rest of the space for privacy. OMA designed the space as a “cocoon that stimulates curiosity” and has a mix of spatial diversity such as changing elevations, materials, and even lighting. Bookshelves are shorter to keep items on the top shelves within reach of a child, and the computer desks are slightly smaller to accommodate a child’s body. Books arranged along the top of the shelves standing upwards allow the artistic covers to stimulate a visual reaction among a child to read a book (Figure 8.9).

The 275-seat auditorium acts as the main visual connection between the first floor and the third floor living room. The arrangement of the seating parallels the slope of the site and is partially open to the main spaces of the first floor. The auditorium is a very flexible space for author lectures of a range of sizes because of a retractable curtain that can close off a portion of the seating for small private lectures (Figure 8.10). The curtain can also remain open to allow large crowds to listen from the upper area of seating which is completely open to the living room on the third floor.

The main vertical circulation throughout the library is a series of stairs, escalators, and elevators, all of which OMA painted a chartreuse green color to draw the eye and create a commonality between all of the vertical movements throughout the building (Figure 8.11). The use of the escalator is seemingly a response to Western culture in which people interact more on escalators than inside elevators because of the spatial differences...
between the two methods of vertical transportation. Also, the escalator moves at a slower rate than the elevator, allowing for the drama of slowly revealing a space as users reach the top of the run.

Because of the vertical arrangement of this library, highlighting the vertical circulation is very important to establishing an efficient flow of people from one level to another without creating confusion about where they are or where they want to go. On the inside panels of the escalators is large signage letting users know where that particular escalator is taking them (Figure 8.12). The escalator from the first floor to the third floor contains the words “living room’’ because that is where it ends. A similar graphic for the elevator shows an outline of the building and a label that lights up for each floor based on its function. The elevator shaft has glass on three sides as a means of expressing the vertical movement that is similar to the constantly moving escalator. Similar to the chartreuse color for the escalator, the interior of the elevator cab is the same color, as it is part of the vertical movement system for the building. The combination of the color and the signage work together to create a circulation system that is very easy to understand and maintain a reference point inside the building and thus is an extremely user-friendly vertical circulation system.

The entry from Fifth Street brings visitors immediately into the main large open space of the library. Koolhaas refers to this grand space as the “Living Room’’ because it is a space for a wide variety of activities and is the transitional space between the busy city street life and the more structured functions of a public library (Figure 8.13). The Living Room is the space inside the building where one feels free and encouraged to talk and interact with other people, a process usually frowned upon in the traditional library. The new public library concept established by Koolhaas does not ignore and condemn quiet
spaces and privacy, but rather provides the necessary space of transition and preparation for softer activities. Looking at the library in section, it is possible to uncover a hidden intimacy and noise gradient as one ascends through the building vertically. The “loudest” spaces such as the children’s area and the auditorium are on the lowest levels, and the quietest spaces such as the Reading Room and the administrative offices are on the top floors.

As the main civic space of the library, the Living Room is a place for sitting, reading, meeting friends, browsing the Internet, snack, watch people, and sample the fiction collection dispersed throughout the floor. The Living Room provides an inviting and inspiring space, which conveys the mission of the library by visually connecting multiple interior functions such as the children’s area, the book spiral, and the mixing chamber (Kubo, Prat, Ferre, and Hwang 93). This connection of multiple spaces is possible through the large open atrium, which extends from the Living Room up to the top administrative floor above the Reading Room. Not only does the atrium work to make the Living Room a grand space, but it also helps patrons to orient themselves once inside the library because it is common to all of the floors above the Fifth Street level. This constant connection prevents disorientation among patrons and allows them to reconnect visually with the indoor urban lifestyle of the Living Room from the top floors of the library (Figure 8.14).

Upon taking the bright green escalator up, it is clear that the Mixing Chamber is the true technological and informational hub of the library. Computer stations and empty tables fill the floor, which overlooks the Living Room below. This floor contains the main librarian desk, providing a one-stop shop for information about a wide range of subjects. One of Koolhaas’ design concepts is that he sought to increase the efficiency of the librarians’ daily tasks and remove them from the monotonous task of simply cataloguing books. Along with the automated
book-sorting machine, the Mixing Chamber condenses the previously specialized librarians into one main desk where they can interact efficiently with patrons and each other, allowing for a greater transfer of knowledge and a more interactive working environment. If a patron has a question about art and medicine, that person does not have to venture to two separate zones of the library.

“The Mixing Chamber consolidates the library’s cumulative human and technological intelligence: the visitor is surrounded by information sources.”

This need is often unfulfilled in the traditional library (Kubo, Prat, Ferre, and Hwang 38). Because of its quiet atmosphere while still buzzing with human activity, the Mixing Chamber is the first space along the ascent to the top of the building that even remotely resembles the traditional library. Patrons sit face-to-face at hundreds of computers and open tables with the occasional intervention from a librarian eager to provide helpful information (Figure 8.15).

The Mixing Chamber provides access to the administrative meeting room floor below through a stair. The entire meeting room level is painted bright red to promote interaction between library patrons and staff using the floor (Figure 8.16). The layout of this floor consists of amoeba-shaped walls and rooms with translucent doors, which filter the light from the outside into the dimly lit corridors of the floor. The almost fluid walls and multiple ways of accessing this floor seem to make it resemble the “heart” of the building’s function because it is where the staff makes important decisions about the future of the library.

Adjacent to the stair leading to the meeting room floor is the long, narrow escalator ascending to the book stacks and eventually the top floor reading room. While riding the escalator, patrons are able to catch views over the boundary walls of the Mixing Chamber and into the offices behind the

Figure 8.15
The Mixing Chamber of the library, filled with computers and librarians eager to answer questions of any topic.

Figure 8.16
The meeting room level and its amoeba-shaped walls are painted red to promote interaction between library patrons and staff.
librarian’s desk and through to the outside views. This glimpse over the border wall is important for reinforcing the lack of segregation between spaces within the building and establishing a sense of orientation. Arriving at the top of the first escalator on the bottom level of the book stacks, patrons have the choice to either venture out into the stacks at this intermediate stop or travel up the second escalator reaching all the way to the reading room.

Gently arriving at the top of the second escalator, the grand spatial volume of the reading room is immediately apparent (Figure 8.17). On this level, the exterior building envelope slopes inward to meet the outline of the smaller top-most floor of the library, which is dedicated for more administrative offices. Light pours into the space and greatly minimizes patron dependence on artificial sources. Directly adjacent to the escalator starts the reading room as well as the descent of the book spiral floor profile. Three divisions within the reading room allow it to step down with the gradual slope of the book spiral. This also allows even the people sitting the farthest away from the west wall to look out and catch views of Elliot Bay without people in the other areas blocking their views. The reading room is a quiet space fit for studying, researching, and of course casual reading.

Arriving at the west end of the reading room, patrons can then enter the book spiral (Figure 8.18). As previously mentioned, the beauty of the book spiral concept is that the library is able to add to their collection anywhere within the stacks without spilling over into another area of the library. The slight slope of the spiral is entirely wheelchair accessible, and consists of hundreds of short ramps along the linear direction of the spiral. Each space between the bookshelves used to access the books is a level landing. It is difficult to reason that the floor achieves an adequate vertical drop over its length to allow a comfortable ceiling height, but it does.
Navigation through this book spiral could be a potential nightmare if it were not for very user-friendly graphics. Uniquely displayed in the floor with rubber tiles, the signage for the Dewey Decimal System is removable and therefore able to adjust as the library grows its collection (Figure 8.19). A stair connects the reading room with the lowest book spiral level, making the task of jumping across multiple levels of the spiral a short journey. A criticism of the book spiral is that none of the open stairs or escalators descend directly back to the Mixing Chamber. The only way of returning down to the Mixing Chamber is through a fire stair tower or the elevator. This aspect of the way finding is very disappointing because every other transition between spaces is dramatic and exciting and the journey down seems to be an afterthought of the equation.

From the initial stages of design, Koolhaas and OMA wanted to give Seattle a new library unlike any other of its kind (Figure 8.20). The design team set out to redefine the role of the public library in the new era of an ever-increasing presence of technology, and because of Seattle’s position in the information economy, symbolically there is no better city for the new library of the Twenty-First Century. Computers and technology make life easier and more efficient by condensing tasks and interconnecting people in ways never before imagined, and consequently they are learning in new ways as well. The traditional function of a library as simply a place for book storage is vastly outdated, and the awkward integration of computers and technology into the traditional library is evidence supporting the need for changes in the way the public gains knowledge of all forms.
Chapter 9: Site Context and Analysis

The site chosen for the library project is at the southeastern corner of the University of Cincinnati main campus (Figure 9.1). The site borders are Vine Street to the east, Scioto Street to the west, Calhoun Street to the north, and West McMillan Street to the south (Figure 9.2). This block of property is the former location of a nightclub, a parking garage, a small number of row houses, and a few fast-food restaurants. The community of Clifton Heights scheduled a development for the property around 2002, so the developer demolished all of the existing buildings, but the project stalled, and the site remains empty (Figure 9.3-9.4).
This site provides several opportunities that suit a library facility. Firstly, the site is accessible through multiple modes of transportation including bus routes on three of the border streets except the west street, there is available street parking surrounding the site, and its close proximity to the university allows students to easily use the facility as a supplement to the university library systems. The intersection of Vine Street with Calhoun and McMillan Streets encompass the main transportation routes into and away from the site, so the placement of a civic function such as a library along these roads is important for providing access to the greatest number of surrounding neighborhoods as possible.

The site contains a dramatic elevation change of approximately thirty feet from the lower southern border to the higher northern border. This provides a unique opportunity to vary the levels of entry into the main interior space and cultivate social interaction simultaneously in both the vertical and horizontal directions (Figure 9.5). The sloping site also allows the location of the necessary but unsightly functions of the program, such as the staff parking and the loading dock, underneath the building and out of the environment. This also prevents the automobile from dominating its presence within the building site.

The dramatic slope of the site means that the roofs of the buildings across McMillan Street to the south are approximately level with the highest elevations on Calhoun Street. Because of the buildings to the south sitting lower with respect to the library site, the upper floors of the library will have unobstructed views of downtown Cincinnati (Figure 9.6). This visual connection to the downtown business district is important for establishing the prominent presence and monumentality that is desirable in public buildings.
The surrounding built context consists of the historic St. George Church and the Corryville Elementary School to the north, a CVS Pharmacy across Vine Street to the east, and apartment buildings to the south (Figures 9.7-9.11). The context to the west is small retail shops and row houses. Due to the location of the university near the site, other buildings within a short walk of the site include a grocery store, several bars and restaurants, additional housing containing both permanent residents and students, and other retail shops that feed off the university student support.

Figure 9.7
Old St. George Church to the north of the site

Figure 9.8
Aerial image of site highlighting significant surrounding context, the most important being Old St. George Church

Figure 9.9
Corryville Elementary School to the northwest

Figure 9.10
Looking west across Vine Street at the site.

Figure 9.11
Looking southeast across site from the high elevation of the site.
Chapter 10: Building Program

Historically, the center of the library program was around the importance of the book as the source for information. Technological advancements have challenged this traditional arrangement of the library program, and the library of the 21st Century must reflect this shifting of the paradigm. Instead of a centrally focused library, the new library is the opposite and focuses outwards in attempts at engaging the surrounding community.

The focus of the new library is the social mixing zone, which is the main public space within the building. All other functions radiate out from this space and maintain various levels of connection to this space (Figure 10.1). All of the main entries to the building lead to the social mixing zone. The entries respond to the surrounding neighborhood context and their topographical elevation. The lowest entry is at the intersection of Vine Street and McMillan Street, responding to the Mt. Auburn and Clifton Heights neighborhoods to the south and east. The intermediate entry is the same elevation as the social mixing zone, and responds to the Corryville neighborhood to the northeast. The third entry is at the highest elevation on the site, and responds to the Old St. George Church to the northwest corner of the site. The concept behind this particular entry is to maintain an unobstructed vertical panoramic view of the historic church from within the social mixing zone, and consequently this idea will drive the entire building design. The intended use of this space is that of a social hub for the surrounding neighborhoods as a place to meet friends, relax and read a good book, magazine or newspaper, or simply watch and observe people. This space is the most significant, and therefore must be of an appropriate volume to convey its importance, and allows the upper floors of the adjacent library functions to maintain connection back to this space (Figure 10.2). The social mixing zone will contain some programmatic functions that relate to the
social functions of the area, such as the gift shop, café, and the auditorium. Also in close proximity to this space is area dedicated to popular culture media and spaces for art installations. This is a place where someone can read the latest copy of a magazine or the newspaper without having to travel into the actual library stack spaces of the building. The goal of these elements of program is to engage the public and get them inside the building, and eventually up to the stacks to the books.

The exterior functions at ground level are mainly on the more public east side of the site, and are partially open to the south. The intention is that these spaces can get full morning sunlight as well as through the early afternoon, and the bulk of the building on the west portion of the site filters the harsh evening sun. These spaces are for outdoor gatherings, newsstands, and other vendor types to set up shops daily and appeal to passing students and others who walk through the area on a daily basis. These areas are less formal than the spaces enclosed by the building and support louder activities that are not as desirable within and enclosed environment, such as sidewalk conversations and interactions.

The other spaces of the building are the administrative office areas, the book stacks, computer area, reading areas, and children’s area, exterior reading areas on multiple floors, public locker rooms, loading dock, shipping and receiving area, mechanical spaces, and public parking under the entire building (Figure 63).

The administrative offices have direct access to the social mixing zone as a means of promoting interaction between the library staff and the patrons. This area contains functions such as meeting rooms, staff offices, conference rooms, and other back-of-house type spaces. The staff for the extracurricular programs offered by the library such as literacy and writing classes would maintain offices in this area of the building as well.
The book stack space is likely to be the largest function in the building. This includes space for newspapers, videos, audio tapes, magazines, journals, encyclopedias, maps, photos, compact discs, and all other forms of media. This space will take advantage of natural light, but control its admittance to the space to protect the media from damage.

The computer space is the searching center for the library and is the space that patrons will look for first to find something, and as such has a direct connection to the social mixing zone. The intent of this space is for librarian/patron interaction and easy assistance for help.

The main reading room is located at the top of the building, above the book stacks. This space requires a level of quietness, so its location as far away from the social mixing zone as possible is important for maintaining privacy. This space will have natural light for a majority of the day, as natural light is easier on the eyes for reading. Indirect light for this function is critical for reducing glare on the book pages. It is also desirable to incorporate outdoor spaces to allow reading outside in times of good weather. Lastly, because of its location at the top of the building, this space will offer some of the best views out towards downtown.

The children’s area is another very important space within the library, because it is important that children have a space that makes it easy for them to learn and to eliminate obstacles that might hinder this process. It is also important to have a secluded private space for group story time as a refuge from distractions that occur in a children’s area. It is also important that this space be lit with natural light as much as possible because it is a healthier environment for learning, and should be connected to an outdoor space for reading outside when the weather is clear.

Public locker rooms are a necessity in modern society because of the popularity of alternate modes of transportation
such as scooters, skateboards, bicycles, and simply walking. It is important for a library to have a space where people can have a quick shower and change clothes before using the resources. Being adjacent to a major university, this library is sure to see its share of students that would not ordinarily walk but will bike to such a facility if provided a place to freshen up.

The loading dock and adjacent shipping and receiving areas are where deliveries occur both to and from the library. This essential part of the building is not one that is particularly desirable for the public to see. This site lends itself very well for hiding this piece of the program with the large topographical drop from the northwest to the southeast corners of the site. Positioning of the dock at the lowest building level allows for maximum functionality while having minimal impact on the aesthetics of the exterior of the building. This level is also a prime location for some of the necessary mechanical equipment because it is out of the main view from the exterior.

The public parking under the building is an added benefit provided by the steeply sloping site in that access to the garage is level with the street at the low end of the site. Public parking at the library is important because so many people depend on the automobile in today’s society. Currently, there is insufficient on-street parking for the people that attend a library on a daily basis. It is also beneficial to have a place for the library staff and patrons to park their cars safely on-site under the building, thereby not further contributing to the heat-island effect produced from a large open-air parking lot.
In the desire for a synthesis between the research and design for this thesis, the clear expression of the building’s function and purpose became the basis for the overall building design. This idea is evident in the building form and carries through to the detailing of the exterior materials. For instance, the overall building form is a repetitious series of transparent volumes between solid volumes, arranged around the transparent form of the social mixing zone, which is the most prominent volume of the building. Shown in Figure 11.1, the alternating repetition of forms allows the solid volume to contain the programmatic functions, and the void spaces to contain the circulation routes throughout the building, while connecting solid to solid.

The design philosophy behind the exterior building materials utilizes a balance of a variety of screen densities to convey the areas of solidness and the areas of transparency respectively. The areas of the building skin meant to read as solid take aesthetical influence from the de Young Museum of Art in San Francisco, by architects Herzog and De Meuron. Shown in Figure 11.2, the building skin is a metal mesh that screens views in and out while allowing the building to appear as a solid form in a certain light, but in other instances undertake a new aesthetic and partially reveal the interior spaces. Translating this idea into the library design, a rain-screen of perforated metal panels is the main skin material that covers the building where solid readings are formally desirable. As this seemingly solid material wraps around to the shorter sides of the solid volumes, the panels peel away and gradually reveal the interior functions through the expansive windows between the solid end walls. The programmatic functions behind this glass is study rooms, where natural light is desirable, but too much direct sunlight is counter-productive for the activity. Between the peels of the perforated panels are horizontal slats to allow more light
to enter the interior, but also provide some level of sun shading on the south elevation. Figure 11.3 to the left shows a study model of how the metal panels and the horizontal slats adjoin in front of the large glass windows to provide a screened view both into and from within the building.

The glass exterior walls and large volume of the social mixing zone imply that the function of that space is to promote the open and free exchange of information between people. This space is the main programmatic function of the library, and as such, is justifiably transparent in aesthetic. The transparent walls of this space also function to attract visitors inside and create environments that can stimulate social interaction between people, and therefore and information exchange.

Perhaps one of the most important aspects influencing the exterior of the building is the integration of media into the building skin. Remaining true to the design theme, the inclusion of signage in various forms became important as a means of clearly expressing the function of the building. Figures 11.4 and 11.5 are examples of the signage on different areas of the building. As previously mentioned, this building is officially a Mediatheque, which is the modern terminology for the media hub that is a library. The skin expresses the signage by varying the perforations in the metal panels, as in Figure 11.4, and by changing the signage material to a glass fritting as it overlaps the windows, as in Figure 11.5. Figure 11.6 shows an example of a ticker at Times Square in New York City that is constantly conveying information to the passersby. This building has two tickers located at highly visible areas of the building for promoting library and community events to a mass audience.
Another form of media integration into the building is the incorporation of a large LED ‘JumboTron’ on two areas of the building skin utilizing media to stimulate activity in and around the facility. This large television would act like the ticker feature and promote both library and neighborhood events with the added bonus of graphic advertising. These screens make it possible to convey large amounts of information quickly and clearly. The screens also make it possible for the facility to host a ‘movie night’ on a regular basis as inexpensive entertainment for the surrounding neighborhoods.

The inclusion of multiple outdoor spaces for reading is an important part of the building program. Shown in Figure 11.8, these spaces allow patrons to enjoy fair weather days while engaging in information exchanges. Whether inhabitable or not, vegetated roof terraces require a significant supply of water to maintain plant growth all year long, and ideally an on-site collector to provide the necessary water requirements. The main roof of the social mixing zone is suitable for this task as it is a very large plane and can generate enough water to satisfy nearly all of the needs for the vegetated roof terraces. In relating this idea back to the thesis concept, it is important to express this collection, storage, and ultimate usage of the water. This is achievable by diverting a large portion of the water directly to a cistern located in the parking garage level of the facility, with the remaining runoff water spilling out of the gutter near the main entrance onto the landscape and into a secondary hidden collector. In principle, this is similar to a rain barrel system for a home where it can be visually stimulating to see the water collecting in the barrel.

The final design implication is that of the exterior material of the public plaza located on the northeast corner of the site. A vegetated wall relates the building material with the function of the plaza at the top while providing an interesting aesthetic and a unique texture for the popular media section of
the building, both of which will undergo constant change. This function of this public plaza is to provide a place outside the walls of the building to gather and meet friends or socialize. Shown in Figure 11.9, the plaza also includes spaces for vendors to set up shop daily and sell food, flowers, newspapers, magazines, and other items. This large open public space allows the facility to host movies and seat several hundred people comfortably. Figure 11.10 shows an example of a vegetated wall designed by Patrick Blanc, located at the Musee du quai Branly in Paris, France, designed by architect Jean Nouvelle.

The pursuit of a synthesis between research and design led to an emphasis on the clarity of the building’s function through its aesthetics. The introduction of a variety of materials with different readings and densities drove the formal qualities of the design. The varying densities of the materials work together with the function to provide a near solid screening where necessary, and yet define spaces where a lack of barriers is also appropriate. By establishing this language for the materials within the architecture, it is possible to dictate the activity that occurs within a given space.
Summary

It is important to reiterate that the architecture is not attempting to be the architecture of democracy, but instead architecture that allows the free exchange of information to occur, which is a fundamental principle of democracy. There are certainly iconic buildings in society that symbolize and represent democracy because of their functions, but often the architectural expression and symbolism represent power over people, instead of power of the people. It is egotistical and superficial to attempt to establish an architectural style that is democratic in nature. Democracy is a social value, a status that transcends the abilities of architecture; however, the architecture can create an environment that supports democracy through various levels of openness and transparency in the materials and spatial relationships. The public library of the Twenty-First Century is a true expression of a democratic building typology due to its social role as a knowledge bank promoting literacy to all citizens. The age of cyberspace has forever changed the way society learns and obtains information, and therefore the architecture must express a free and borderless transfer of information.
Reflection

This thesis began as a search for the architecture of democracy – something I discovered later that is an insatiable quest. The thesis direction seemed lost at first, analyzing geometry for a ‘democratic’ form and attempting to allow that to drive the building design. The process of taking the site and making a program work with desired relationships also did not yield much progress because it lacked the core values discovered through the thesis research that was yet to come.

The turning point of the thesis came when I visited the Seattle Public Library, and this building turned out to be an invaluable resource to my research. Studying this radical new solution to an established typology such as the library allowed me to rethink my goals of what I was ultimately trying to achieve. I noticed the way OMA used a variety of materials yet remained consistent with their gestures and meanings.

Soon after returning to Cincinnati, I decided to analyze the word ‘democracy’ and break down the definition into keywords, and the two most prominent were ‘open’ and ‘transparent’. Taking the process further, I analyzed those two words for similar keywords. The resulting phrases began to yield architectural examples, thus the matrix diagram included earlier in this thesis document.

Armed with a language for design, I could then attack the program and customize it to the site conditions. Contextually, the design revolved around the Old St. George Church, despite its nearly catastrophic fire in February 2008. The remaining form of the building results from the row houses that formerly existed on the site and those that remain across the street.

The level of openness in the exterior skin of the building reflects the interior function, and provides a variable aesthetic that reduces the scale of this very large building. The introduction of media to the exterior materials resulted from the
truthful expression of the building’s function as an overall whole as a collection of all forms of media. I feel that the Mediatheque project is a valid and thorough example of my thesis, and I hope that my research both informs and inspires readers about the importance of literacy in a democratic society. The extensive library system of the United States means that we live in a true democracy – we have the power to learn.
Bibliography


