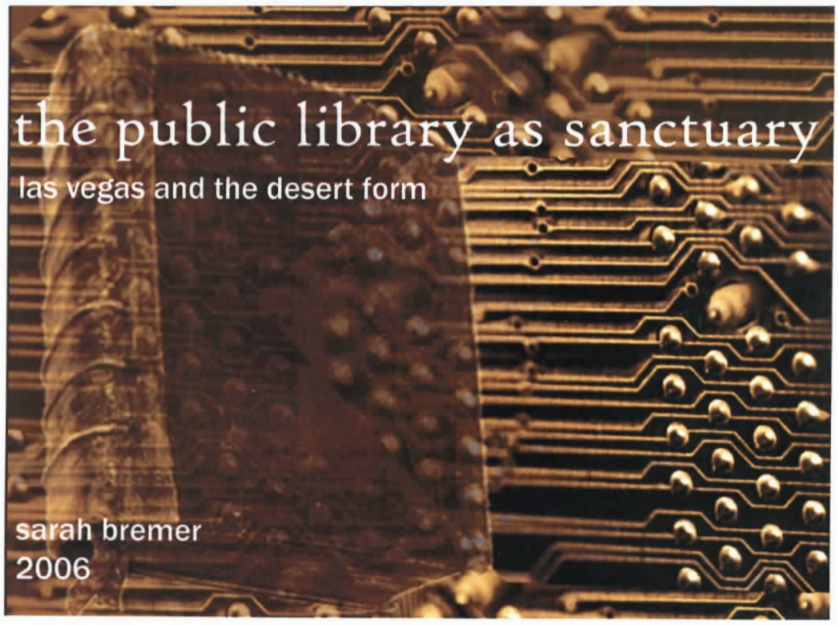
antithesis: the public library as sanctuary

las vegas and the desert form



sarah bremer
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antithesis: the public library as sanctuary

A Design Thesis Submitted to the
Department of Architecture and Landscape Architecture
of North Dakota State University

By

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In Partial Fulfillment of the Requirements
for the Degree of
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antithesis: the public library as sanctuary

abstract:

The thesis project typology is a public library. The library is located in Las Vegas, Nevada at the intersection of Flamingo Boulevard and Swenson Street. The library is roughly 100,000 square feet with 30,000 square feet of underground parking.

statement of intent

the project typology:
The typology is a library for contemporary society.

the theoretical premise:
The thesis will examine the relationship between the library and the pressures that the information revolution, industrialization, and the divergent levels of education of American citizens are exacting upon it. Las Vegas will be the site for the library. Design metaphors, analogies, and/or tectonics will be developed from the examination.

the project justification:
As access to information becomes more universal and citizens adjust vocational and educational goals to changing market demands, library design will turn its focus towards the provision of flexible community space.

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"For hardly anyone in the cosmopolitan, wired, image-choked, soundtracked, speed-driven world has the luxury of living as if the unlimited media were not rushing by." (118, Gitlin)

narrative

the impetus:

The information age is at hand, and though we may not fully realize it yet, no other force will so dramatically affect the way we live in our lifetimes. Information is so readily available it overwhelms us. It is with us at every moment. From the traditional media outlets of television-newspaper-magazine to T-shirt advertising, cell-phones, and our sound-tracked lives, information is reaching out to us. We merely sit back and wait for its arrival. The development of the internet connects us with such immediacy. Indeed, we hardly need to expend effort: nearly every piece of information we could seek is found easily on the World Wide Web. And more is coming.

As the industrial revolution changed nineteenth century Western society and the city, and the automobile created the suburb and sprawl, this new revolution will exert strong pressure on society. We have only educated guesses as to the form.

ideas

Considering the implications of the information revolution involved me with the possibilities of libraries. I began researching the other pressures upon libraries today, and what these pressures do to change the nature of a public library.

of consumption:

What becomes a library's function when information no longer needs to be stored physically for access? The word derives from the Latin, librarium, a place for the storage of books. If you believe the hype, the World Wide Web is capable of holding every book currently in print within its net. However probable or improbable that may be, it is more dubious that

you would find a person willing to input all nine hundred ninety-nine million tomes, in several different languages, to the waiting internet. And aside from the mechanics of it all, does capability even matter when it doesn't match with the user's desires? People prefer books. They prefer handouts. They prefer tangible stock. When digital alternatives to print media are presented (think e-journals, class syllabi, etc.) they are almost always printed for consumption. We like the tactile sensation, the ability to mark pages, to underline key passages, to see the checkout stamps of worth upon back covers, each a recommendation of sorts towards the information's worth. Convenience is wonderful. But we hunger for experience.

ideas

of ownership:

Who owns information in this digital age? The verdict on this question could alter the way we live as society; sew the beginnings of a global socialism. While Napster and the like duke it out in the courts over ownership, the results of these decisions extend well beyond music to the broader topic of intellectual property. If we still live in a proprietary society, who regulates the disbursement of information? By which I mean, who are the gatekeepers to information that is owned? If author's still own their intellectual property, how does that information become regulated in the intangible world of the internet?

Ideas of publishing books on the web, so that anyone anywhere may access this particular information don't consider or postulate what occurs to the publishing industry and the authors of these works if all their intellectual property becomes free. If publishers fall by the wayside, who ensures accuracy? Are we creating a climate for the degradation of information and creative works if we fail to support the gatekeepers of content, or are we freeing ourselves from limiters of expression?

of synthesis:

What role can the library play within the framework of ownership and consumption? The library's charge remains the same. A place to store books. But it magnifies to involve the way people consume media and the way they transmit and process that information amongst themselves; it becomes a storehouse of ideas, a place of synthesis. Published information become its ward, it becomes the node between the tangible and intangible.

resultant

The following is my original statement of intent, before revision. The text highlighted in red contains ideas that may be flawed. I originally began my thinking on library based on the experience of a middle-class Caucasian in the Midwest, fourth generation citizen. I have not done the research yet into the primary user groups of a library, but I expect my assertions about the education levels of library users may not be what I had initially supposed.

Traditionally, American libraries have served their communities by serving as a place for public self-education. A better educated public created stronger, more stable communities. Today, three interconnected processes are changing society's demands on libraries: the information revolution, industrialization, and the diverging levels of education of American citizens. The typological model of a library now needs to change in order to accomplish the library's main objective, to strengthen its own community.

Libraries of the early twentieth century were geared towards a public that may or may not have a high school education. While the libraries *may* have contained the definitive works on specialized subjects, it was unlikely, and housing such a collection would have made little sense. Library constituents could be challenged by lesser works. Our contemporaries may not be challenged by general fare, but, neither do we expect extreme specialization; we have these resources at our academic institutions. Libraries are no longer expected to function as a resource for self-education in the same manner. Rather, the library should focus its resources around its primary user groups.

The digital revolution also exerts pressure on libraries. Information is available anywhere, anytime, so what use is a library model which functions simply as a storehouse. The information is becoming increasingly virtual and our demands on that information are changing. We want our information *mobile*, yet still tangible. We like to physically interact with it. This is congruent with the old model of library, where books, music, or movies could be checked out. Today's challenge lies

with our concepts of ownership of ideas and information.

Perhaps the biggest concern for a library facing typological change is the industrialization of China and India. Jobs that require a high degree of education but are essentially formulaic are easily outsourced to India's middle-class. We are left with the loss of working class jobs and, increasingly, middle-class jobs. This highlights the possibility for the rise of the creative class. Libraries can programmatically switch their function to cater to the more stable aspects of our economy. Functions can revolve around synthesis of information, group interaction, and developing creative skills.

The essential function behind a library is to strengthen its own community. This used to mean simply providing the basic resources of education in the form of books. Libraries today now needs to serve not only as disseminator of information but as a space for the synthesis of it.

abundance of another sort:

I lived in Las Vegas for two years in my early twenties. My experience there cemented my desire to become an architect and I moved back to North Dakota to resume my education. While living in Las Vegas I was struck by a number of thing; the overuse of water in a desert climate, the overuse of electricity, the overuse of the automobile, the amount of urban sprawl, the continuous reinvention of itself by blowing up buildings and building new ones. While Las Vegas may be a city of excess in many other areas none were as disturbing to me as its denial of energy issues and its obviously unsustainable consumption of resources. Las Vegas has thus been in the back of my mind since I began my architectural education, and was educating me informally before I went back to school.

Las Vegas is a unique beast. It is a snapshot of life with the

contrast cranked up. Other cities are wasteful, but not on such a grand scale, or with such zeal. Las Vegas is one of the very few large cities essentially born post WWII. Its patterns are born of the car. It is a destination city that offers essentially the strip or suburbia, with no middle ground. No density. Either you are involved in hyper-reality or you are involved in suburbia's "reality" of lush green lawns and deciduous trees. Both are false fronts to real life. And it is growing in a way that no city has since the gold rush. Between 1500 and 4000 people move to Las Vegas each month. This is a tremendous pressure on a city laid out for the automobile. This growth comes also at an unfortunate time, when cities are grappling with transportation issues but not yet undertaking solutions. I've always wondered what will occur to suburbia once cars become too expensive to drive as we do today. What will occur to towns occupied by one hour commuters?

Whatever will work in Las Vegas will work in suburbia, anywhere. It becomes a great environment for a typological model because of its genericies. If an idea combating excesses can flourish in Las Vegas, it could work in any other suburban environment

user/client description

The City of Las Vegas will own the building and the general public will use the facilities. Las Vegas currently has around 15 libraries, and the outlying suburbs of Henderson and Summerlin have around ten. The city has three major branches and could use a fourth major branch in the southeast part of town. Further research will better define the user groups.

Investigation will include the number of employees and staff, the number of users, when peak usage occurs and the parking requirements for the city. Investigation will also include the educational level, ethnicity, and socioeconomic stati of the user groups.

major project elements

The investigation of the thesis topic will yield specific elements. The typological shift from traditional library form to a form better suited to today's societal pressures may eliminate some functional spaces and create new ones.

major elements developed from research and data:

Spaces for civic interaction and discourse-others to be developed.

major elements of the existing model:

Reading rooms, space for library stacks, computer clusters, circulation, administrative support space, parking, receiving, gallery space, and used book store.

major landscape elements:

All landscape elements will address the desert climate and water overuse. Whenever possible the landscaping will attempt to passively protect the building.

site information

Las Vegas,
Clark County,
Nevada

site information

The proposed site lies within a city redevelopment area. It also lies where the city has its greatest density, no other nearby library, and in the heart of the oldest part of the city. Further investigation will take place with the site visit, but as I remember, this is also one of the poorer parts of town.

site inventory: historic

Home to indigenous Paiute tribes, the Europeans first discovered the Las Vegas Valley in the 1700's with the aid of Spanish scout, Rafael Rivera. In the 1850's the Mormon leader, Brigham Young, sent missionaries to the area to build a fort for mission work. The fort still persists today. In the late 1800's the railroad passes through; Las Vegas is supported by railroad business for the next 25 years. Farming becomes the next dominant industry and in 1905 Las Vegas became a city. Gaming was legalized in 1911, but it was not until the construction of the Hoover Dam and the influx of the worker population that Las Vegas began to flourish. Nellis Air Force Base was established during WWII and in 1945 the resort hotels and casinos began to appear. In 1960 the population of Las Vegas was around 60,000. This climbed to 160,000 by 1980 but by the mid eighties the city's population began to dramatically increase. In 2000 the population of Las Vegas had increased to 560,000 people and Clark County to 1,700,000. This dramatic rate of growth continues today and recent calculations estimate up to 4,000 new residents arrive in Las Vegas each month. This steady influx makes Las Vegas the fastest growing city in America.

economic

This growth creates a stable economic presence and Las Vegas falls along national averages for poverty levels and employment levels. However, the population includes nearly double the foreign-born percentage of the population. Twenty percent versus the national average of 11%. Lower rates of high school graduation characterize Las Vegas. The percentage of those with a bachelor's degree or above is also much lower than the national average, at only 19% (compared with 27%).

geographic

Climactically arid desert, Las Vegas is cradled at the bottom of Las Vegas Valley between Mt. Charleston, Gass Peak, and Frenchman Mountain. The mountains act to insulate the valley from winds and thus leave the city prone to air pollution problems. Smog obviously sits in the valley, but dust also acts as an air pollutant. Local laws require all construction in the valley to wet down the grounds to avoid kicking too much dust up.

physical

The proposed site sits at the bottom of this valley. The Las Vegas strip lies to the northwest of the site. Surrounding landmarks include Red Rock Canyon, the Valley of Fire National Park, Lake Mead, and the Hoover Dam, as well as the Strip itself.

Las Vegas lies at a latitude of 36 degrees. It has a yearly average of 85% sunshine. Temperatures in the summer range from lows in the mid seventies to highs above 100 degrees. In the winter months, lows range from the mid thirties to the sixty degree range. The prevailing winds come in from the southwest with a mean yearly speed of 9 m.p.h.

Less then five inches of rain falls per year in Las Vegas. The potential exists for flash floods towards the end of summer, and most rain falls during January, February, and August.

This arid climate favors desert vegetation. "Las Vegas" means "the meadows" and at one time underground springs fed the area and harbored wild prairie grasses. Since then the underground aquifer has been depleted and the city now takes its water from Lake Mead. Water flows above and below ground down the valley to the southeast. Soils at the site are McCarran Soils Series with a mix of alluvium of active washes. Las Vegas proper contains these soils and a mix of sandy and gravelly silts. A large limestone outcropping, located to the east of the site, forms Frenchman Mountain. Fault lines and fissures run through the valley and Las Vegas has been home to many earthquakes under a magnitude of M4, eight of a magnitude between M4 and M4.9 and one earthquake over M5 since 1900.

project emphasis

building a piecemeal resistance.

The thesis project will become a place that engages with the rise of technology and diverts it, shapes it, guides it towards an experiential meaning. We must decide in what way we want to live. We can not apply a laissez-faire form of engagement towards the internet. We cannot let "whatever will be" be. It is in the user's power to demand what sort of world he or she would live in. The long run costs of disengagement with the flow of technology dramatically shift our way of living. We need to make conscious choices about our relationships with this technology. Otherwise we are left with that which titillates, but does not inform, and that which does not create meaning.

The library acts as filter, taking from the worlds of excess and deliberately cultivating the quality aspects of those worlds. This metaphor works for both the excess of information on the internet and the excesses of the site, Las Vegas. The library tackles excess as an organism. It functions as a place of order and category. The thesis will tackle the ways in which this order can be utilized to create, to synthesize, and to interact.

Interactions will become a key concept. The thesis project will explore the interactions of public and private spaces, between indoor and outdoor, between reflective, contemplative spaces and public, social spaces, and the linkage between. It will explore the relationships between consumption and analysis of information and the synthesis of that information into a meaningful whole. Finally, it will explore the concept of library as node between real and virtual.

The thesis project will emphasize the experiential qualities of the library, whether users are learning alone or interacting. It will move the concept of library from repository towards forum, while keeping traditional, familiar aspects.

a plan for proceeding

research direction:

Research and analysis will be by a Mixed Method, Quantitative/ Qualitative Approach. A Concurrent Transformative Strategy will be employed. The strategy will be guided by the theoretical premise exploring the relationship between the library and the pressures that the information revolution, industrialization, and the divergent levels of education of American citizens are exacting upon it.

implementation:

Both quantitative and qualitative data will be gathered concurrently, Priority will be assigned by the requirements of theoretical premise. Integration of the data will occur at several stages in the process of the research and will depend on the requirements of the examination of the theoretical premise. Analyzing, interpreting and reporting of the results will occur throughout the research process.

design methodology plan:

Phenomenology will inform the direction of my project. However, I will endeavor to integrate the logical sciences within this framework, to strengthen my thesis, and to create a node between information and experience.

design process documentation:

I will begin sketching my initial concepts. These sketches will be retained for use in the thesis binder. I will build sketch models illustrating the concepts and a final, highly refined physical model. Digital models may be utilized, at my discretion, using the programs of FormZ, SketchUp and Piranesi.

a plan for proceeding week by week

Week of:	
October 31	Case Studies
November 7	At Site: Site Analysis and Further Case Studies
November 14	Research Results and Goals
November 21	Draft of Thesis Program Due
November 28	Program Requirements
December 5	Final Thesis Program Due
December 12	Holiday Break: Continued Individual Research
January 9	Concept Studies
January 16	Concept Studies
January 23	Determination of Design Direction
January 30	Four Week Review with Primary; Site Model
February 6	Plans, Elevations, Sections, etc...
February 13	Graphical Representations of Character of Space and Place
February 20	Construction Assembly
February 27	LEED and Energy Issues
March 6	Mid-Thesis Review
March 13	Further Graphical Representation of Space: Spring Break
March 20	Landscape Response
March 27	Begin Packaging of Final Presentation
April 3	Packaging
April 10	Packaging
April 17	Practice Runs at Presentation- Refine Presentation
April 24	Thesis Projects Due Downtown
May 1	Finish and Refine Thesis Document
	Final Thesis Document Due

previous studio experience

2nd Year

Fall

Milt Yergens

Additive/Subtractive Form
Dwelling Wall/Pavilion
Downtown Fargo Bistro and Culinary Arts Center

Spring

Bakr Aly Ahmed

North Fargo Retirement Community Fitness Center
Church Renovation
NDSU Hotel and Convention Center

3rd Year

Fall

Shannon McDonald

Design Studio
South Fargo Elementary School and Branch Library
NDSU Bus Stop

Spring

Steve Martens

South Fargo Liquid Motion Community Dance and Fitness Center
Masonry Competition: Kasota Quarry Museum and Interpretive Center

4th Year

Fall

Harold Jenkinson

Urban Design Studio

Spring

Don Faulkner

FLADD Highrise Competition: San Francisco SOMA Mixed-Use Highrise
Marvin Windows Competition: NDSU Downtown Campus Addition and Renovation

5th Year

Fall

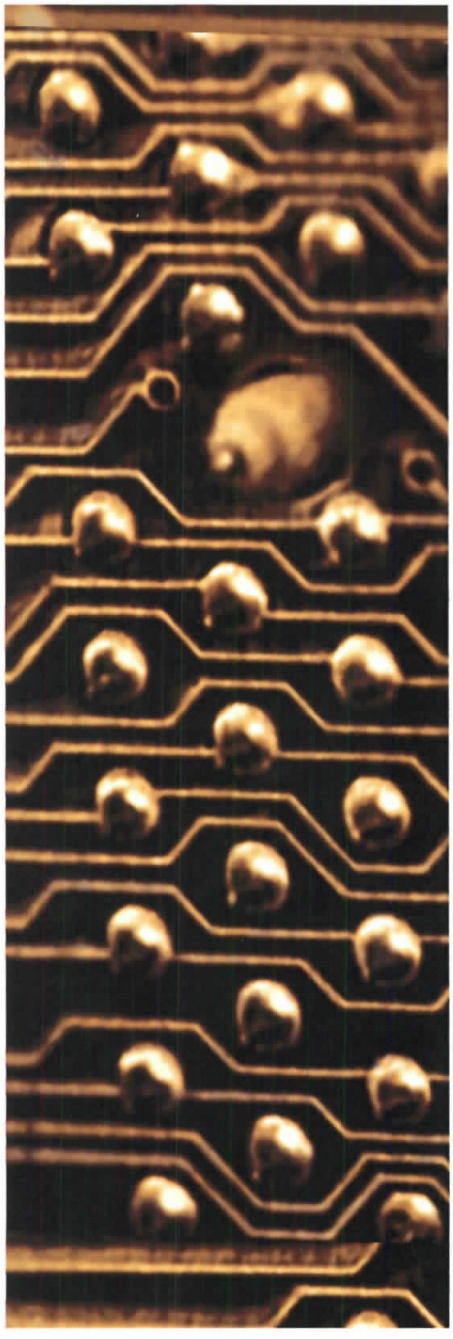
Steve Martens

Fargo City Hall and Winter Gardens

theoretical premise research

theoretical premise research library

introduction



The following paper examines three texts: Martin Heidegger's essay The Question Concerning Technology, *Todd Gitlin's* Media Unlimited, *Daniel Pink's* A Whole New Mind: Moving from the Information Age to the Conceptual Age, *as well as shorter essays by Karsten Harries, Ponty-Merlaut and Alberto Perez-Gomez for their influence upon the theoretical premise.*

The library is a typology in transition. It is grappling with the transformations that technology, and specifically digital media, have wrought in this current era. The omnipresence of visual culture and the transition from an information age to a conceptual age must be examined for the effects they produce on the nature of the library.

To understand the influences that are at work upon the library today we must understand what influences are affecting society at large. The public nature of the Library produces the effect that the form and function of library will change with time, if not for the changing manner of the media than for the changing demands the citizenry place upon it. Most authors today note the difference between the underlying philosophical standpoints of the past and present as a time specified some two or three hundred years ago; The Enlightenment.

The Enlightenment drastically altered Western Civilization's perception of itself, its relationship with government, and its relationship to God. It was a watershed era, in that we can see the effects of it within nearly every discipline today. Born from the Age of Reason, the philosophical

thinking of the day urged the establishment of axiomatic philosophy and absolutism as the underlying foundation for knowledge and stability; this circumvented a faith in personal revelation as the principal source of knowledge and wisdom. In effect the Western World took a hard left turn in its thinking. Thinking became based on reason, upon cause and effect relationships, and hoped to find universal truths of the world in this way.

For the library's part, it was already a storehouse of information, differing laws had governed who had access to the information, but this has essentially been its function. The first libraries in Alexandria were the result of Ptolemy's directive that all entering the city must surrender their written works to be transcribed and returned. The transcriptions became the basis of the largest known library of that time, and for centuries following. This was the collective knowledge of the known world at the time. These works were not fact-checked for accuracy; in fact "considering the source" is only a notion that came into persistence with the Enlightenment. For the period surrounding the Enlightenment up to the present, general information became governed by ideas of authorship and finding the original source. It became an academic endeavor to find the "actual" truth, versus the truth as the individual presented it.

It is out of this objective frame of mind that we live our daily lives and how the library finds itself today. The result of cause and effect, universal truth, and objective insistence is the subdivision of our lives into sometimes meaningless parts. With an objective frame of reference we begin to count quantifiable results. They are measurable

in a way that experience is not. With these results we find things to be more efficient or less, more or less economical, and have misinterpreted these findings as proof that something is better or worse. The efficient closed stack system of large libraries hides books away to be ordered and recalled at a later date. The infringement upon reading space in libraries by ever expanding collections is the result of a view that determines enjoyment to be secondary to the functional aspects of holding books in reserve. The library has become more and more efficient. In a left brain sort of way. The rise of digital information promises an even greater efficiency in the storage and retrieval of information and it is this demand that the library primarily grapples with now. By casting itself as an efficient storehouse of information while devaluing the role of its experiential place, the library has set itself up to be outmoded and outdated.

For a left-brained, objective rationalist *efficiency* is the primal mode of ordering. Libraries should be efficient storers of information. But left-brained is not the whole brain, neither is it how the whole person understands reality. We are not Vulcans, devoid of emotion. Neither should the right-brain aspect of ourselves be seen purely as the emotional. It is also the creative, the expressive, the synthesizer of disparate parts, the part of us that understands irony, that can tell a person is lying just by the expression on their face. It is a necessary half of our existence. It is a neglected and discounted half, also. Feminist scholars may argue that this neglect and disparity is the result of degrading that which is seen as essentially female in favor of what is male as a mode of

control. Regardless of the reasons we are half-people, searching for the rest of ourselves.

Another way of describing the difference between left-brain and right-brain is to rename the left-brain the objective and the right the experiential. Libraries are suffering from the lack of regard we have for their experiential qualities.

Martin Heidegger described this phenomenon more in depth and in different terms. He related this concept to technology. Since the primary factor threatening the existence of the library today is the rise of certain technological forms, it bears exploration into the Heidegger's *The Question Concerning Technology*.

Heidegger said that we must understand the essence of technology, for by wholeheartedly accepting technology in our lives and by writing off technology completely we do equal harm. The essence of technology, as per Heidegger, is an ordering system. Humankind is a part of this system, in general the ones doing the ordering. As part of our nature we demand greater efficiency; it is written into our selves as a survival instinct. As we gain this greater efficiency we create an avenue to place things in "standing reserve." We stop seeing the essence of what we are dealing with and start seeing it in terms of a recallable reserve. Spare parts to be utilized by us, but not things in of themselves.

What is peculiar about the nature of the library is that it exists as a standing reserve, of sorts. Books sit upon shelves waiting to be picked up by patrons seeking their information or entertainment. A book on the shelf is waiting in standing reserve for the reader to read it. Is this

form of standing reserve less of a danger than others? What would a library be without the concept of standing reserve? The experience of the library itself however is something different, more akin to a musician's live performance than digital download. While books can be seen analogous to any other media unit in any other forms -transferable, orderable, transmittable- the experience of being within the library, the sequence of events, and the refuge that it offers are not as easily transformed into standing reserve. The saving grace of the library is that it exists as an experiential place, not merely a place to recall books from shelves at will, but a place to sit, read, contemplate, engage, a place of experience that is increasingly given short shrift by the growing stacks of media.

The concept of library as the storehouse of information has been with us for over two thousand years, at least since the Royal Library of the Ptolemies in Alexandria in 300 BCE. This early date seems far removed from the concept of "modern technology." Moreover, the function of public library moved the library beyond mere storehouse to its most essential aspect of standing reserve. As one writer noted, though the stacks are the permanent feature of a library the books are transitory. Sometimes present, sometimes absent.

The redemptive quality of a library is its function as public place. As public place it is situated to engage the populous in a physical way while providing opportunities for the patrons to interact with each other and knowledge. The spaces it provides must be geared towards creating experience and interaction, solitude and reflection.

Beyond the danger in ignoring the effects and essence of technology, Heidegger says that it is equally dangerous to wholly reject technology and describe it as inherently evil. His answer is to grasp the essence of what it is and work towards the saving power that grows there. I propose an engagement with technology so that we may harness it for experiential gain. Leaving technology to progress upon its way unfettered and unchecked, as we are today, opens up the possibility that we are to become the "challenged forth:" ordered parts, cogs in the wheel. If we are to retain and reclaim our dignity as human beings we must engage with the idea of technology, understand its influence in the dissemination of information and focus upon its value towards our individual pursuits of knowledge.

The availability of the mass of information within the World Wide Web and the prospect that all works may someday be published online, available for access by anyone, anywhere, has called into question the function and purpose of the library. The ability of online text searches offer us unique possibilities: the ability to search digital texts specifically for the information we seek, bypassing the wasteful pursuit of information within texts that do not contain it, and the possibility that information becomes available to conceivably anyone with internet access, the possibility that anyone may bypass censorship and publish their works.

Worst case scenarios tug at our heartstrings: the underprivileged, inner-city child whose own school library is inadequate and who lacks the funds to travel to her city library, yet is able to obtain a worldly education by nature of the

internet. Aside from ignoring the reality that areas unable to afford texts are also likely unable to afford digital equipment, this example fails to acknowledge that most learners do not begin as self-teachers, that we benefit form the teacher as guide towards a deeper understanding and that we will begin to suffer from a decline in social skills as we become more immersed in the digital dimension. Social skills and social interaction are vitally important to human beings. Part of our ensuing sense of loss, ennui, and disconnect is the lack of contact amongst ourselves. Part of our problems with the indecency and callousness and violence that we see in the world today is the conceptualization we have of others as disposable parts, or functional parts (standing reserve) and no longer as other human beings. We have objectified ourselves to the point where we only function in our relationships as tools towards our own acquisition of wealth, power, or social status.

The library becomes an oasis from the objectified person. Interacting digitally with a person tears the humanness of that contact away, leaving digital words and images no different than the rest of the information obtainable online. A physical place of refuge is needed, where we can interact humanly again.

It begins to be clear that what is essential within a library is not the nature of the material, paper-bound or digital, but rather the architecture that embodies it and creates a place within time and space.

Todd Gitlin, self described *Media Sociologist*, explores the effect, processes, and history of visual media. Visual media is arguably the

"But in the face of avoidable violence, disease, inequality, oppression, poisoning, and other global afflictions, it makes sense to worry about the public cost of media bounty, to fear that it distracts from civic obligations, induces complacency and anesthesia, and works to the advantage of oligarchs."

- Gitlin

form of technology that most directly affects and influences our lives today. Gitlin believes we relate to the influx of technology, and more specifically, visual media, in eight ways. He terms them: The Fan, The Content Critic, The Paranoid, The Exhibitionist, The Ironist, The Jammer, The Secessionist, and The Abolitionist. The particulars of each are not important, suffice it to say that we waver between these coping techniques at different points in our day and different times of our lives. We are complex human beings not easily cached into one reaction.

We live within this digital and visual confluence of media types. Unfortunately (*my belief*), we have also become accustomed to the sounds, images, and messages that it continuously produces. The sounds in silence, the absence of visual stimulation, the lack of things to read unsettle us in our daily lives. Though at some points in our day we wish for a reprieve, at others we suffer from the lack of familiarity with the absence of the underlying drone of constant information. We must recognize this influence in our lives if we are to design for the public. To act strictly as secessionists (as Gitlin believed Heidegger does) and abolitionists because we are disconcerted by the idea of the influences of the media around us puts off a public accustomed to it, while, alternately, latching on to the latest trend in a ridiculous state of exhibitionism leaves us lacking in the content of our daily lives. We must strike a balance. The library cannot conform to an idea of total silence. While in our preconceptions and romanticisms of the idea of library we may return to anachronistic ideas of a space of silence, it does not fit within the makeup of our modern being.

theoretical premise research library

The library can follow the cues of classic ideas of enfilade. As in the plan for the Baths at Caracalla which pulse in size; small entryways, larger rooms for baths, smaller transition spaces, the library can become a space of pulsing: pulsing between private and public, between digital and traditional, between silence and sound. Between spaces for the gathering of information and spaces for synthesizing it into knowledge. In this way the library engages us, not as homogenized space, but as place, the differentiation of place. Karsten Harries, onetime chair of the department of philosophy at Yale University, wrote that,

> "Equally well we can speak of the terror of space, for like the homogeneity of endless time that of endless space renders life contingent and insignificant. We demand heterogeneity and boundaries, periods and regions, sacred events and central places which can gather a manifold into a meaningful whole."

Part of engaging with the essence of technology is to recognize the imperfection of our selves. We do not always act to our best interests, nor do we like being told what these best interests are. We live by experience and part of that entails exploration, failure and success, and the testing of our own boundaries. Coming to a full understanding of the essence of technology requires that we also fully understand its component parts.

To offer heterogeneity of experiences proves Harries point that there is no intimacy without distance: how can we accept or desire solitude if we are not presented with the differences, if

"life experience has become an experience in the presence of media"

- Gitlin

we are not asked to choose? There is no solitude without its opposite. The equidistance or plurality of place creates disconcertment.

The function of a public library within any given community is, in essence, a place where all citizens can come and educate themselves, with the result of strengthening that community economically and socially. Given the changing market forces within Western economies, the changing modes of transmission and obtaining information, and the underlying goals of public libraries the library should redefine the nature of the services it provides. Libraries hold psychologically defined functions within communities--of storehouses and guardians of information. This function should be retained but the creation of a space in which citizens can educate themselves in ways meaningful to their own modern lives should also be considered. Former White House speech writer and contributing editor to Wired magazine, Daniel Pink suggested six senses that will be or are in economic demand and suggested that, moving away from extremely rational endeavors, American society begin to focus on the development and acquisition of these soon-to-be-more-marketable skills. He termed them Design, Story, Empathy, Play, Meaning, and Symphony. These skills overlap and can suggest functions of and places within the Library.

1.
Creating function based on the true needs of the community, libraries can offer the manual and digital equipment for self-learners to tackle the technologies of the design trades. Libraries already offer community-service classes for everything from ESL classes to parenting. Meeting spaces are utilized for functions ranging

from teen anime clubs, to early childhood playtime, to International Teen Leadership Council meetings. It is no great stretch to offer spaces and equipment for another type of learning. Design resources can challenge communities to consider the arts as integral parts of a whole life. While justification is given on the basis of providing the resources necessary to compete in contemporary society, the community begins to benefit as it reclaims the visual arts from a rationalist, efficiency-based ideology.

2.
The Library has within it the traces of all stories, existing and yet to be told. It now has the opportunity to become the place of genesis for story; moving beyond simply offering terminals for the digital production and dissemination of stories by creating platforms for the oral traditions. Returning to the ancient Greek and Roman tradition of Forum the Library can offer a public place where theories are tested, knowledge disseminated, students taught and teachers created from students. The public library can become a truly public space, resisting the degradation and dissolution of our public places by creating space for the public to congregate and express.

Within these realms crossover skills of empathy, play, meaning, and symphony begin to take hold. One of the most destructive forces of our time is the distance technology creates between humans. We live our lives in a way broken from true human interaction, from the weight of time, contemplation, and reciprocation. We are takers of information, of services and goods. The public forum creates a place for diverse groups to interact, by chance or by design, a public place

that does not demand the price of admission, meal, or beverage. This place becomes the testing grounds of story but also the learning place of empathy. True human interaction can occur in this place, separate from private, individualized spaces of reading and contemplation. With human interaction comes play. It is within us naturally to interact and enjoy. Enjoyment is seen too often as a commodity to be purchased by means of entertainment or physical goods and less so as something we create within ourselves. The library offers a space, free of charge and expectations.

The Library must grapple with notions of itself, it's nature, and its role in modern society. Once we comprehend its essential nature we can design to that end. Storage of media becomes secondary to the experiential qualities present within the Library. The library becomes the ultimate Public space, allowing everyone access for whatever purpose they seek.

case studies

seattle central library

university library, utrecht

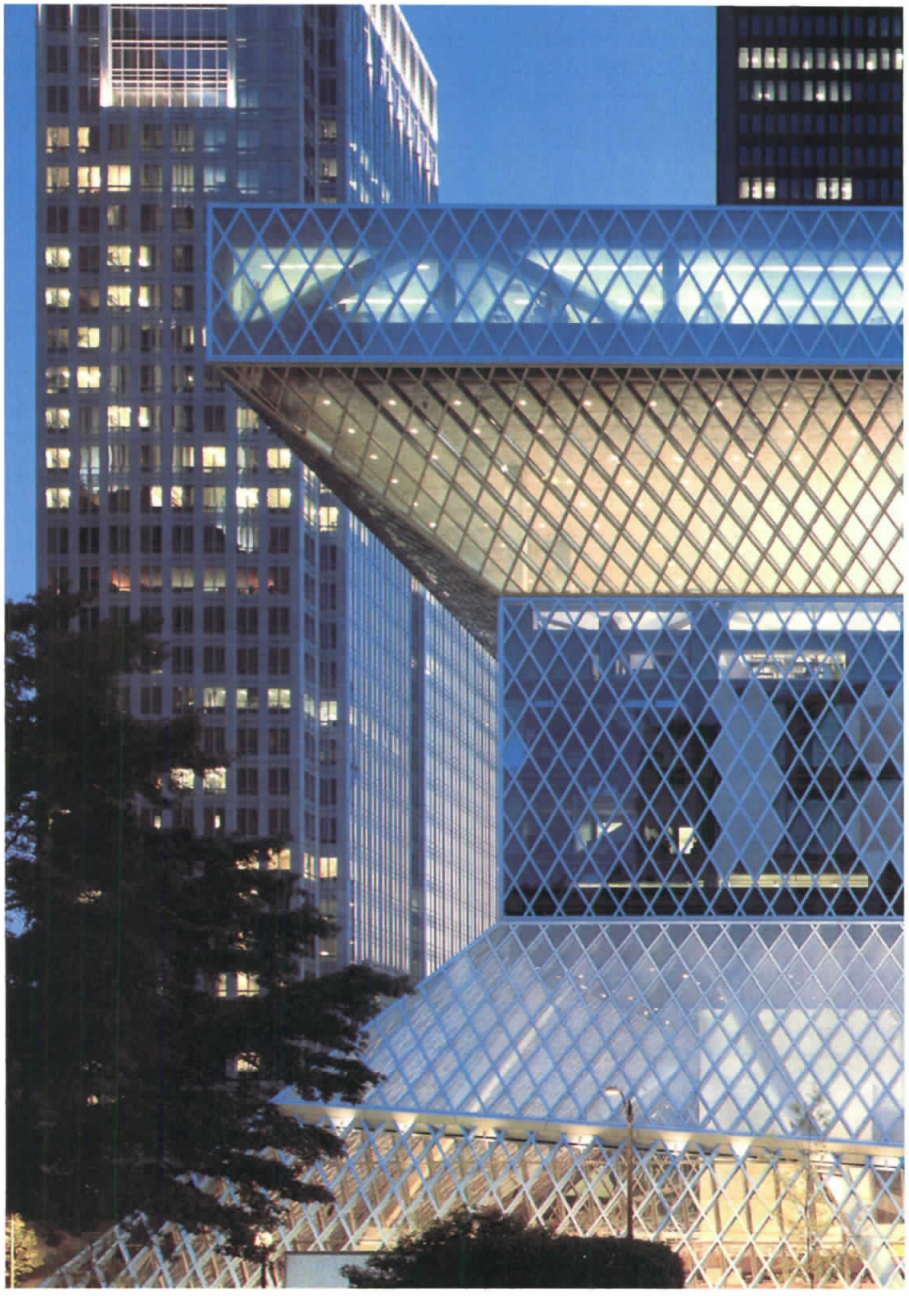
sahara west library

university library, delft

ikmz btu cottbus

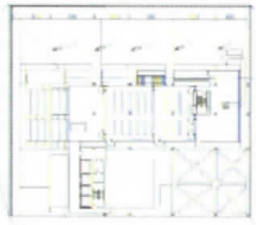
seattle central library

exterior view

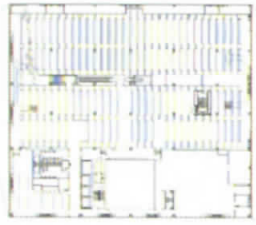


(A + U, January 2005)

seattle central library

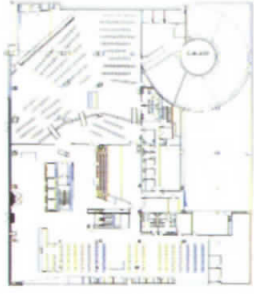


Plan 10, reading room／平面図10, 閲覧室階



Plan 7, book spiral／平面図7, ブック・スパイラル

Plan 4, meeting room／平面図4, 会議室階



Plan 1, kids／平面図1, 児童書階

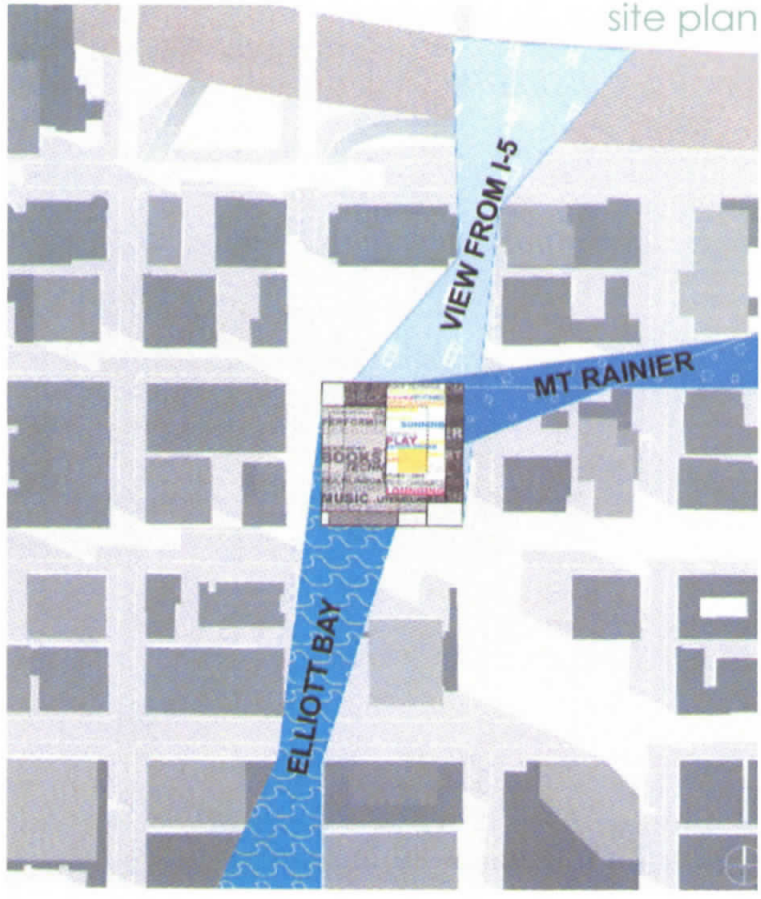
Name: *Seattle Central Library*
Location: *1000 Fourth Avenue*
Seattle, Washington 98104
Typology: *Public Library*
Architects: *OMA and LMN*

summary:

Began in 1999 and completed in 2004 the 412,000 square foot Seattle Central Library defines a new vision of the library. According to OMA's web page

> "Its (*the Library's*) insistence on one kind of literacy has blinded it to other emerging forms that increasingly dominate our culture, especially the huge efficiencies (and pleasures) of visual intelligence. New libraries don't reinvent or even modernize the traditional institution; they merely package it in a new way" (OMA, 2005).

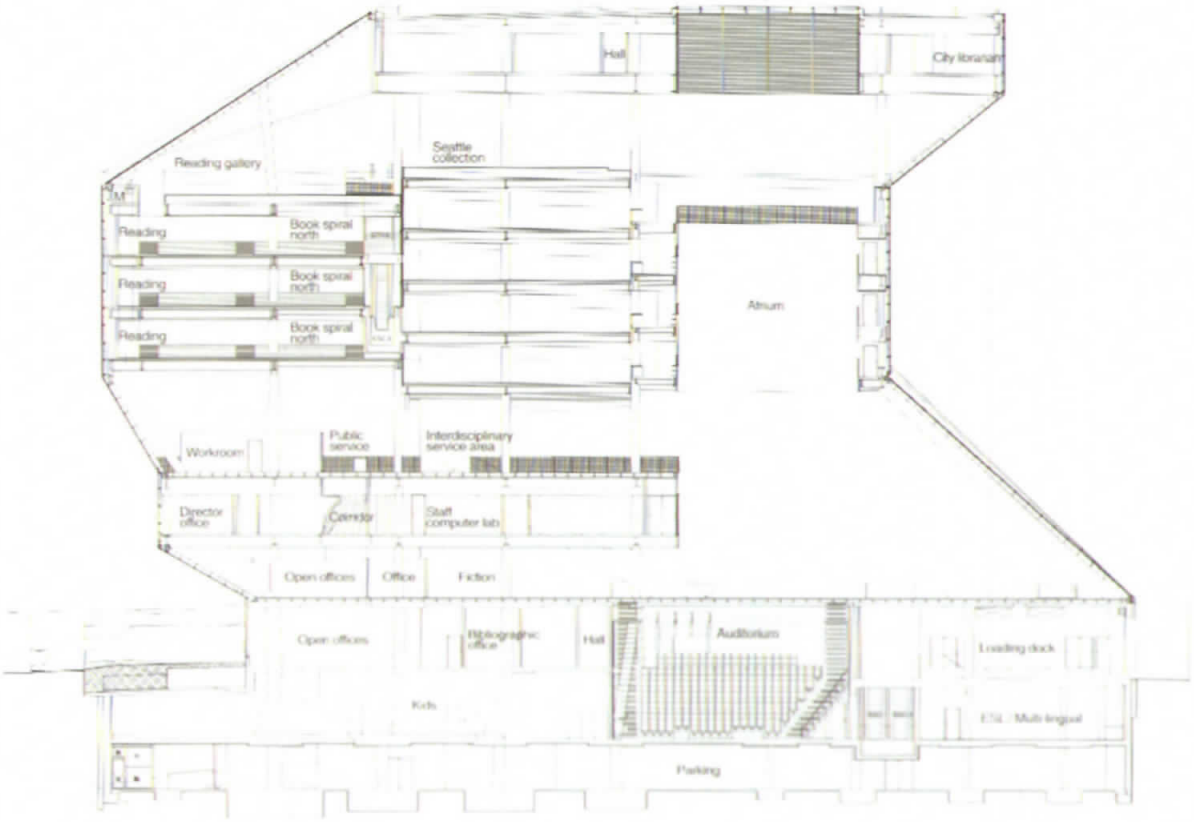
site plan



(A + U, January 2005)

seattle central library

north-south section



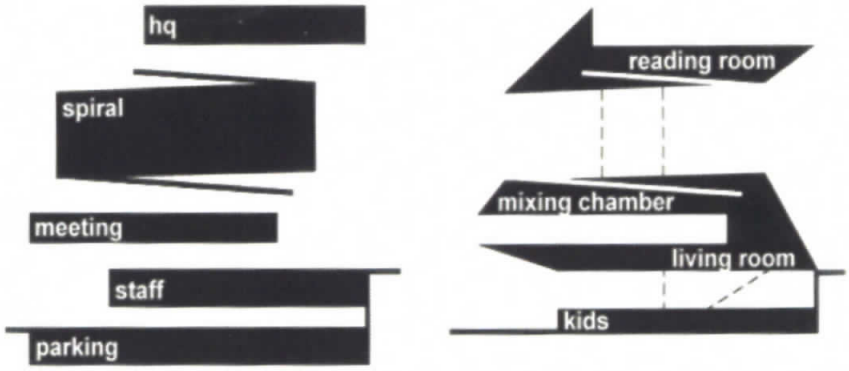
(A + U, January 2005)

The Office for Metropolitan Architecture took it upon itself to redefine the program of the library, updating the typology.

Given the confluence of computer media, a library in Seattle could not avoid tackling the relationship between technology and library; between the public realm, and the increasing privatization of that realm. According to Anna Klingmann in March Issue of *Detail*, Koolhaas reacts to the encroachment on public space by treating the Seattle Central Library as if it were composed of the elements of the city. Bringing the elements of city indoors (streets, plazas, and buildings) Koolhaas orchestrates the experiences of the public moving within. Klingmann pronounces "by comprehending the shopping mall as a paradigmatic building type of the privatized city, he matches its strategic organization and atmospheric characteristics to the library" (Klingmann, 2005,256). Analogizing such a hallowed institution as library to shopping mall seems heretical. She clarifies that like the typology of shopping-mall the Seattle public

seattle central library

Library is both detached from its location and self-sufficient. "The project possesses a strong symbolic dimension, since it shows a new understanding of its context: as an experience that has been turned into a commodity and that is matched to the needs of various user groups" (Klingmann, 2005).



this figure shows the interplay between platforms and mixing zones

relationships:

analysis:

Although it may not have been its intention reference "shopping-mall," OMA did take a different approach to the program of the library. Joshua Ramus, Partner-in-Charge for OMA, describes the process for creating the program in the March 2005 issue of *Detail*.

The first step was to analyze the programmatic functions and identify them as either functions subject to unpredictable growth or stable elements. One of the key problems of the library *as is* was the sporadic and unpredictable growth of certain literary or digital materials. This growth caused storage problems. As certain sections grow they force a discontinuity in storage or the storage spills out into other designated areas, like reading rooms. The Seattle library separated its unstable and stable growth elements; the second step in the programming process. After these functions were separated the library was divided into a series of experiences, fluctuating between stable and unstable, between

In the Seattle library all shelves are arranged on a four story spiral

seattle central library

path. The shelves follow the Dewey Decimal System, and are currently half-full, allowing the library to double its collection before it will ever need to add more shelving. Since the possibility of specialized sections have been eliminated all librarians are now concentrated on one level, known as The Mixing Chamber. Here, librarians, the experts of interdisciplinary research, and all multimedia information sources converge. The children's' section resides on the ground floor over underground parking, followed by the staff area, and on top of that, a "living room." The living room consists of a café, lecture hall, some offices, and a reading area. Above this are the meeting rooms, followed by mixing chamber and book spiral. Topping this is the reading room with a section for a private-sector headquarters, located on the top floor. The library becomes a series of experiences, differentiating itself from the traditional, unsegregated hall format.

"Technology is not a threat, but it enables the realization of ancient ambitions--totality, completeness, dissemination, accessibility. In any case the anticipation of a looming conflict between a the real and the virtual is moot at a moment where the two can be made to coincide and to become each other's mirror image" (OMA, 2000).

case studies

university library
utrecht, netherlands

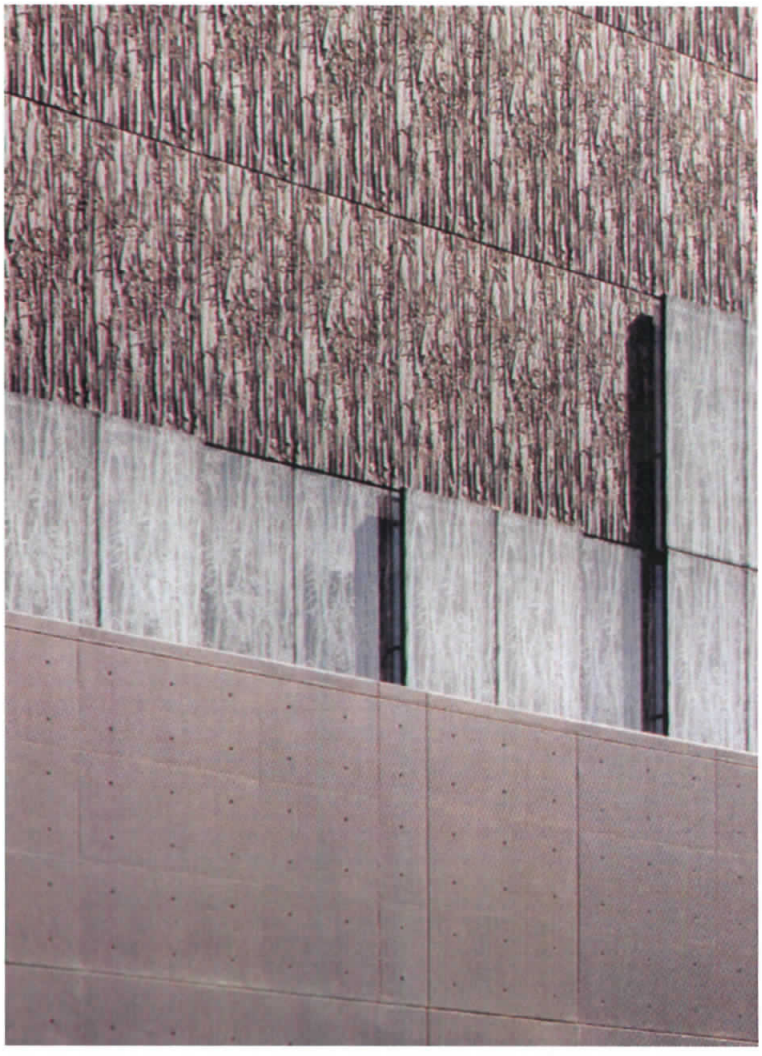
interior view

university library, utrecht

Name:	*University Library, Utrecht*
Location:	*Heidelberglaan 3*
	Utrecht, the Netherlands
Typology:	*University Library*
Architects:	*Wiel Arets Architect & Associates*

summary:

The University Library in Utrecht is the largest library in the Netherlands. It holds 4.2 million books, six shops, one auditorium, and an espresso bar. The building is 36,250 m² in area (or roughly 400,000 square feet) and has an attached parking garage consisting of 450 parking spaces.



exterior patterning

university library, utrecht

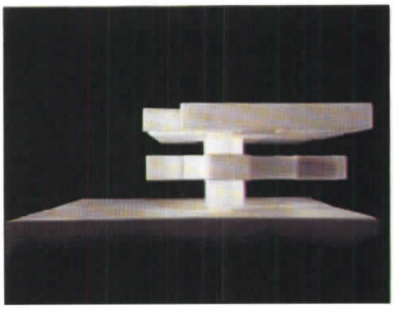
analysis:

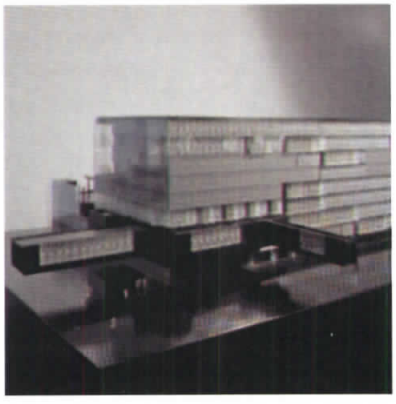
While researching this project, architect Wiel Arets visited a variety of library environments. Newer, more modern libraries relied on striking color schemes in order to convey an air of excitement and relevance. Arets found that, in old libraries, little light was allowed in. Protecting books from damaging ultraviolet light was the practical reason for this, but the dim light had the additional consequence of creating contemplative environments. Books no longer require such a degree of protection but Arets wanted to draw upon this aspect of light quality, contrasting the din of contemplative spaces with light filled interactive spaces. A high level of light filters in through screen-printed glazed facades. In this way Arets creates a vocabulary of black contemplative spaces and white logistical centers and pathways.

interior view:

(Detail)

university library, utrecht

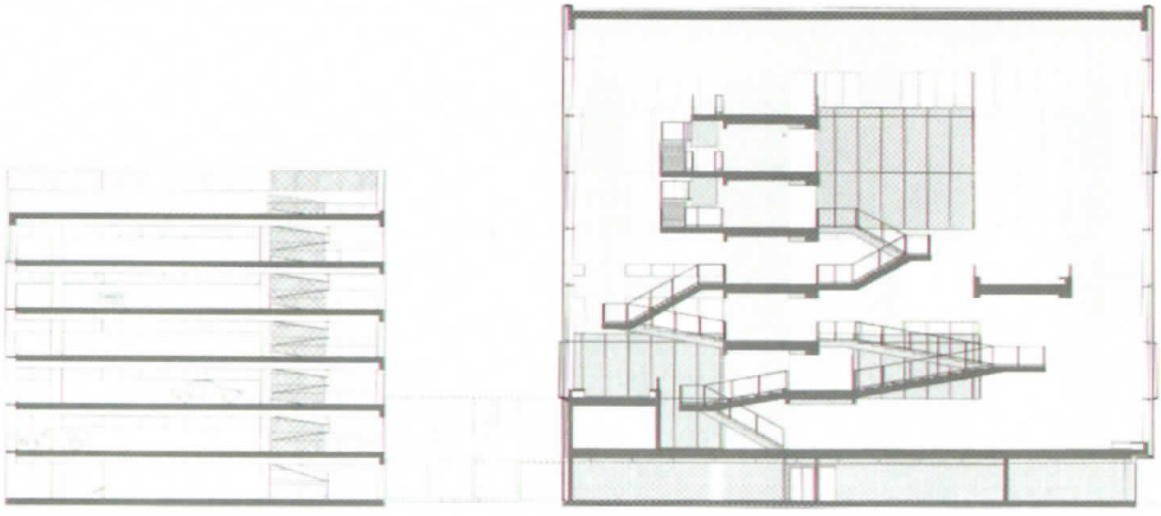




Arets housed the book stores and administrative offices in large massings that read has dark clouds from the exterior. Although the "clouds" read from the outside, they are not a driving metaphor, rather by-product or an aside. The idea came while Arets and his son were flying in a plane. His son wondered how the planes could fly through such heavy clouds. The clouds become a way of delineating space in order to avoid the incoherence of nine separate floors.

Perhaps the most striking feature of the Utrecht library is the willow pattern screen-printed on the glazed facades and cast into the black concrete panels. These patterns give the entire building a textuality and human dimension that would be missing if the architect had instead chosen to create blocks of space and glazing. Some have analogized the pattern to papyrus, but Arets had only wanted to create a sun-screening device that recalled shadows cast by trees.

university library, utrecht

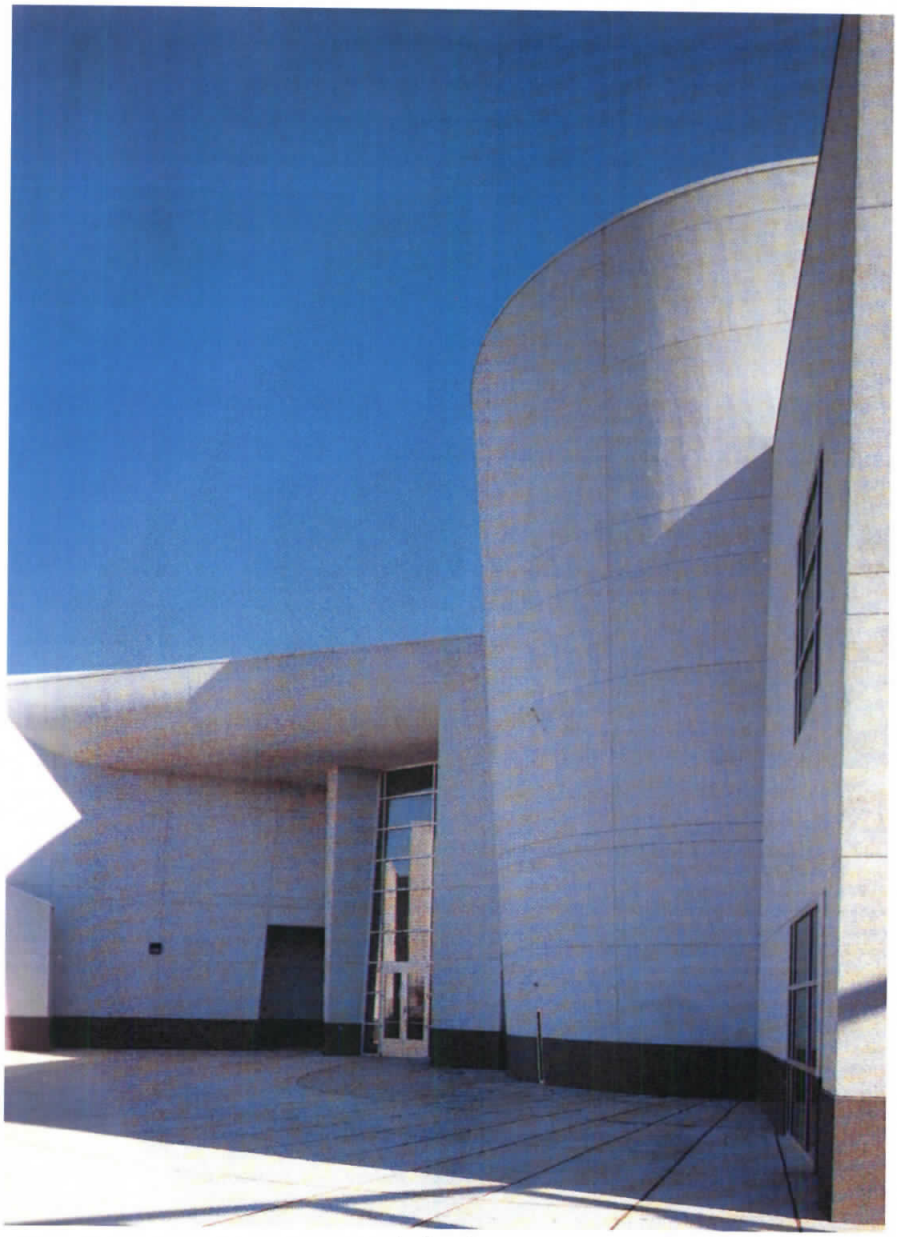


cross section • scale: 1/400

This section shows the relationship between parking garage and library. It also shows the grand stairway, a feature in nearly all the libraries featured within this report. Arets plays with mass and void in a similar way to Herzog & de Meuron's Cottbus Library. Sections overlap and overlook other areas, creating multi-level reading areas and semi-private zones.

case studies

sahara west library and fine arts museum



exterior view

sahara west library

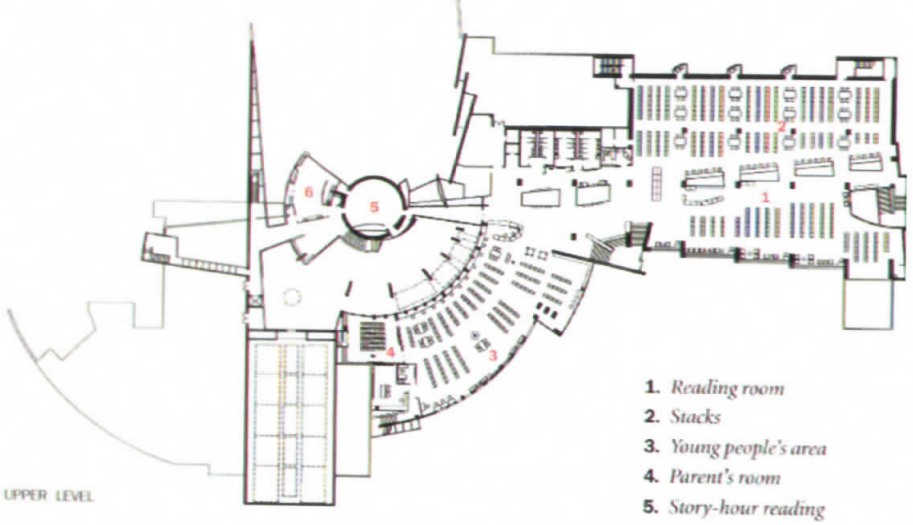
Name:	*Sahara West Library and Fine Arts Museum*
Location:	*9600 West Sahara Ave Las Vegas, Nevada 89117*
Typology:	*Public Library*
Architects:	*Meyer, Scherer & Rockcastle*

summary:

Completed in 1997 the Sahara West Library resides on the north-western most part of the city. Along with the library it houses a fine arts museum, gift shop, visiting artist studio, used book store, and board room. The 122,000 sq. ft. building hides its parking in the rear along tree lined rows of rock gardens. Architect Jeff Scherer designed the library working in conjunction with Garth Rockcastle, who designed the museum portion.

analysis:

The Sahara West Library is one of the last in a series of libraries created under the vision of former Las Vegas public library director, Charles Hunsberger. Hunsberger's concept was to create a series of branch libraries melded with some community, cultural feature that would function as the center of the communities growing around them. This system was to supplant the large, city library concept. Las Vegas libraries are now connected to everything from children's museums to performance centers. The Sahara West Library connects to the Las Vegas Fine Arts Museum.

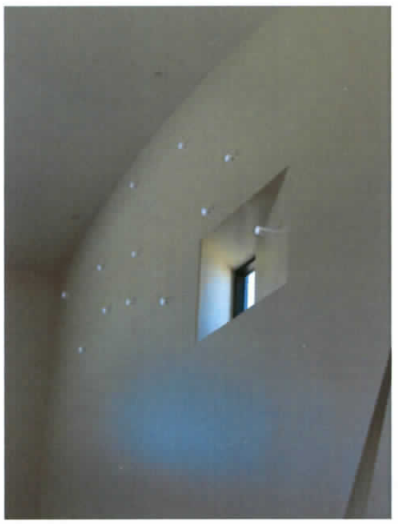


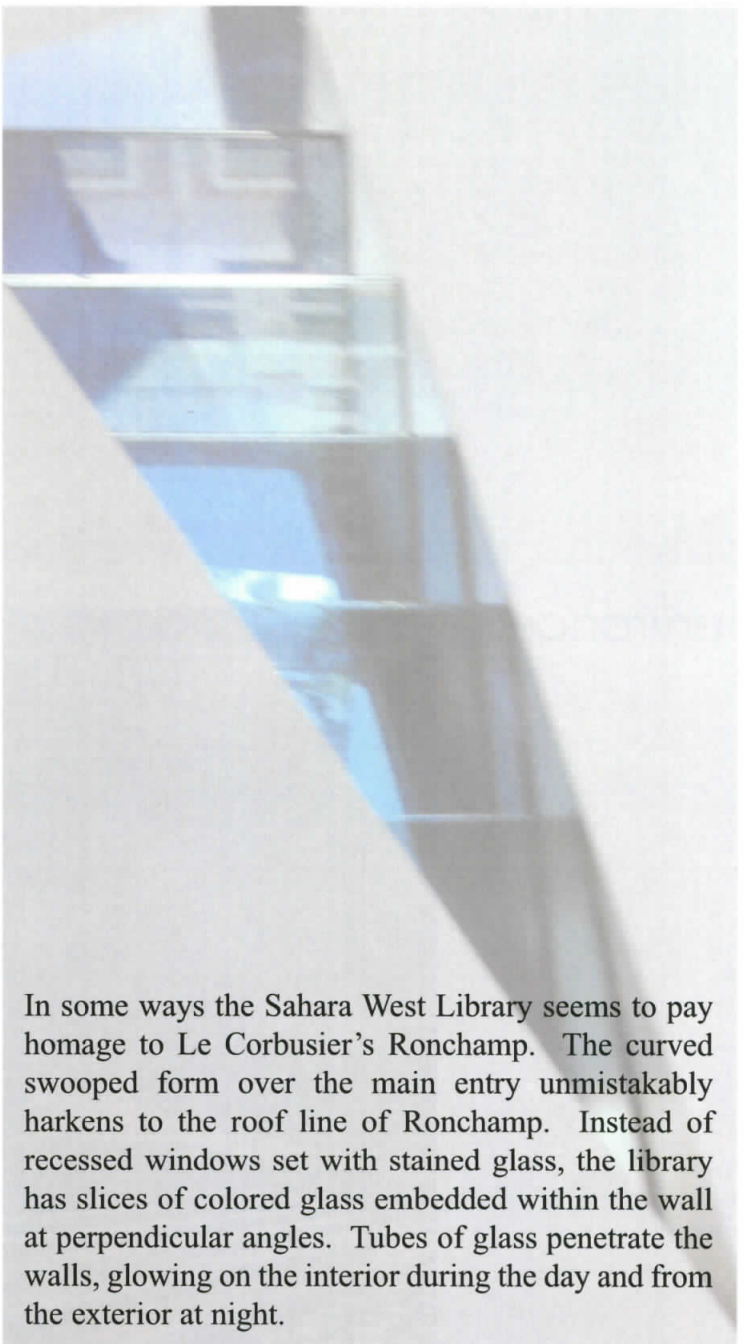
sahara west library

Though the library tries to address the street by hiding its parking, the distance between building and sidewalk combined with the busy thoroughfare of West Sahara enframe the building as object, versus place. The intention of the Las Vegas libraries may be to act as heart of a community but this library does not address pedestrians. The automobile takes supremacy. The parking lot encompasses more of the site than does the building, fanning out towards the residences behind the library. The plaza at the main entry is a wide swath of concrete sidewalk speckled with a few trees, but without any discernible function beyond pedantic threshold.

MS &R paid attention to the arid climate. Desert plants and xeriscaping surround the building, and a landscape feature at the end of the parking lot pays homage to the processes of flash floods. Solar shading devises are located on the south windows and skylights cutting through the roof of the building have shadings preventing direct light from entering. Thick concrete and granite walls provide thermal barriers to the transfer of heat.

sahara west library



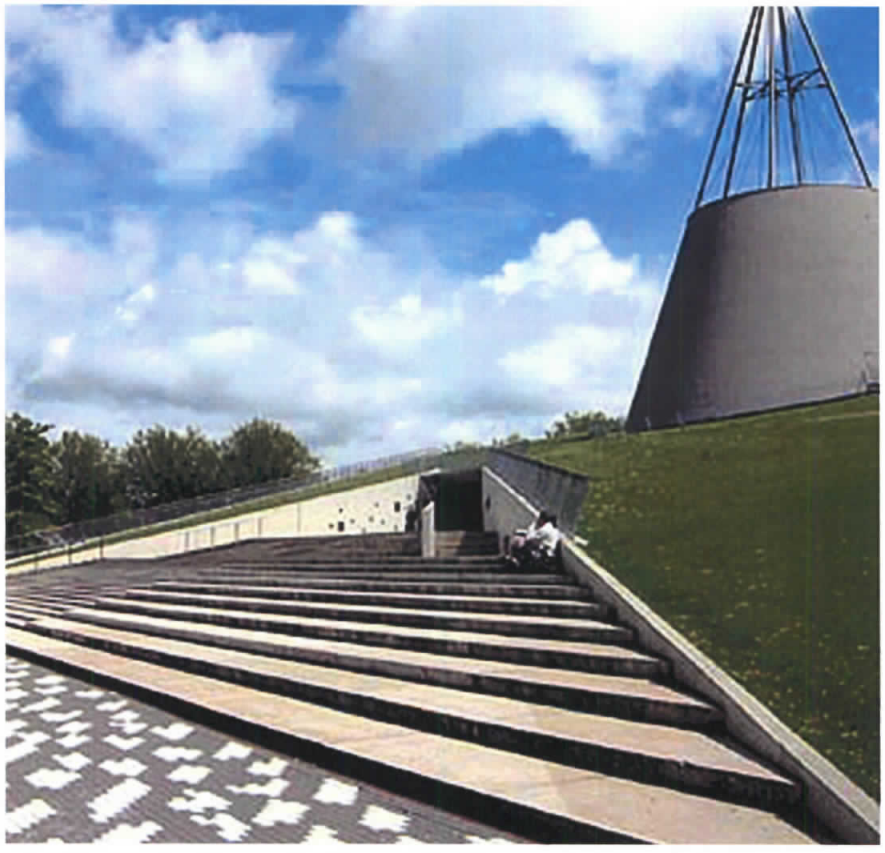


In some ways the Sahara West Library seems to pay homage to Le Corbusier's Ronchamp. The curved swooped form over the main entry unmistakably harkens to the roof line of Ronchamp. Instead of recessed windows set with stained glass, the library has slices of colored glass embedded within the wall at perpendicular angles. Tubes of glass penetrate the walls, glowing on the interior during the day and from the exterior at night.

university library, delft

case studies

entrance:

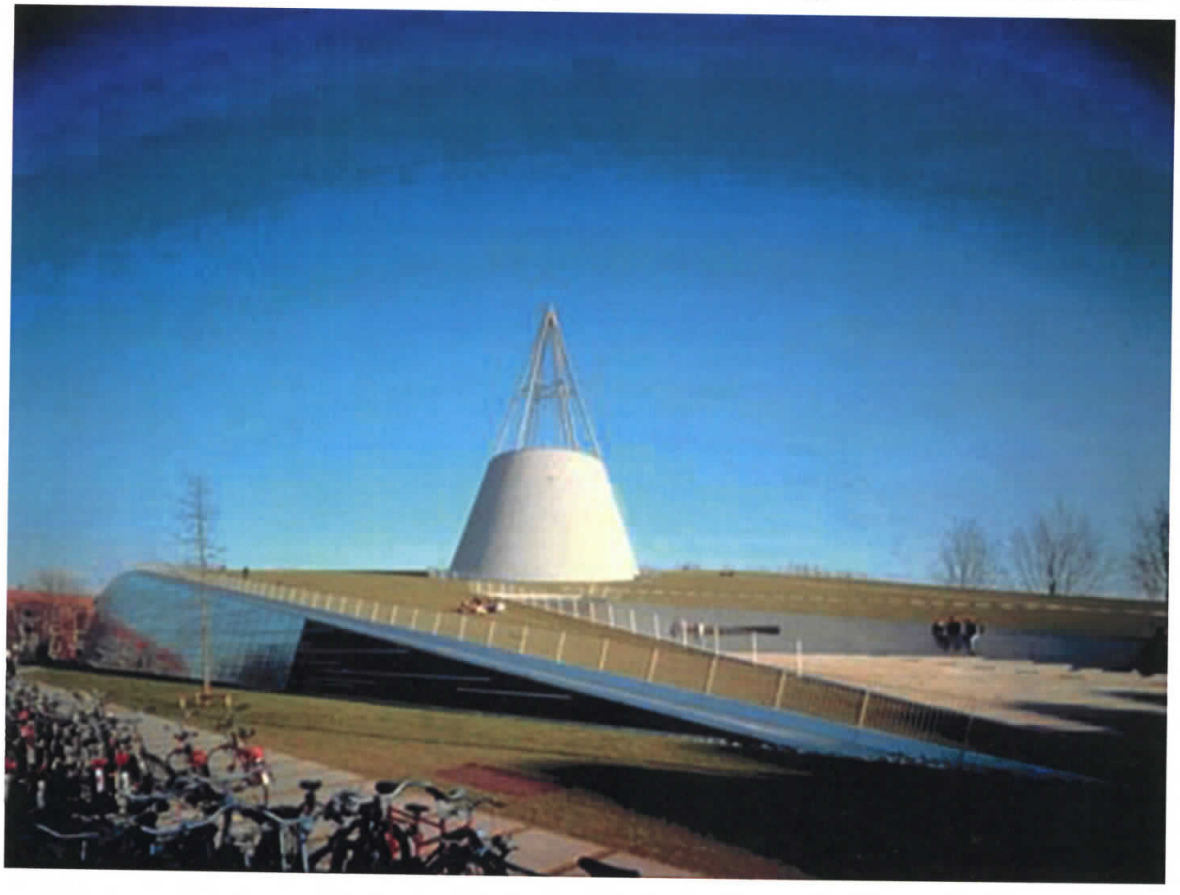


university library, delft

Name:	*University library in Delft*
Location:	*Prometheusplein 1*
	Delft, Netherlands
Typology:	*University Library*
Architects:	*Mecanoo Architects*

summary:

Built between 1996 and 1998, the new library at Delft University of Technology had an important mission: soften the campus by playing counter to the largely brutalist architecture of the rest of the campus. Mecanoo Architects did this by creating a library covered largely by a green roof. The 15,000 m² (ft²) houses a coffee shop, book store, and over 200,000 books and journals. Over 1000 study spaces are available, 300 with computer terminals. The library functions as the national library for technical and natural sciences and utilizes sustainable technology to control its energy loads and environment.



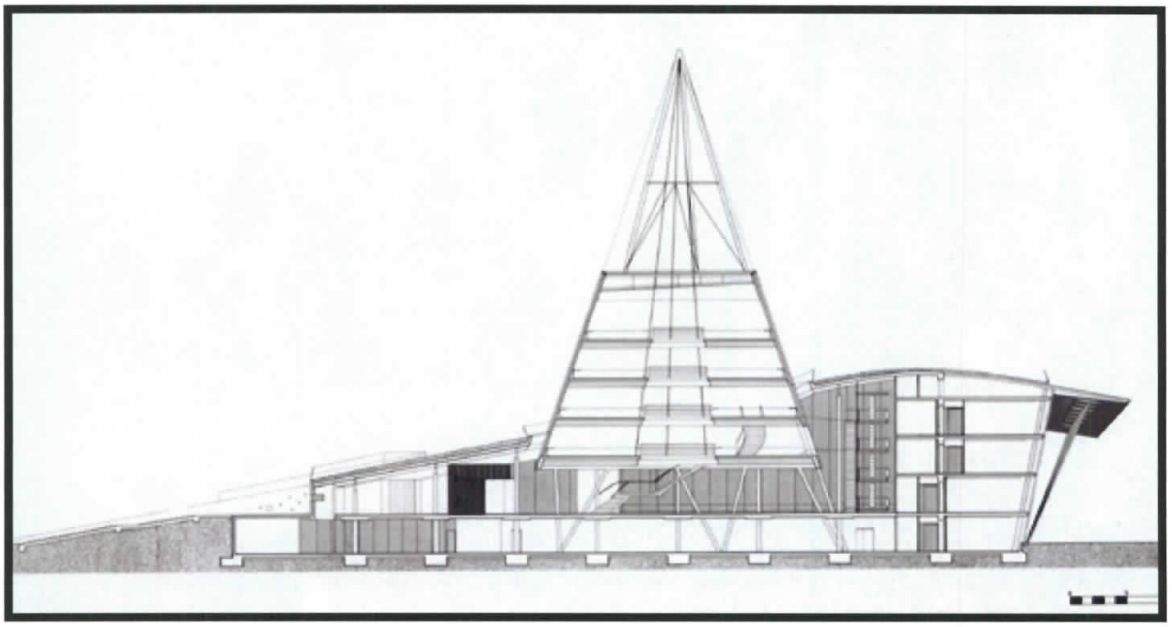
university library, delft

analysis:

The lawn in the center of campus peals up at the end to cover the library's roof. This provided the outdoor space students needed and created more of a campus atmosphere. Piercing the center of the library is a helical cone that penetrates through the floors of the library. Light from above washes down the inside and outside of the cone, allowing natural light into the reading areas.

view to light washed cone, open shelves in background

section through conical protuberance



university library, delft

open v closed

Unlike American libraries which store their books on open shelves, many of Europe's libraries are formulated around compact storage and assisted retrieval systems. The Delft library stores over half of its book in the basement, utilizing open shelving for only the most recently published works and journals, nearly 80,000 works. The bookshelves rise in a four-story wall of books, which reads as a giant steel framed bookshelf accessible by stairway and catwalk.

"A library recalls the image of endless rows of books in cases reaching up to the ceiling. A modern library however is served by computers, books are stored in basements. It is a building where technique is displayed. In this way the programm was formulated" (Mecanoo, 2005).

The Delft library employs geothermal energy to cool and heat the building. By utilizing this technology the library avoids having to expose mechanical units on the green roof. The roof further reduces cooling loads through transpiration in the summer. Finally, a double-skin wall graces the glazed facades

ikmz btu cottbus

case studies

information, communication and media centre

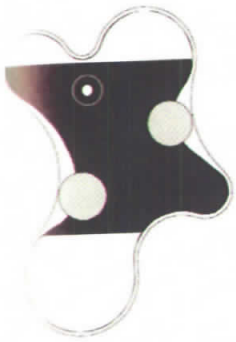
ikmz btu cottbus

Name:	*IKMZ BTU Cottbus*
Location:	*03044 Cottbus*
	Cottbus, Germany
Typology:	*University Library*
Architects:	*Herzog & de Meuron*

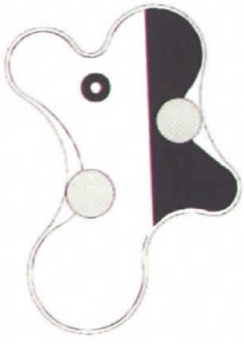
summary:

IKMZ BTU Cottbus was completed in 2004. It began as a competition which Herzog and de Meuron eventually won. The building has a floor area of 12,776 m² (….sf). It has the capacity to hold 850,000 books and magazines, over half of which will be available in open stores. The building also houses the university computer center and multimedia facilities.

ikmz btu cottbus



Herzog & de Meuron claim that rather than a random form, the building's shape was carefully considered. The flow between spaces set up sequences of movements, deriving the overall building shape. The architects created views from the main entrance and from downtown towards the building to be separate experiences. IKMZ BTU Cottbus reads as a monolithic body embedded in the park, when viewed from the main campus entry. From downtown it reads as a slender tower. Thus, the building projects itself as different forms from different views.



ikmz btu cottbus

analysis:

Within the building the floors are cut back to differing extents and these gaps are visible from the exterior. This creates a tension in what appears to be an unbroken, sinuous façade. These gaps allowed the architects to play with space, creating larger reading room volumes, and smaller, private vestibules. The building employs a double skin wall, screen-printed on both sides with overlapping and undecipherable texts. A large, spiral staircase funs the height of the building. It is six feet wide, allowing patrons to pause and overlook areas, or carry on conversations.

typological summary: case studies

public space

The Seattle Central Library was the most successful and innovative of the case studies. OMA analytically questioned the existing program and relationships within a library and came up with a radically different typology that became an experiential process of movement. Fighting the denigration of public space, OMA brought the city indoors: pathways became streets, reading rooms became public yards, librarians and information centers became the storefronts, directly interacting with the public. The University Library at Delft also attacked the issue of public space, forming a college commons on its green roof. Users still have the opportunity to lounge about, but on a less-defined open plane. As green space this is less successful for the lack of clearly defined areas and progression. The angle of the roof also limits the possibility that the green space will be used as other wide open spaces are used: football, Frisbee, the informal games of college life require level playing fields. Neither The University Library at Utrecht nor the IKMZ BTU at Cottbus addressed public space at all. The Sahara West Public Library failed to address creating public space on its grounds or at the entry. The grounds are landscaped and the entry has a scattering of trees, but these do not invite lingering or interaction. They are only vistas at most.

I did not address the issue of public space directly in my theoretical premise but I believe it to be an important issue. A civic building should incorporate the idea of public space within it or on its grounds. This further separates it from the private realm and the transitory. I believe that our civic buildings should be treated reverently, and should express that quality in of themselves. If these are to be our highest institutions of law and learning then, as their designers, we must elevate them to that level. Public grounds can signify a change in status: from residential or commercial surroundings to a place of great significance.

typological summary:

stacks

Traditional European libraries and some large libraries in the United States hold much if not all of their books in closed stack storage. This storage system requires the retrieval of books by librarian or someone other than the patron. In many libraries the older tomes or those books used most infrequently are stored in the closed stacks, which are kept in storage facilities controlled for light and humidity. In the United States we are more used to our public libraries holding books and media in open stacks. I believe this to be the correct approach for a public library in a country concerned with privacy and freedom of information. In addition, ordering books from a closed system takes time. We are increasingly being geared towards immediacy and a readiness of information and libraries are already competing with that pressure.

The University Library at Delft and the IKMZ BTU at Cottbus both utilized closed stacks for part of their storage system, storing more recent publications on open shelves. Mecanoo Architects recognized the influence of the smell, sight, and feel of books present. They created a four-story book shelf at Delft, showcasing the books as an architectural element, probably even more so than Koolhaas' book spiral at Seattle. In all other cases the book shelving was treated ordinarily and secondarily to that of interior and exterior architectural elements.

historical context

library historical context

the long shot:

Written records do not survive from the earliest libraries- many burned down or were sacked as conquering armies destroyed their vanquished predecessors, some fell only due to neglect. Very few original texts survive from the ancient libraries. More is known about medieval libraries, both in form and content. In all cases the form of libraries were driven by the available technologies and the content marked the value of knowledge in each respective society.

prestige:

The ancient library of the Ptolemies in Alexandria and China's ancient library near Tunhwang both shelved scrolls and were testimonies to the prestige of their respective civilizations. The medieval monastic libraries recast knowledge as the property and responsibility of the monastic community, with specific deference to religious work. The libraries of European monarchy attested the prestige of the individual monarch. In all cases the knowledge contained in these libraries was viewed as power or the symbol of power and was greatly valued.

technology:

What is important to note about the long history of the library is that the changing and evolving form of the library was due to the technological advances of each successive age. Libraries drifted between functioning as storehouses to reading rooms to display cases for the written word. But each of these changes was marked by an advance in technology. Storage evolved from casework designed to hold scrolls to fixed benches with books chained to prevent theft. As printing presses were invented books were no longer as expensive, freeing them to be held upon shelves. Lighting technologies also determined the organization of libraries as well as the hours of operation. The advent of electricity allowed

library historical context

the economization of space for shelving and reading areas were free to be situated anywhere.

recent events:

The library loses its relevance in a digital age when it defines itself as merely storehouse of information. This is becoming the main challenge to the form and purpose of libraries today. Eventually we will be able to search published texts for information online. This will be a more efficient way of researching for an increasingly busy public. We may loose the insight of chance happening-upon from random browsing, but a busy public will sacrifice this for efficiency.

Fortunately, a library holds a physical presence in our lives as an institution of learning, and psychologically as a gateway for anyone towards self-improvement. It isn't a concept the public will readily cast aside. What is the essence of what we look for and romanticize about in the library? Is it the getaway spots designed for complete absorption? The silence? The smell of old books? These aspects need to addressed, not merely cast aside in the face of the future.

It is for these conflicting inclinations that the public library needs to be redefined.

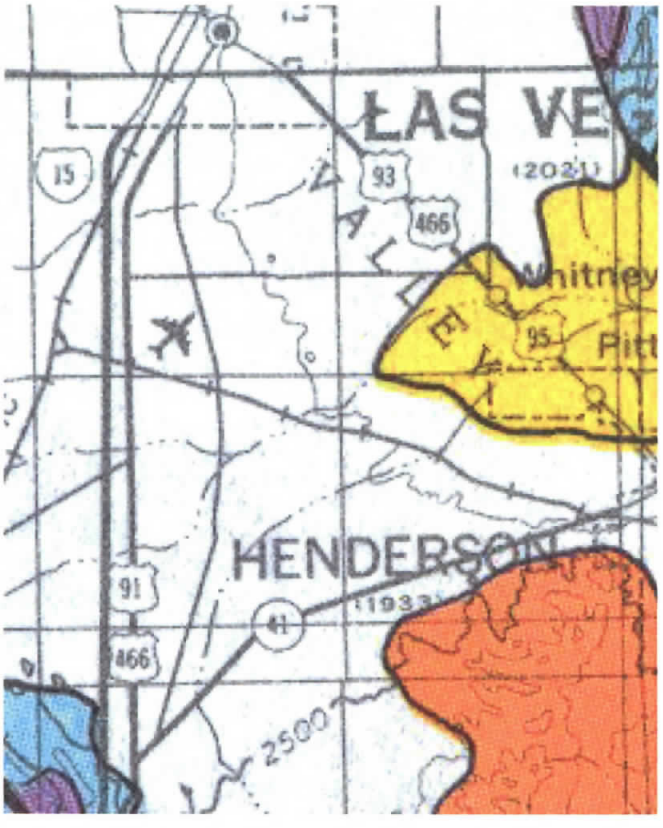
Taking some cues from the Rem Koolhaas's Seattle Library, which focused on reshaping the library as a series of experiences, the new Las Vegas Library will create a series of experiences revolving around and inside a public place. Koolhaas cast his library as a public experience similar to the institution of shopping mall or the experience of walking along an old city. All functions could be accessed along a pathway like separate shops. The Las Vegas Library will find its own direction, focusing on aspects of learning and the ways they are separated and synthesized.

quantitative aspects

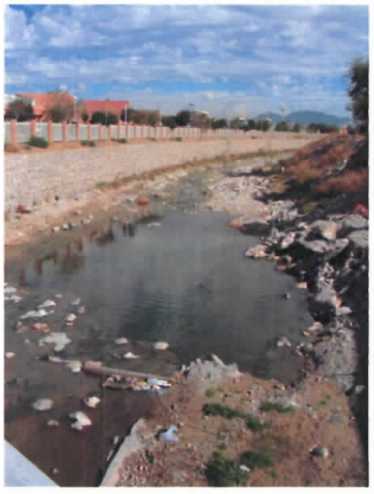
soils

Soils at the intersection of the Tropicana and Flamingo Washes are a mix of McCarran Soil Series, Older Alluvium, Mixed Alluvium, and Alluvium of Active Washes, though primarily the later. These soil series are all forms of organic and non-plastic silt.

The washes in Las Vegas pick up flash flood waters during the rare heavy rains to the basin. The Tropicana Wash was once one of the major washes in the basin, though it has been partially diverted in recent years and no longer functions as such. It meets up with the Flamingo Wash north-east of the center of the site. The Flamingo Wash then drains into the Las Vegas Wash two miles downstream. The Las Vegas Wash empties into Lake Mead.



quantitative aspects water table



The water table in the area around the site is usually located at about eight to nine feet below the surface. The median daily discharge of the wash is about eight cubic feet per second, though in heavy flash floods, such as the record breaking flood of 1994, this discharge has reached volumes of 2000 cubic feet per second. Volatile Organic Compounds, gasoline, and petroleum hydrocarbons are known to be present in the ground water. Buildings that pump out groundwater for underground parking facilities, and the like, need to filter the removed water before returning it to the city washes.

liquefaction

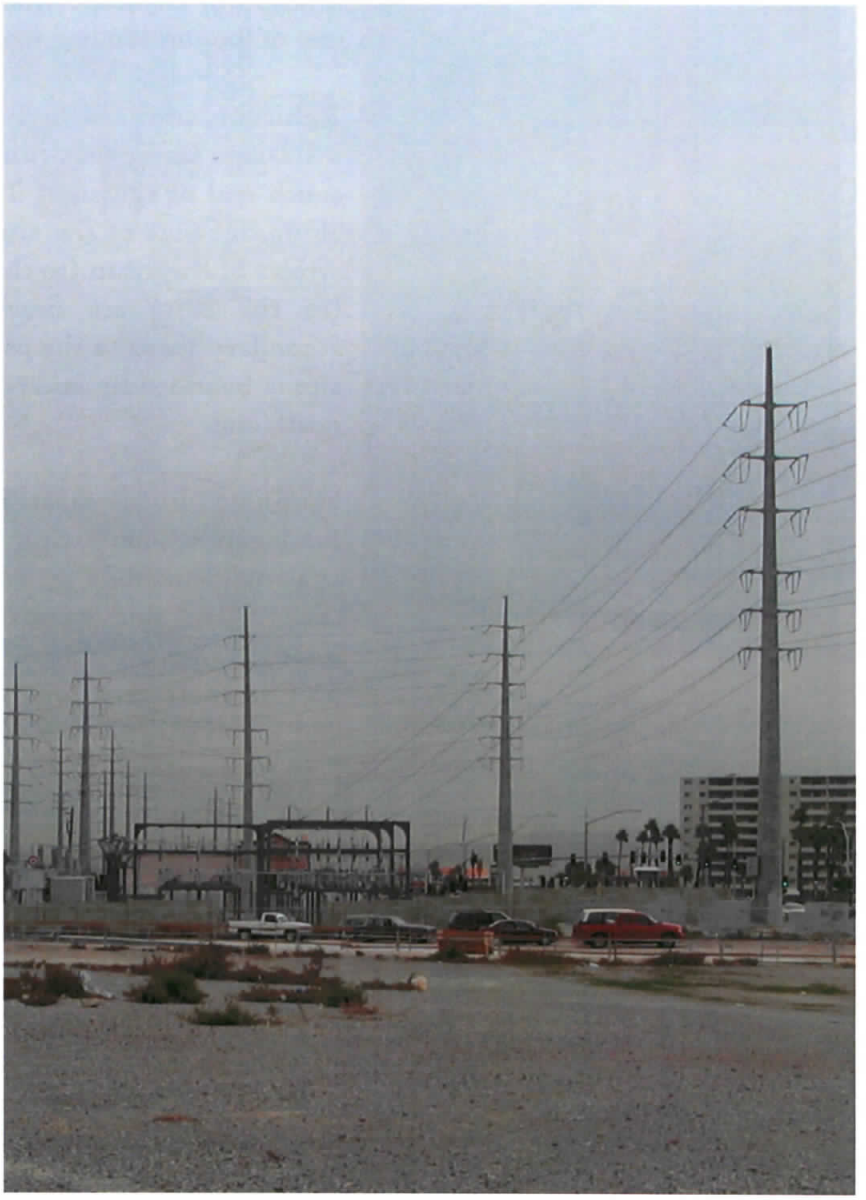
Nevada is the third most seismically active state in the US, after California and Alaska. Eight fault lines run under the city of Las Vegas alone. Earthquakes in the area have been minor (by in large M3 and M4 with the rare M5) and heavy earthquake damage has been thus far avoided. However, the Las Vegas Basin is comprised of unconsolidated alluvial and volcanic sediments that stretch across at depths of two to five kilometers. This factor combined with the relatively shallow water table depth (less than 50 feet) and the depletion of the underground reservoir put some areas of Las Vegas at very high risk of liquefaction (Las Vegas Weekly, 2003). The highest risk in the city is located near Nellis Air Force Base, fifteen miles from the site.

(See Apendix for Figures)

quantitative aspects utilities

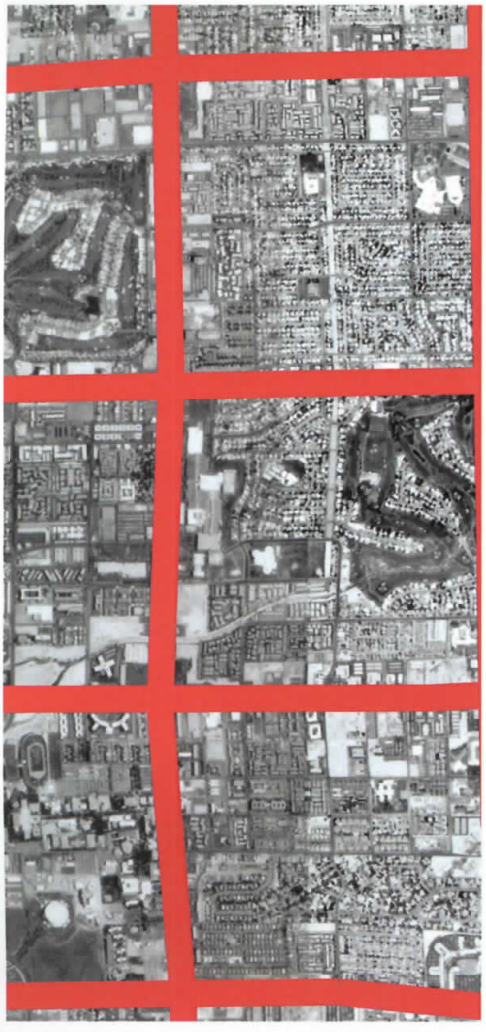
utilities

All utilities are available on the site; in fact, one of the notable features on site is the presence of a power relay substation.



quantitative aspects traffic

vehicular traffic



The city of Las Vegas is largely laid out on a one mile square grid. The bounding streets of the grid serve as arterial roads. Within the framework of this larger grid lies smaller half-mile square quadrangle. Some sections of the grid may be further segmented, depending on density and zoning. The effect of this pattern of streets creates a beautiful cityscape when viewed at night from one of the surrounding mountains.

Vehicular traffic is high along Flamingo Road, a six-lane street that runs East-West across the south end of the site. Traffic noises are heavy along this side of the site. The other bounding streets of Swenson (to the west) and Cambridge (to the east) are much quieter, serving as secondary roads to the primary traffic grid. The site is bounded by an apartment complex at the north end.

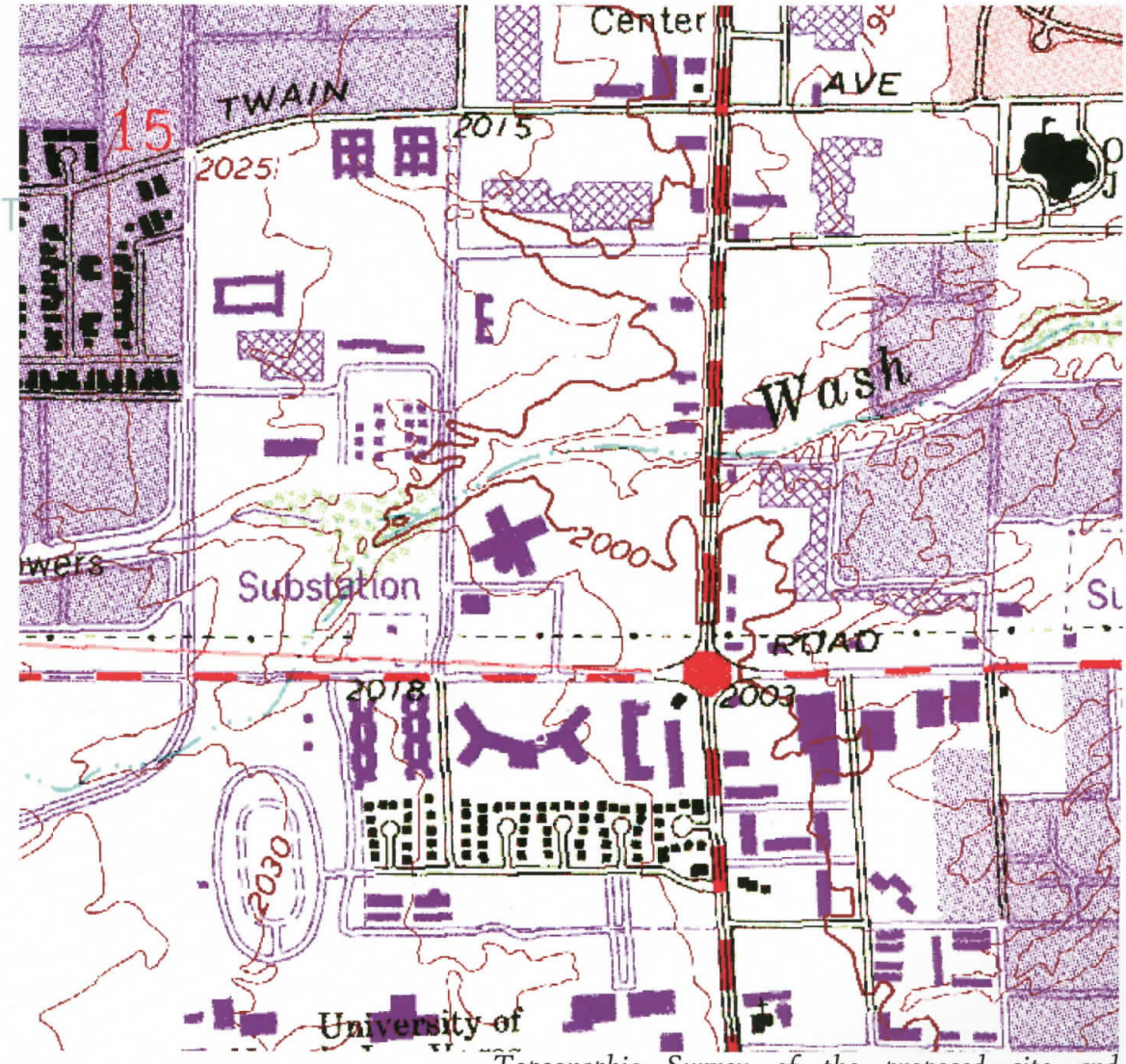
Flamingo Road meets up with Las Vegas Boulevard (The Strip) one mile west of the site and Interstate 15 another half mile down the road. Bus routes run down Flamingo Road, Cambridge Street and Swenson Street. McCarran International Airport is located one and a half miles south of the site and air traffic does pass overhead.

pedestrian traffic

Pedestrian traffic at the site is moderate. The areas surrounding the site to the north and west and north-east are zoned high-density residential. To the south lies the Atomic Energy Museum, the Desert Research Institute, and the northernmost boundary of the University of Nevada-Las Vegas campus. Bicycle traffic consists of local residents making their way to and from work and the bus stop.

quantitative aspects survey topographic

Elevations slope from the south-west to the north-east. Elevations range from 2000 to 2030 feet above sea level.



Topographic Survey of the proposed site and surrounding area.

quantitative aspects

aerial photographs

digital orthographic photos

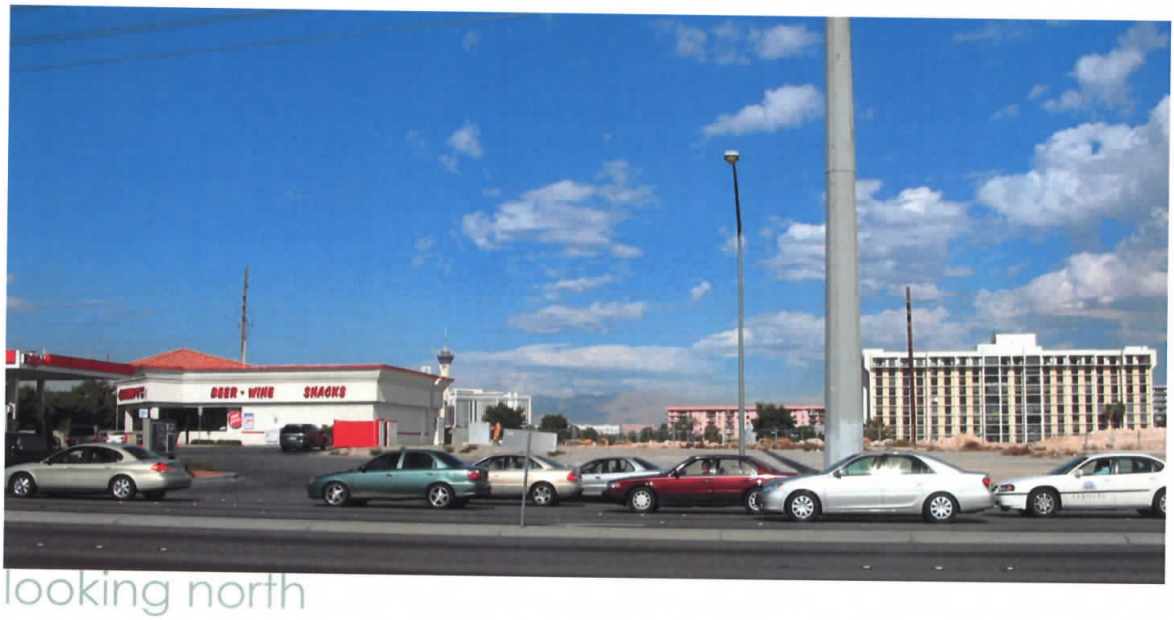
surrounding neighborhood

site in context

quantitative aspects site photographs

site photographs

looking east



looking north

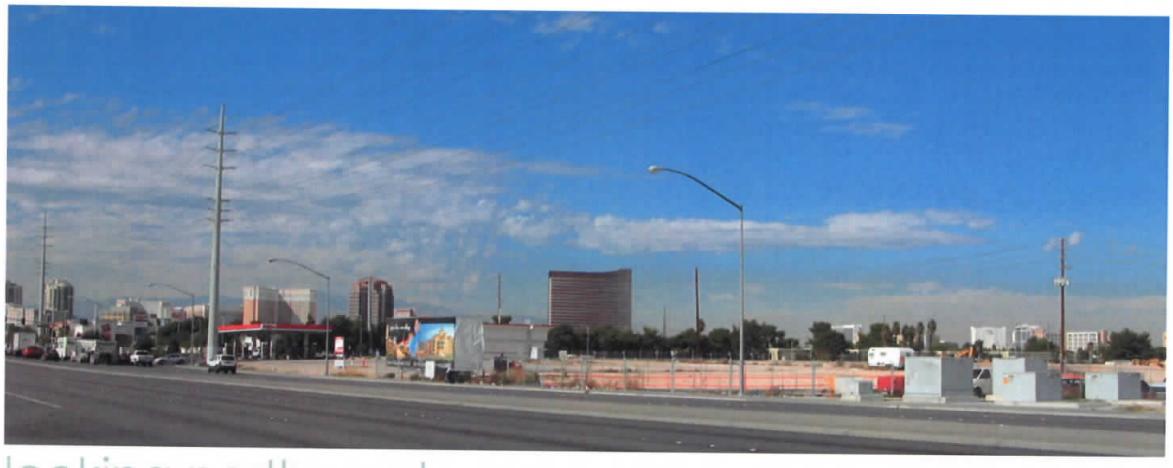
looking west on a cloudy day

looking east on a cloudy day

quantitative aspects

site photographs

site photographs



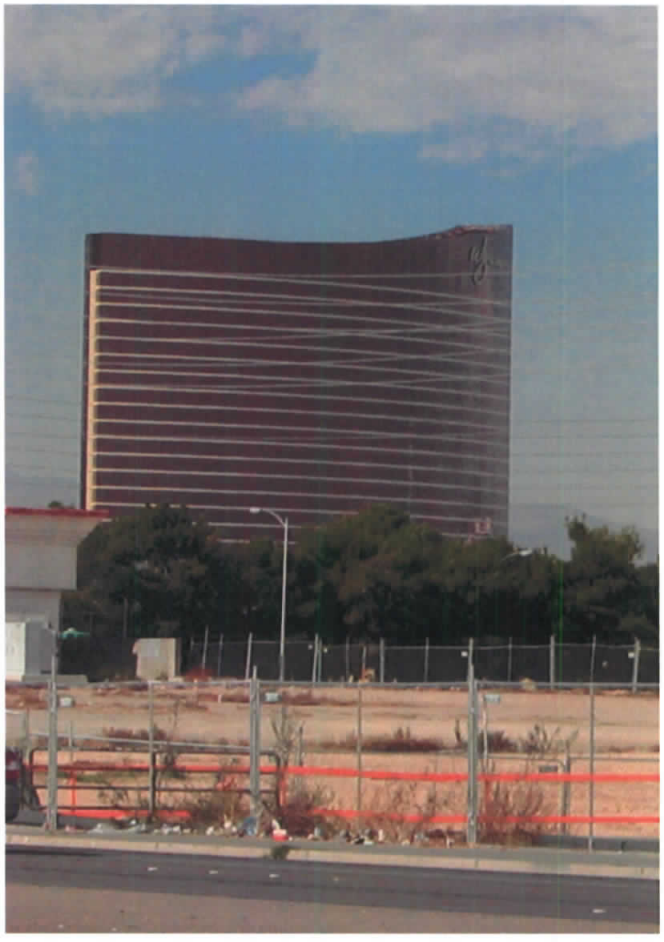
looking north-west

looking south-east

quantitative aspects

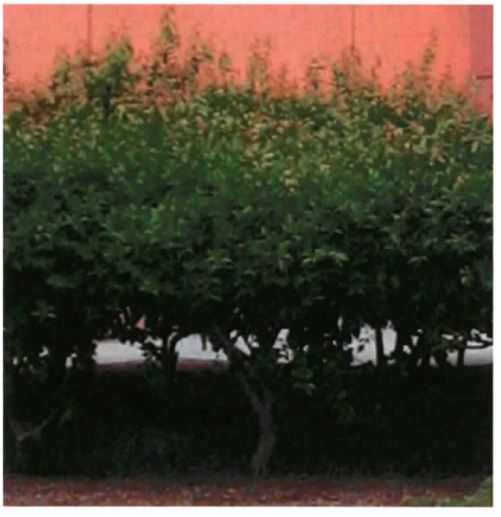
visual form

Looking west on the site the skyline of the Las Vegas Strip is visible. The Wynn lies slightly north-west, and is the tallest visible landmark. Frenchman Mountain lies to the east of the site. The mountains slope gently towards the city but are often obscured by smog. The site is free from vegetation and with the exception of the gas station and power relay station, free from buildings.



quantitative aspects

plant cover



Little vegetation covers the site. Located in the arid southwest, untouched areas within the city exhibit desert characteristics. A scattering of scrub brush lines the chain link fence that runs east-west across the site and some patches of Oleander cling to the intersections of the fence. Otherwise the majority of the site consists of orange dust, sand, and rock

white oleander

found on southeast corner of site

palo verde tree

found half a mile east of site

quantitative aspects site character

Las Vegas lies within the Mojave Desert in an arid basin surrounded by the Black, Sheep, and Spring Mountain Ranges The site lies on top of a mile and a half of alluvial deposits over bedrock. Little erosion is evident within the site, with the exception of the wash, the banks of which have been reinforced with salvaged concrete rubble. The water within the wash is slow moving and muddy. In addition a fair amount of trash either washes into the channels during flash floods or is deposited by local residents.

site character

The community surrounding the site is vibrant, as it is everywhere in Las Vegas. No stores remain empty, no apartments unrented for long.

quantitative aspects climate data

temperature

Temperatures in Las Vegas range from winter lows in the 30's to daytime highs of over 110ºF during the summer. Average daily highs for the summer months of June, July, and August are over 100ºF. Nightly lows in the summertime run from the low to mid 70's. Winters in the city are quite mild. December, January, and February sport average daily highs of high 50's to low 60's and average lows in the 30's. It is exceptionally rare that the temperature dips below freezing and even rarer for snow to fall in the basin.

humidity

The arid Mojave Desert does not offer much for humidity in the summer months. Humidity levels during the day fluctuate between 10 to 20% in the summer months and between 25 and 40% during the winter. Nights in both seasons are more humid: 45-55% for winter, 25-35% for summer.

precipitation

The average yearly rainfall in the basin runs from two to four inches. Most months only garner one-tenth to one-half of an inch. However, atmospheric conditions do occasionally produce thunderstorms in which as much as five inches can fall in an hour. These downpours cause flash flooding, swamping low lying areas in the basin and washing away cars.

cloudiness

The skies above Vegas are very rarely cloudy. Typical months experience only two to four days of cloudy skies. Months usually average between fifteen to twenty-two completely clear days and five to seven partly cloudy days. There are very few weather surprises for the Las Vegas resident. The weather is always bright and sunny.

quantitative aspects climate data

wind speed

Average wind speeds in the valley are calm, running from seven to eleven miles per hour. This creates the opportunity for pollution to become trapped in the basin. Many days the mountains in the distance are not visible simply because of the thickness of the smog.

topography and air movement

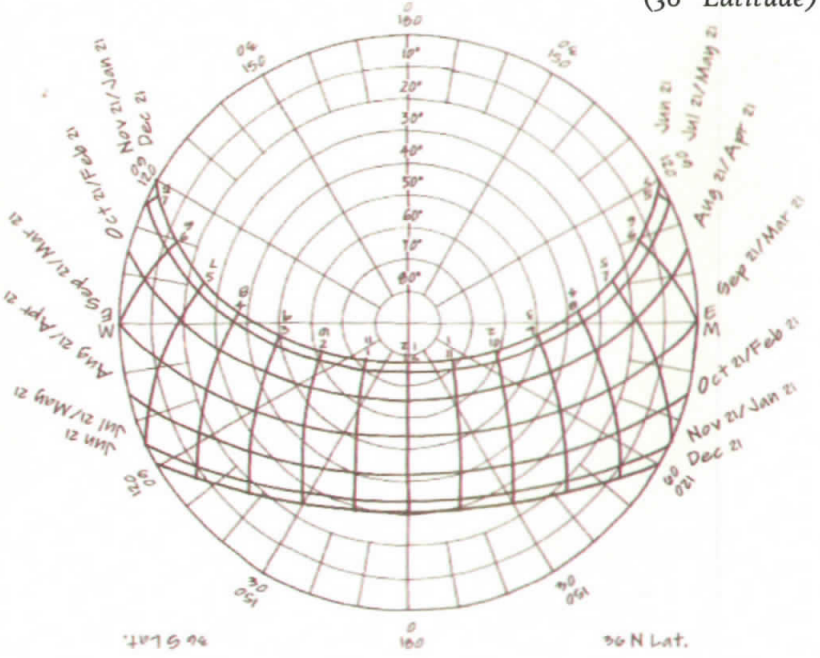
Dust is another atmospheric pollutant that gets kicked up and trapped in the basin. For this reason all construction in the valley is required to frequently wet down the sites.

wind direction

Winds blow from the northeast or east to the southwest. *(see appendix for wind roses)*

sun path diagram

(36° Latitude)



quantitative aspects climate data

slope and climate

shading

noise

Average wind speeds in the valley are calm, running from seven to eleven miles per hour. This creates the opportunity for pollution to become trapped in the basin. Many days the mountains in the distance are not visible simply because of the thickness of the smog.

Dust is another atmospheric pollutant that gets kicked up and trapped in the basin. For this reason all construction in the valley is required to frequently wet down the sites.

Winds blow from the northeast or east to the southwest. (see appendix for wind roses)

qualitative aspects

built features

high density apartment complex 1
medium density apartment complex 2
office complex 3
strip mall 4

grumpy's exxon gas station 5
power relay substation 6

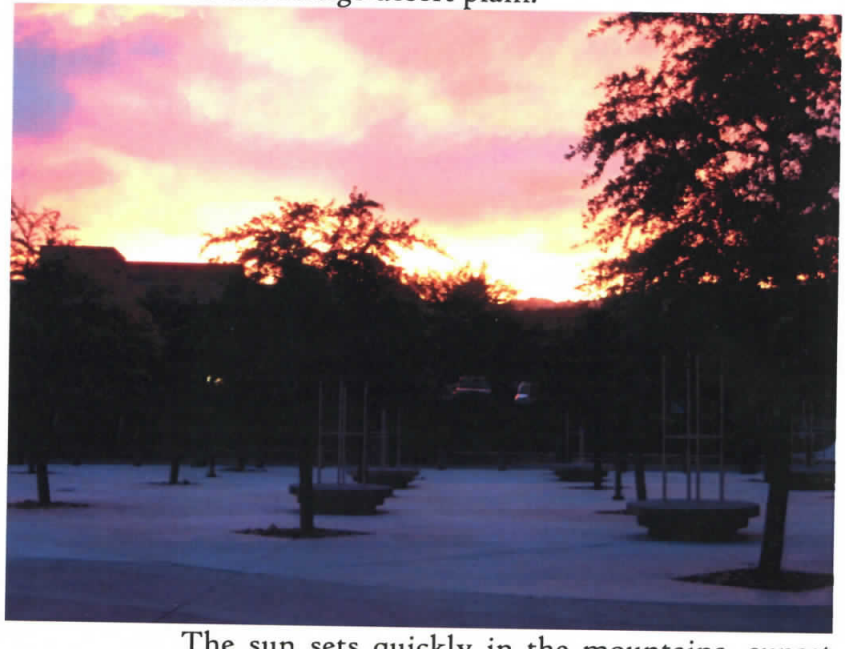
atomic energy museum 7
international gaming institute (UNLV) 8
desert research institute 9

qualitative aspects

light quality

temperature

Light on the site is pure white light; bright, hot, always intense, blinding sometimes. There are no built features near enough to cast shadows nor is the existing vegetation tall enough to offer shade. The light reflects up off of sidewalks, the white of the residential complex, and the desert soil. Relief is found on the opposite sides of the bounding streets where plant cover create walkway arcades and light gently falls to the ground in-between leaves. The green of the vegetation also relieves the eyes from the strain of the orange desert plain.



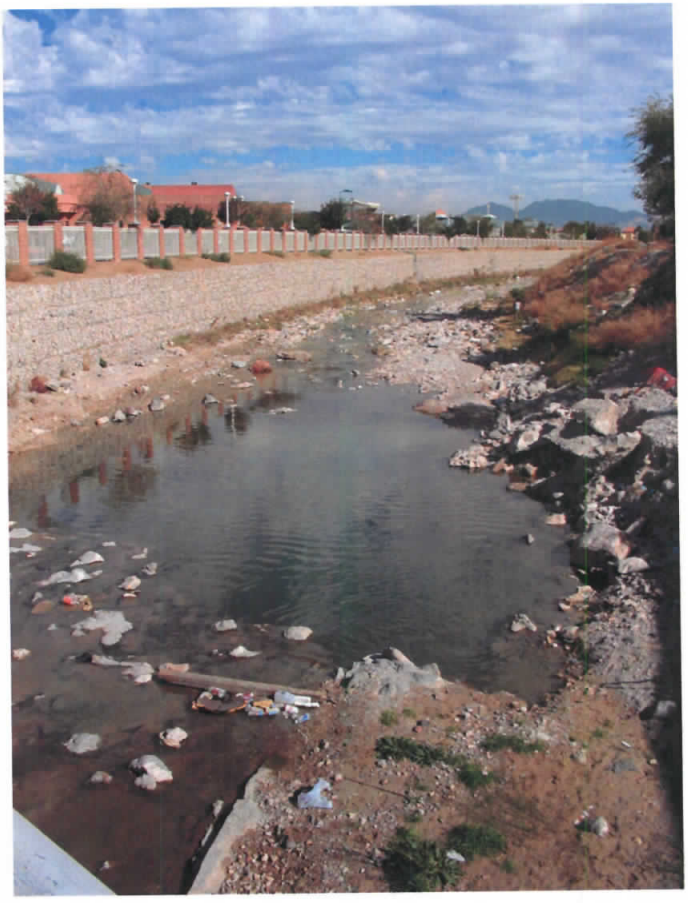
The sun sets quickly in the mountains, sunset casting a purple shadow on the ground.

At night the lights of the strip glow from the west, the beacon light of the Luxor pyramid shoots up to the sky, reflecting off cloud cover, if there is any. Beyond the strip the lights of huge neon signs and parking lights cast a muted orange glow upon trees and buildings.

qualitative aspects water

water

Pedestrian traffic at the site is moderate. The



programmatic requirements

the library

space	sf	#	total sf
Lobby	2000	1	2000
Entrance	400	2	800
Circulation	200	1	200
Book Return	50	4	200
Forum-Discourse			
Large Auditorium	4000	1	4000
Informal Public Gathering	2000	1	2000
Conference Rooms - various sizes			
small	200	8	1600
large	600	3	1800
Digital Media			
Community Learning Center	1000	1	1000
Community Computers	4000	2	8000
Visual Media-Arts			
Arts Center-Community Learning	1000	1	1000
Gallery	500	1	500
Children's			
Circulation	150	2	300
Restrooms	100	2	200
Staff Area	200	1	200
Story Time	100	2	200
Discovery Area	100	3	300
Stacks	2800	1	2800
Reading	1500	1	1500

programmatic requirements (continued)

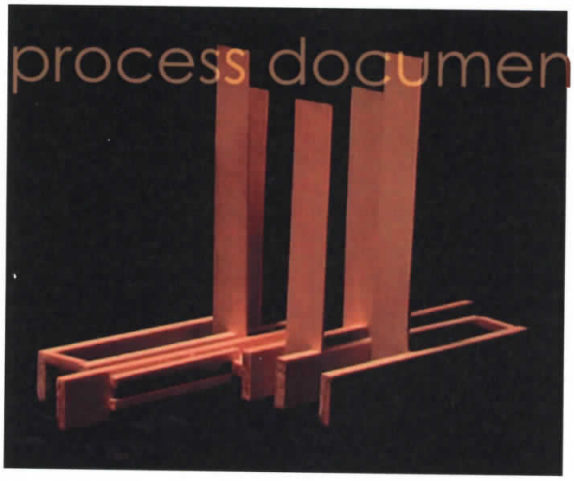
space	sf	#	total sf
Young Adults			
Media	300	1	300
Computer Access	300	2	600
Reading Areas	200	6	1200
Individual Study/Small Study Rooms	1100	4	4400
Larger Open Areas to Hang Out	300	3	900
Stacks	5000	1	5000
Adults			
Circulation	1000	1	1000
Reading Areas- private-very small	50	10	500
Reading Areas- small	200	10	2000
Stacks	66,000	1	66,000
Periodicals	3000	1	3000
Older Media/Microfiche/ Private Collections	3000	1	3000
Support			
Collection Management	300	1	300
Acquisitions	300	1	300
Cataloging	400	1	400
Interlibrary Loan	500	1	500
Preservation	400	1	400
Inventory Control	400	1	400
Staff Lounge and Kitchen	1000	1	1000
Restrooms	200	1	200
Shipping/Receiving	1000	1	1000
Materials Sorting Room	400	1	400
Storage	1000	1	1000
Coffee Shop	3000	1	3000
Public Restrooms	300	4	1200
Janitorial/ Maintenance	400	1	400
Reference Desk	1000	1	1000

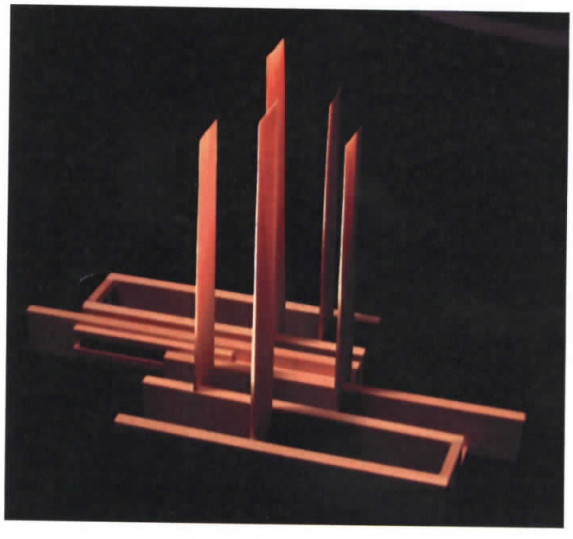
programmatic requirements (continued)

space	sf	#	total sf
Data Closet	80	1	80
Total			120,780
Mechanical			18,117
Circulation			18,117
Grand Total			157,014

process and final documentation

process documentation library





the parti

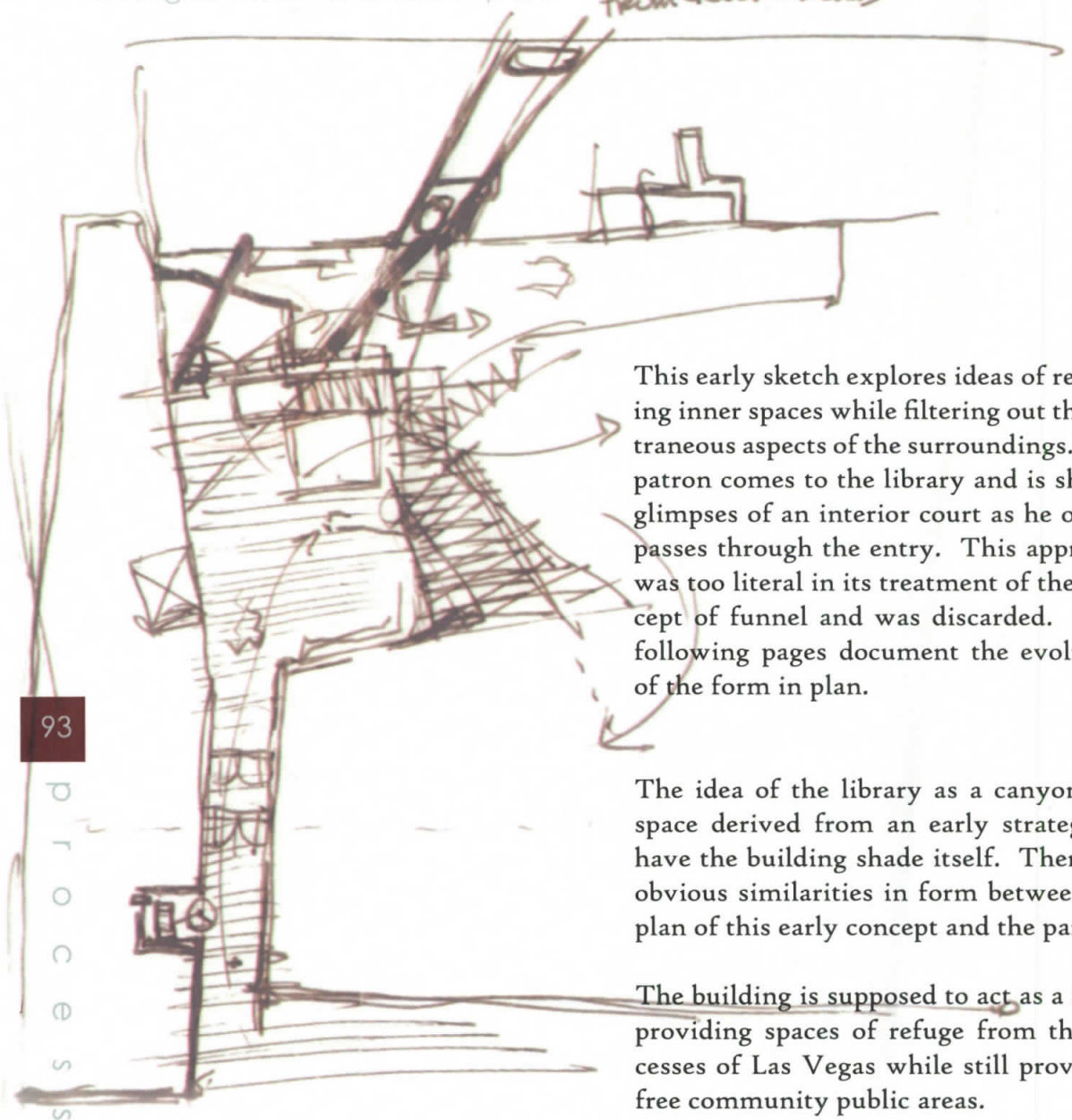
People access information in a library primarily in one of two ways, which I have dubbed Filtering and Funneling. The way a person moves through stacks, browsing is much like a filter. The patron is sorting through large amounts of information, though not necessarily in a directional mode. Whereas the act of asking a librarian, or looking up the title of a specific book moves the patron in a very directional mode, much like a funnel, but with no chance to interact with other random information.

This observation led to the development of my parti, shown at left. The thin strips of wood act as filters against light and movement, yet when they are aligned (the base is able to slide against itself) they begin to form a funnel.

This parti informed the direction of my project at all stages and its influence is able to be seen at many levels.

process documentation library

an early sketch of the building acting as funnel and filter in plan.



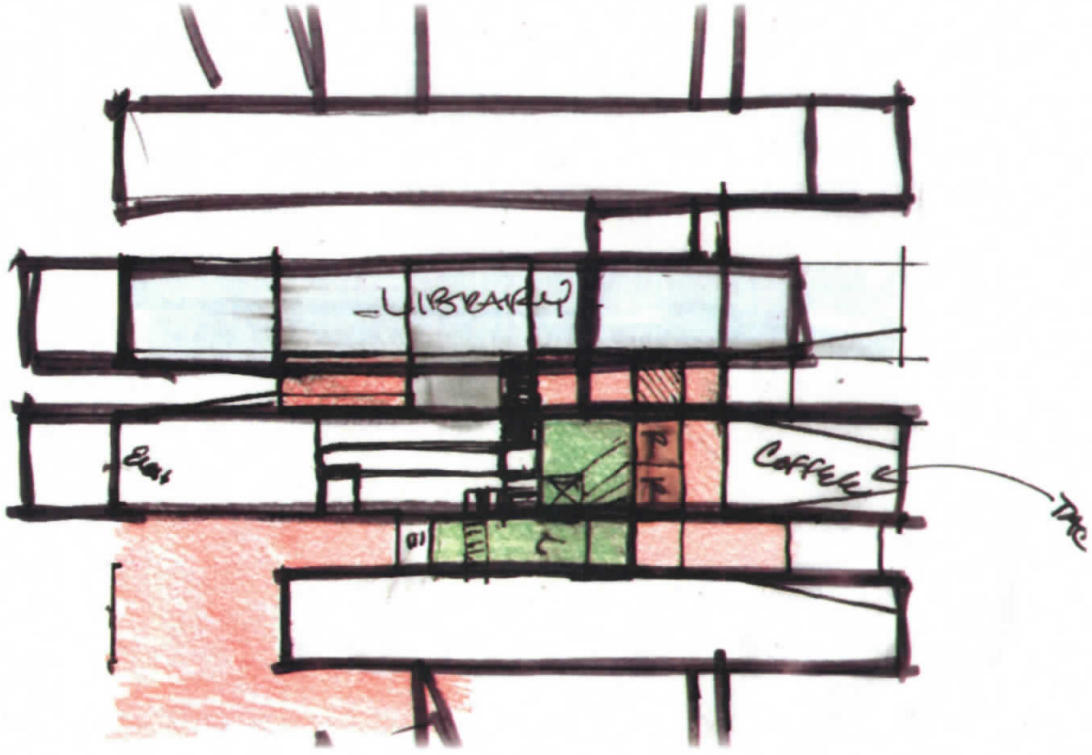
This early sketch explores ideas of revealing inner spaces while filtering out the extraneous aspects of the surroundings. The patron comes to the library and is shown glimpses of an interior court as he or she passes through the entry. This approach was too literal in its treatment of the concept of funnel and was discarded. The following pages document the evolution of the form in plan.

The idea of the library as a canyon-like space derived from an early strategy to have the building shade itself. There are obvious similarities in form between the plan of this early concept and the parti.

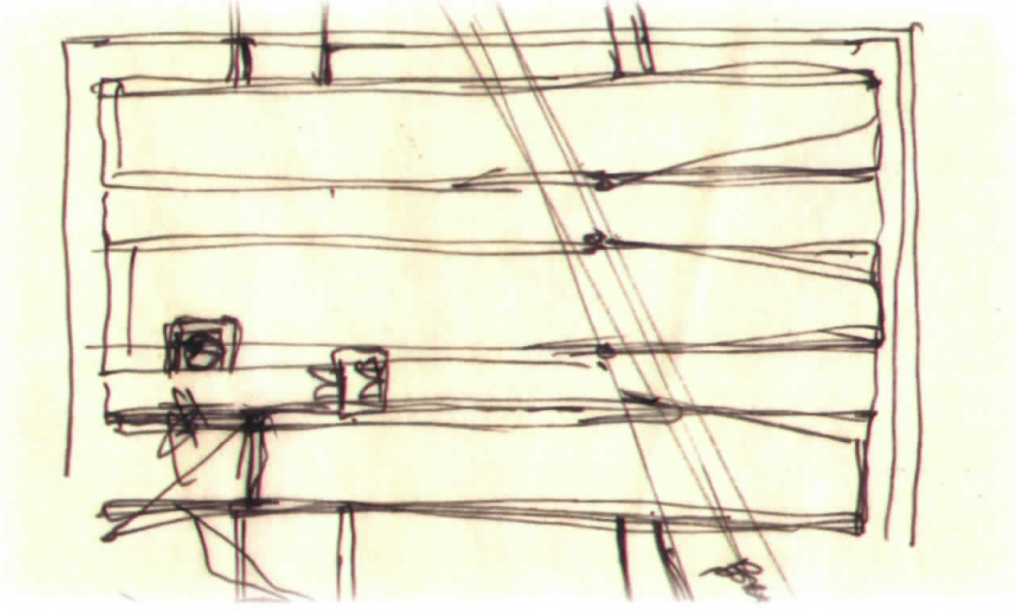
The building is supposed to act as a filter, providing spaces of refuge from the excesses of Las Vegas while still providing free community public areas.

process documentation library

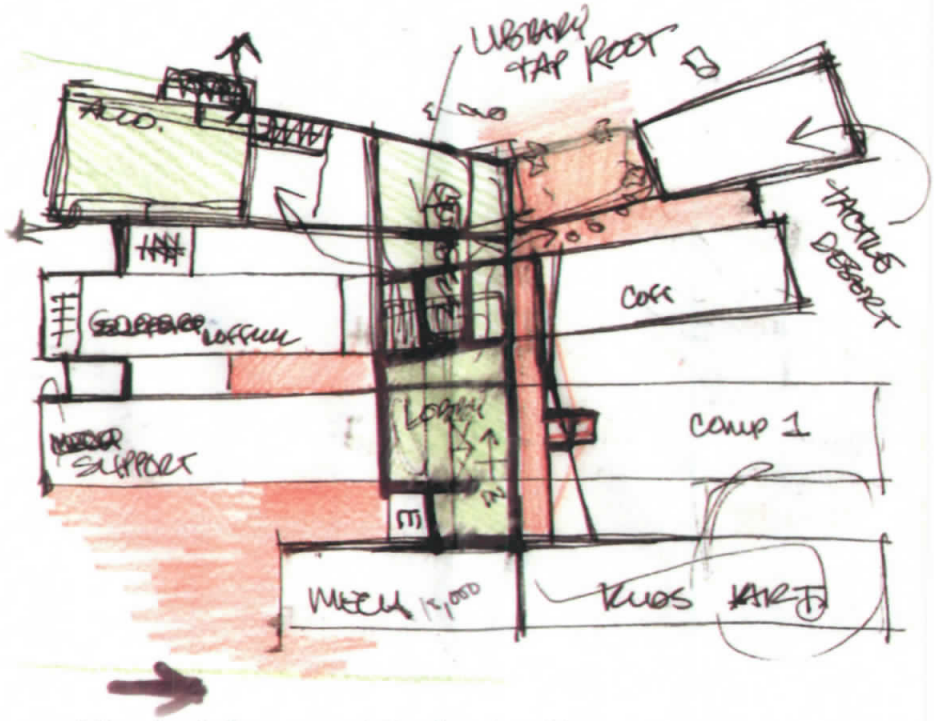
initial ideas in plan



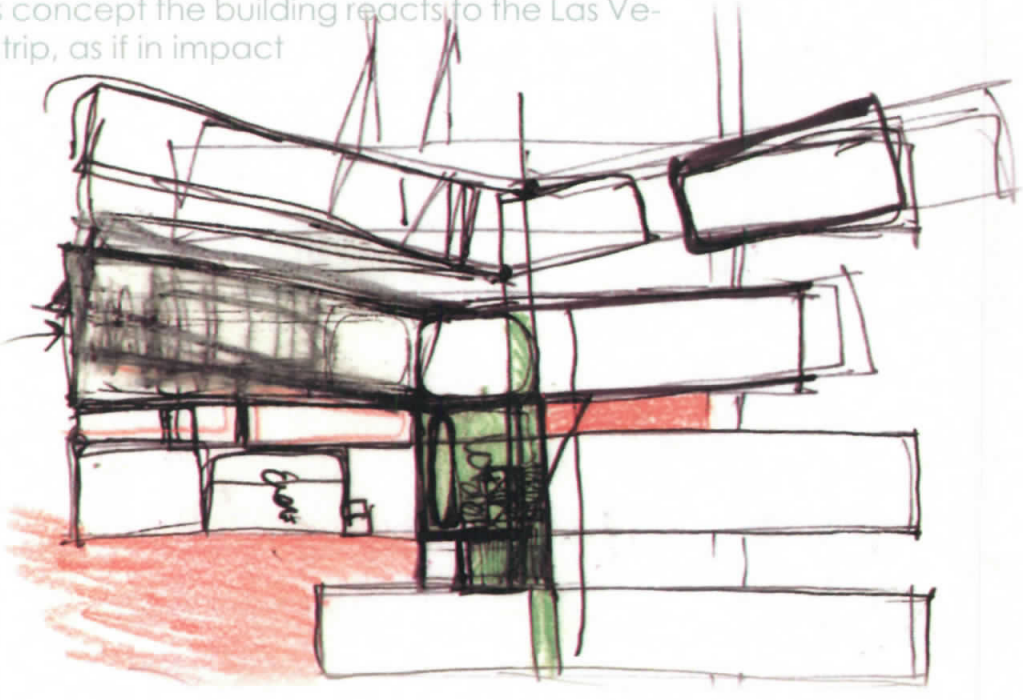
the building begins to react to the north light by opening



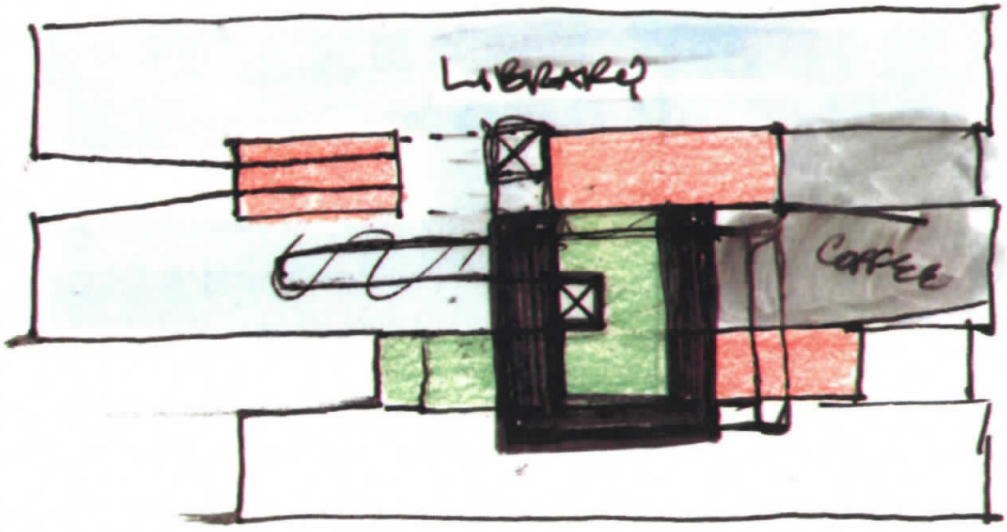
process documentation library



in this concept the building reacts to the Las Vegas Strip, as if in impact

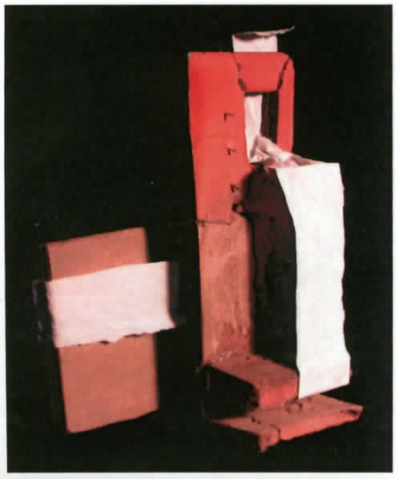


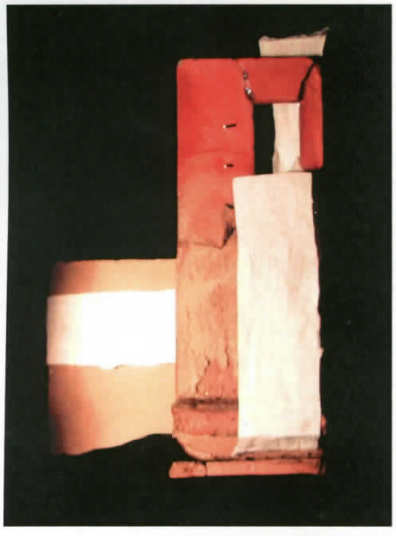
process documentation library



This multi-fingered approach was eventually abandoned in favor of a two-fingered approach. In the previous selections the building won't act as a filter. The patron has too many opportunities to move between towers and the building looses any sense of direction.

process documentation library





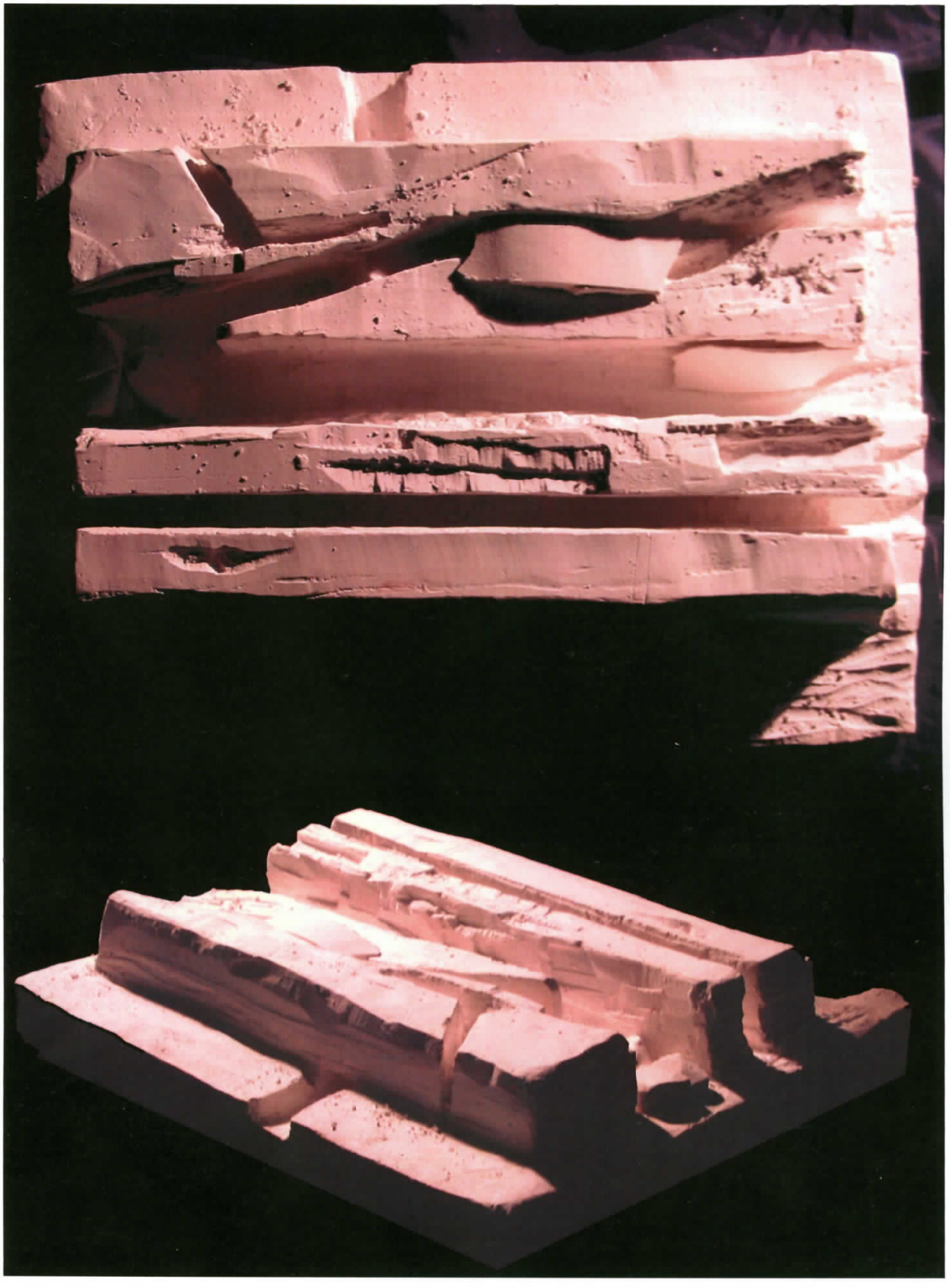
material analog

The material analog describes the relationship between the solid, immovable sandstone and the tensile fabric structures. The fabric moves freely at some points, weaves in and out of the solid forms and begins to delineate space itself.

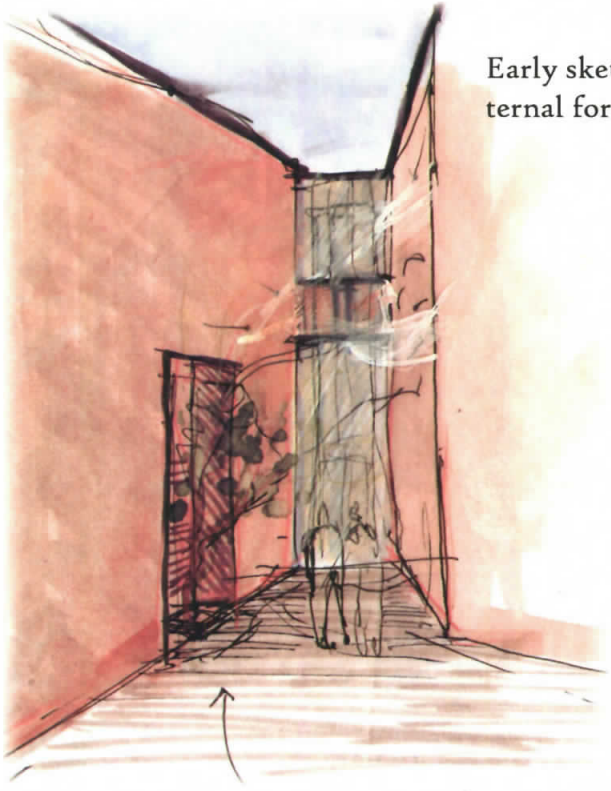
plaster

After casting a large solid piece of plaster, I began to carve into it, trying to evoke the process of erosion and begin to relate that to the form of my library. Trying to express a building that eroded internally was hard, given the nature of the material, but it did give me insight into the final form of the walls that begin to break away in the final solution.

process documentation library

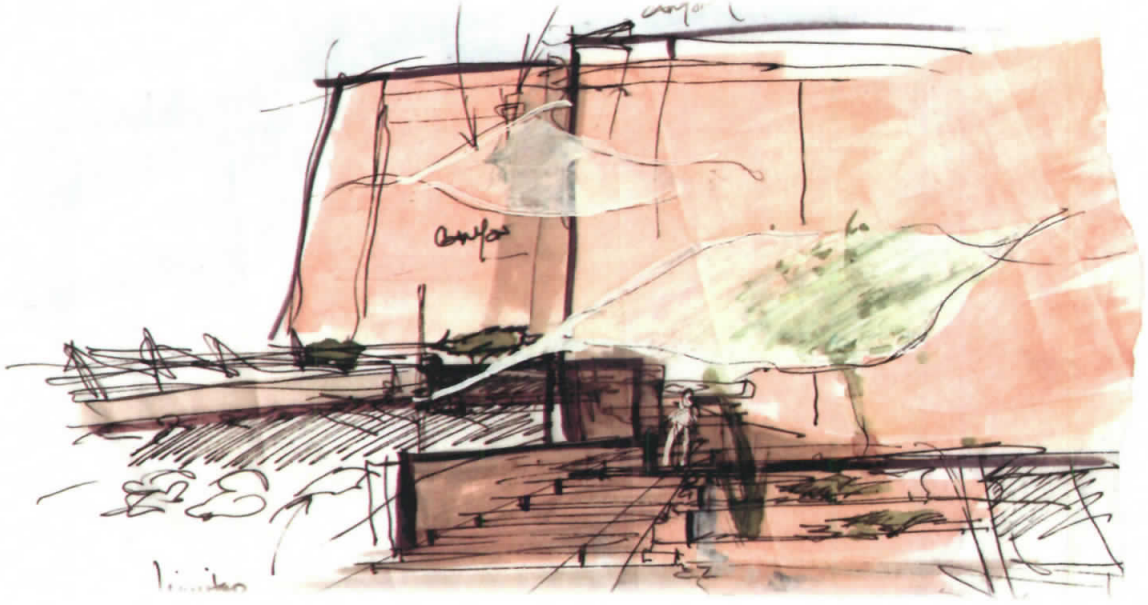


process documentation library



early sketches

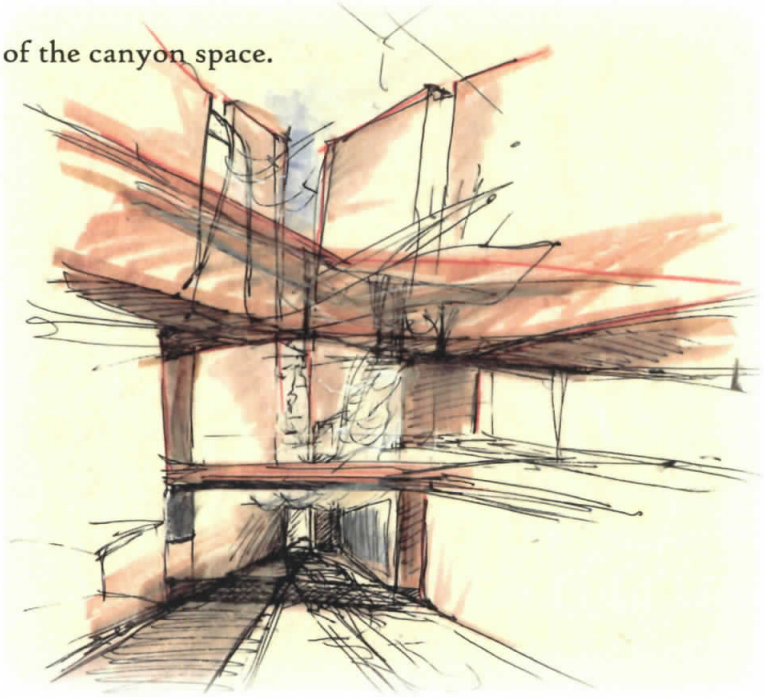
Early sketches showing the development of the external form and entry.

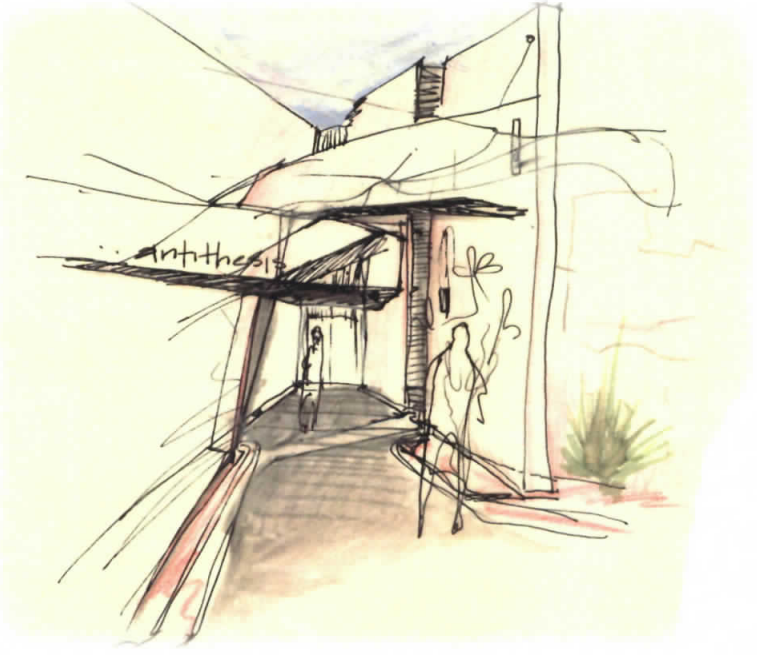


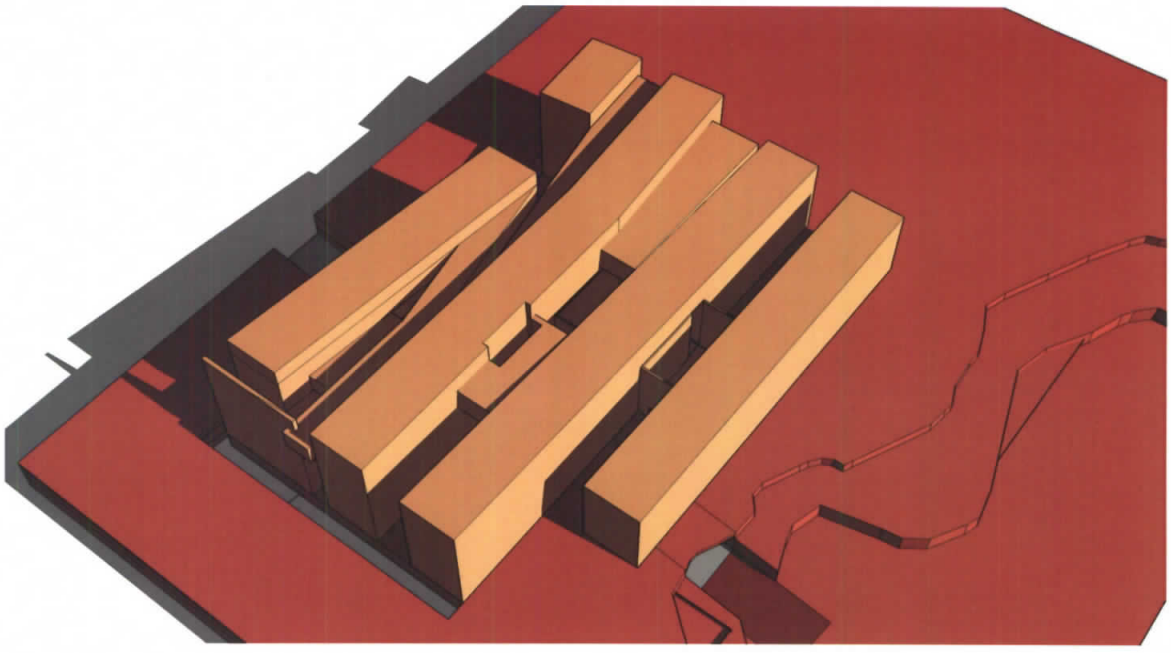
process documentation library

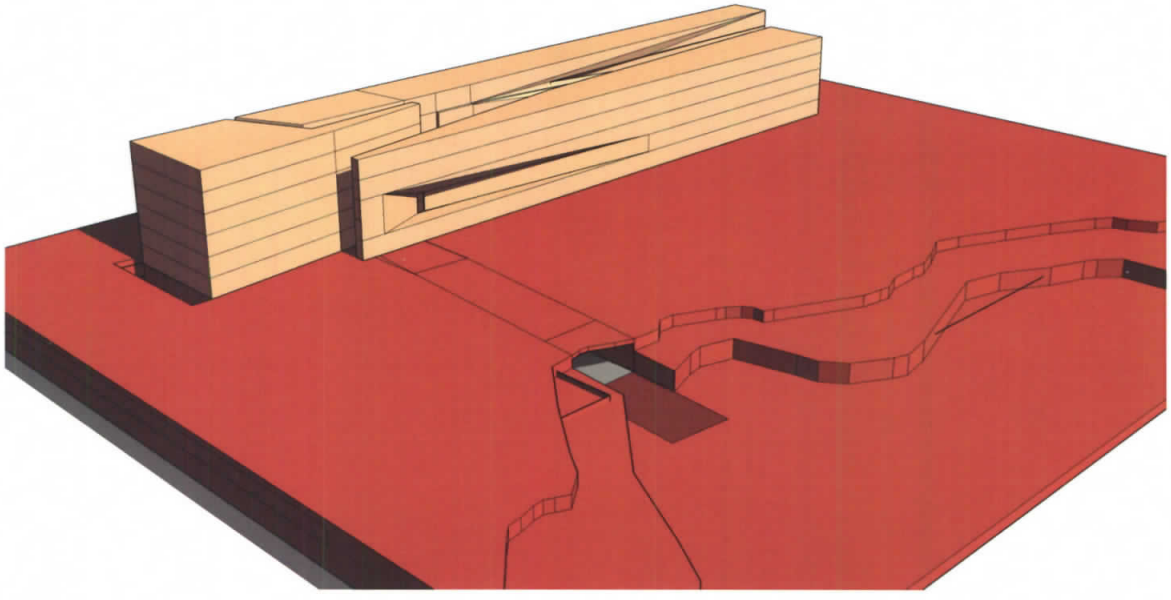
late sketches

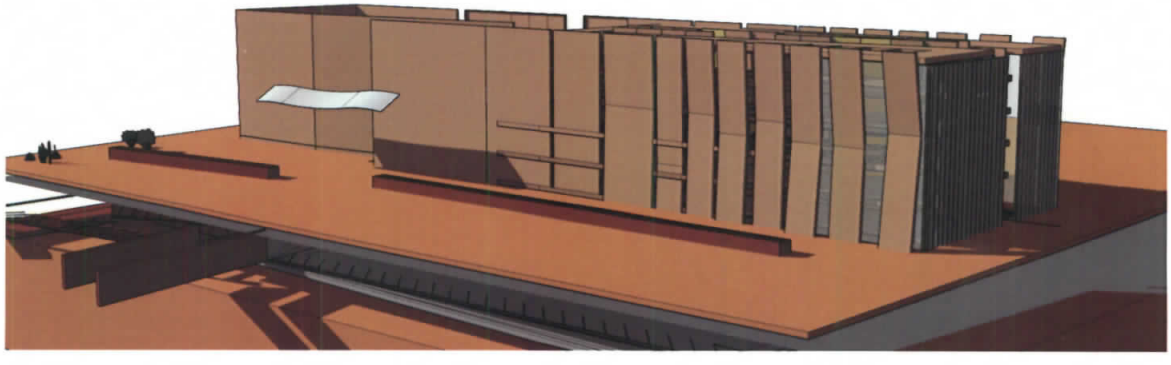
Later sketches of the interior of the canyon space.











solution

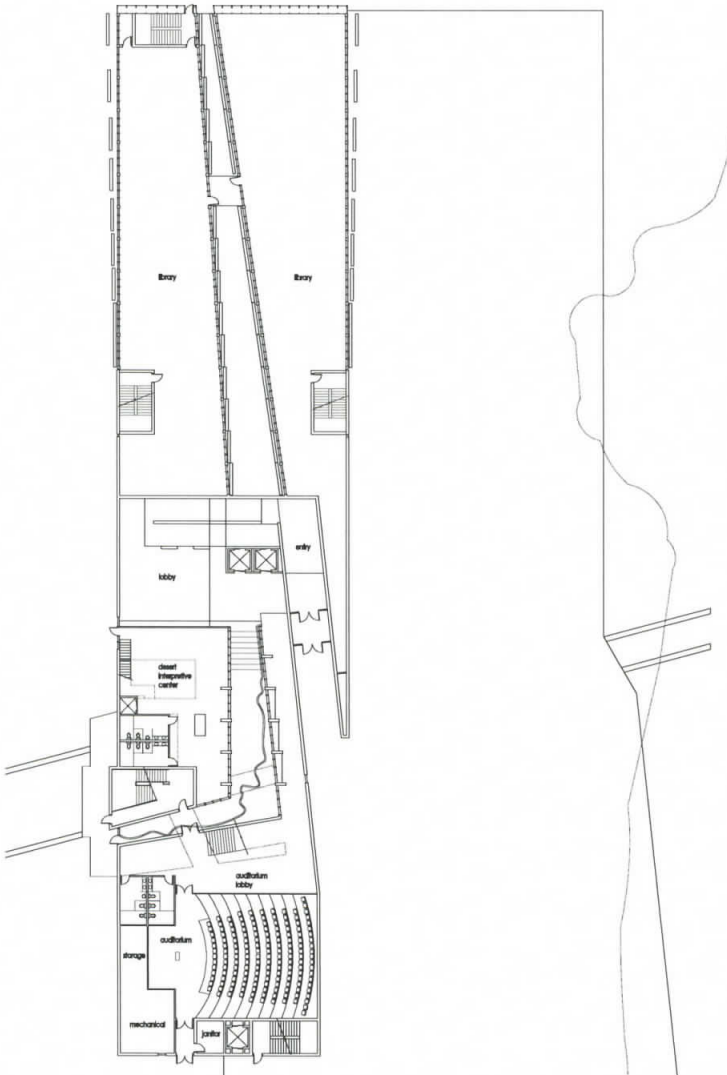
library

The following documentation refers to the final design solution.

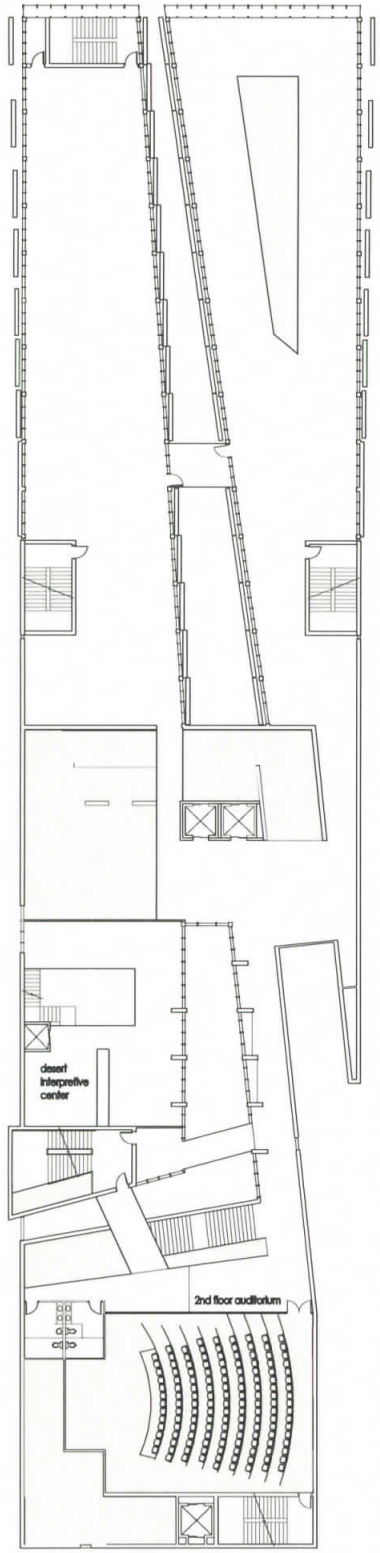
interior perspective of library

solution

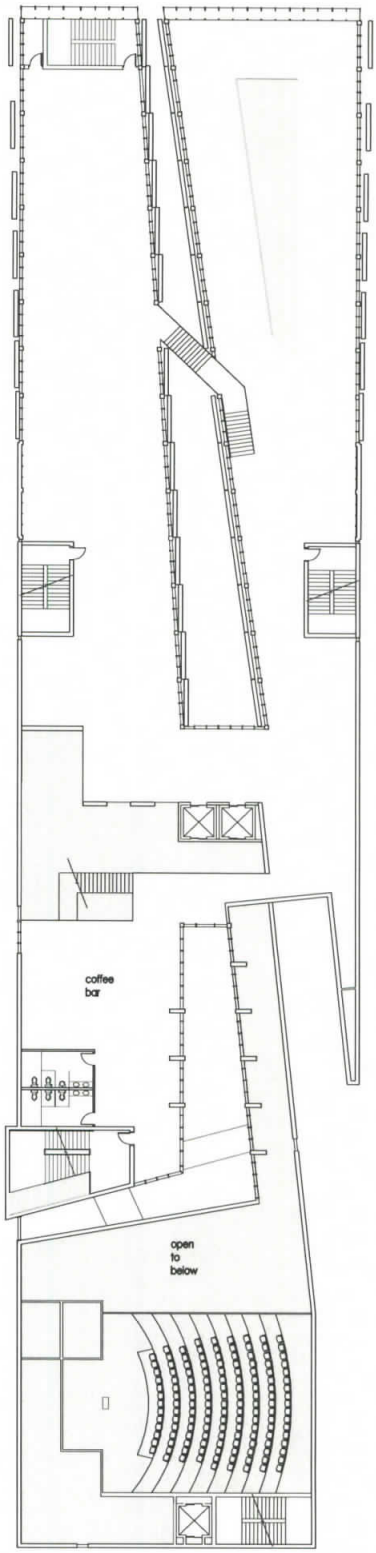
library



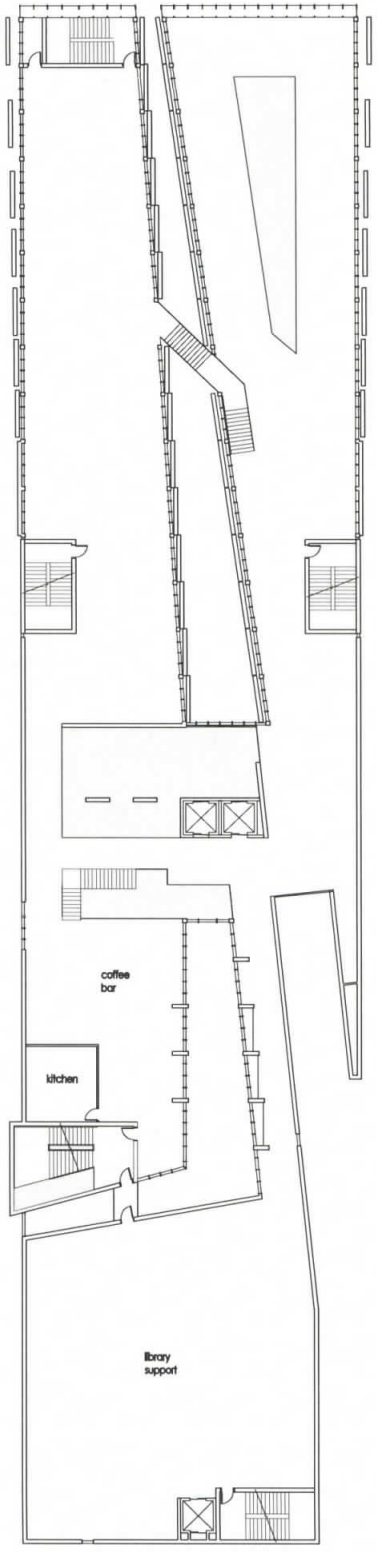
first floor plan



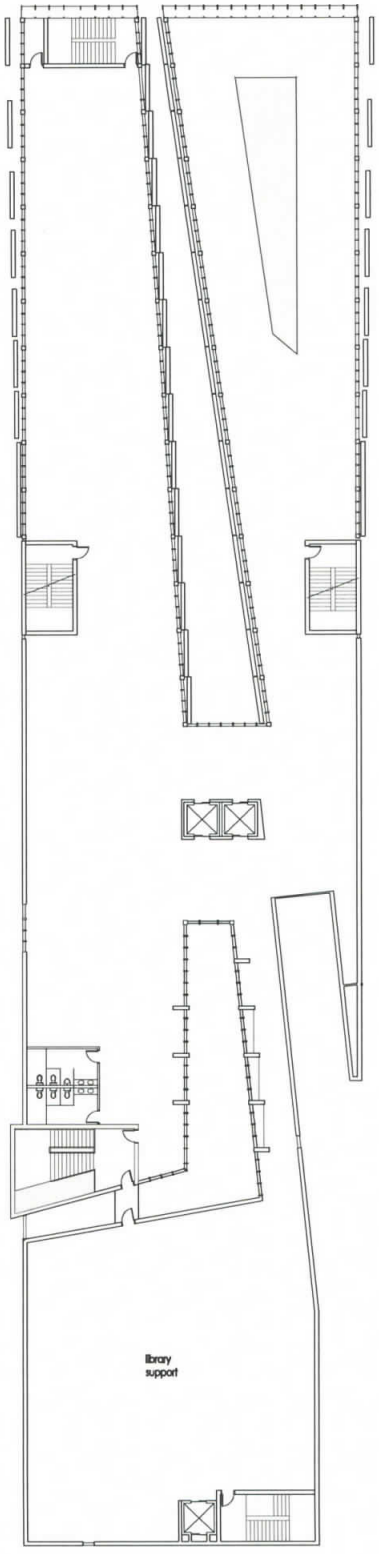
2 level



3 level



4 level



5 level

solution

library

desert interpretive center

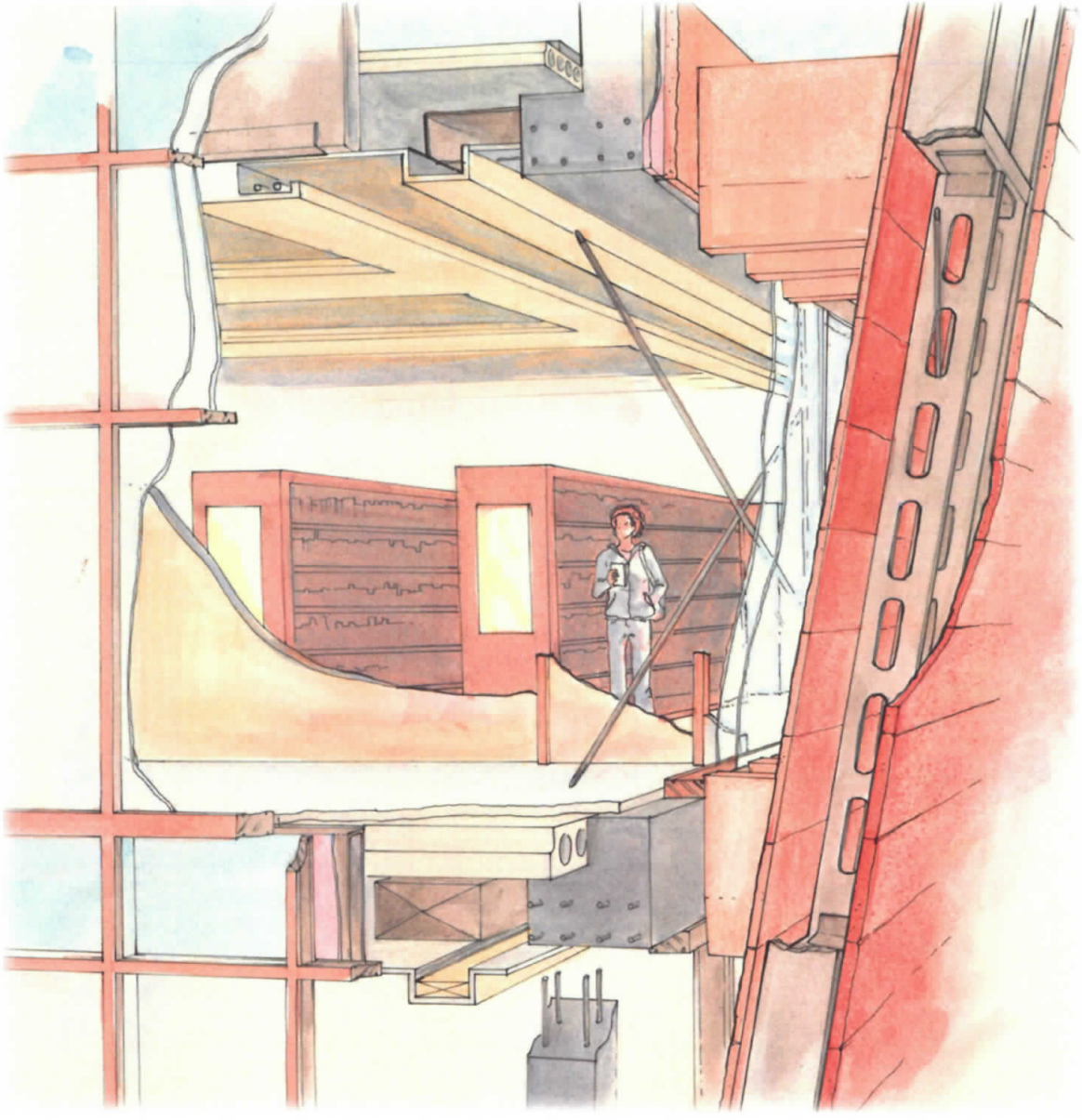
Following the directives of the Las Vegas Public Library Advisory Boards, all branch libraries have a public community feature. Given the proximity of this library to the Nevada Desert Research Institute (across the street), the kind of water and resource waste currently going on in Las Vegas, and the nature of this building itself, I chose a desert interpretive center.

solution

library

axonimetric wall section

Exposing the north end of the east finger. The axon shows the relationship between the double skin of the building and the fragments of walls.

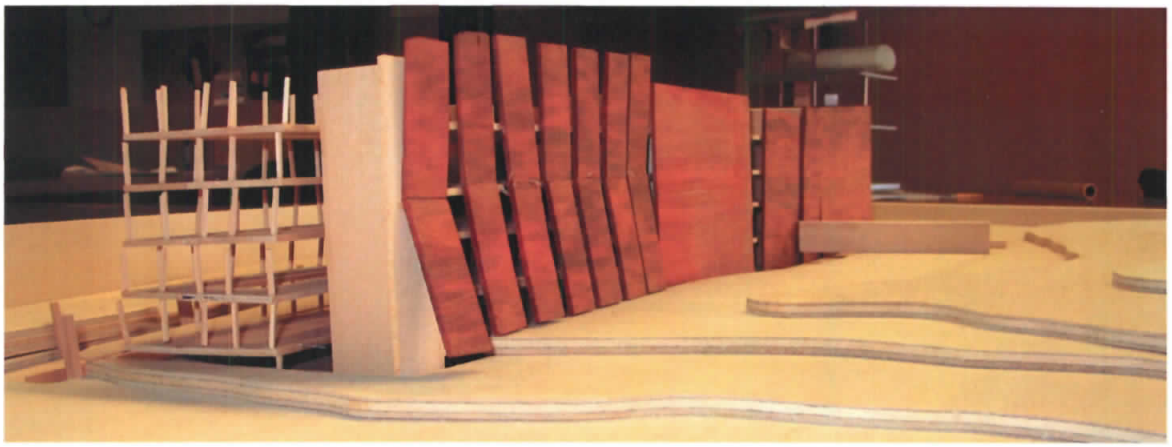


solution

library

physical model

Shows the relationship between inside and outside. Are those columns straight or what? Obviously relying on magnetism, as usual, to hold up the floor plates.



Q. what side of the street was it on?
A. yellow

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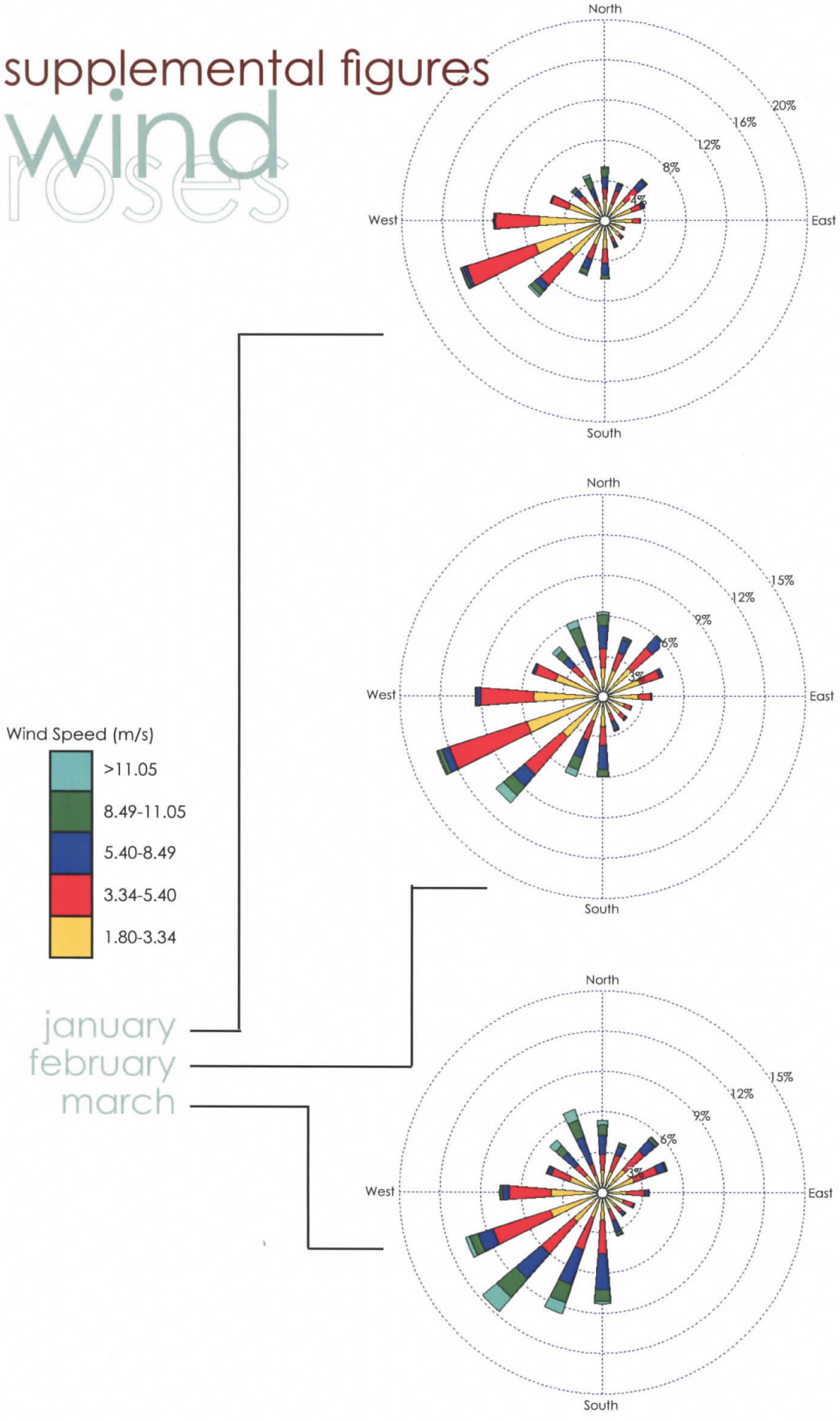
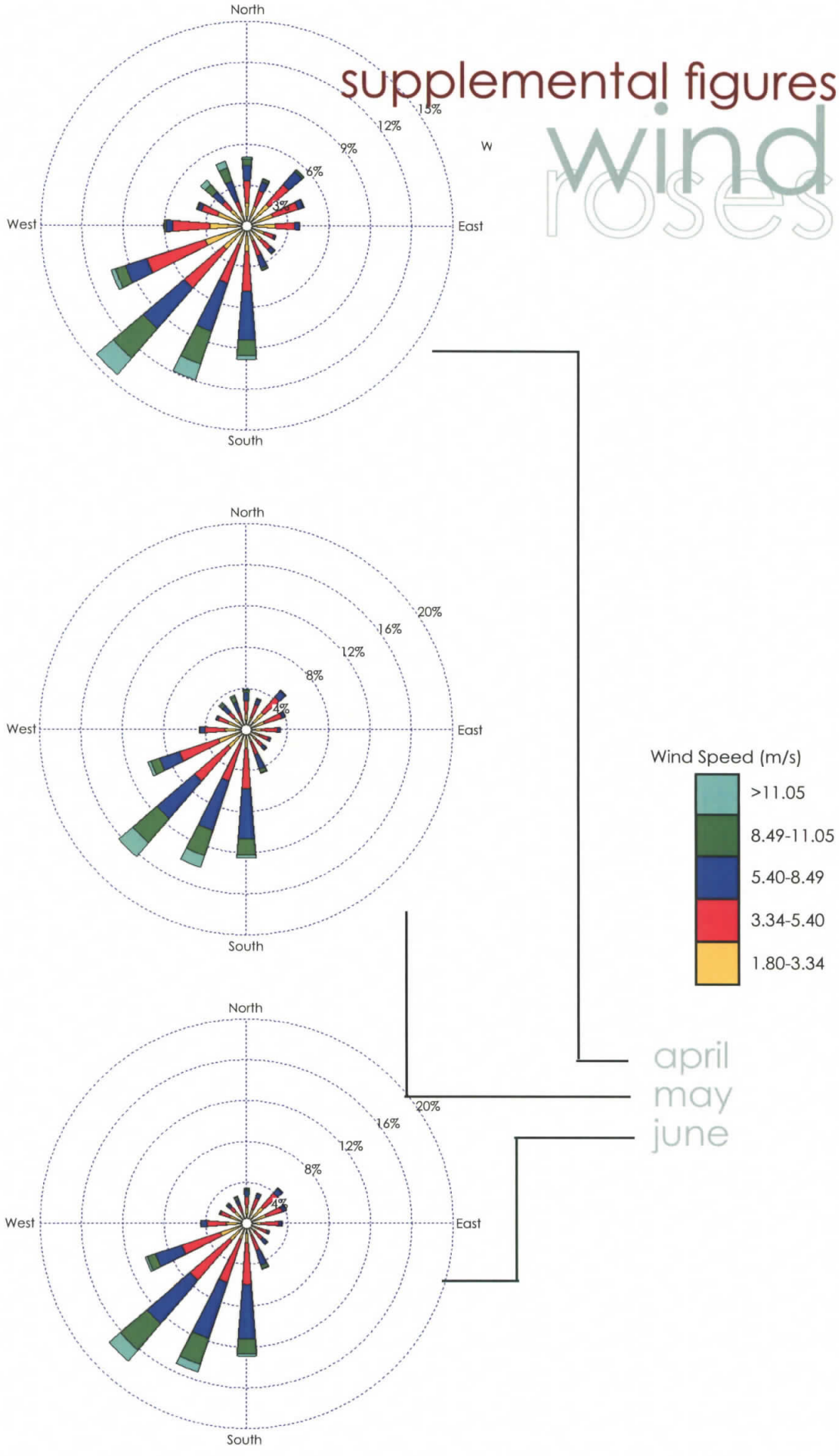
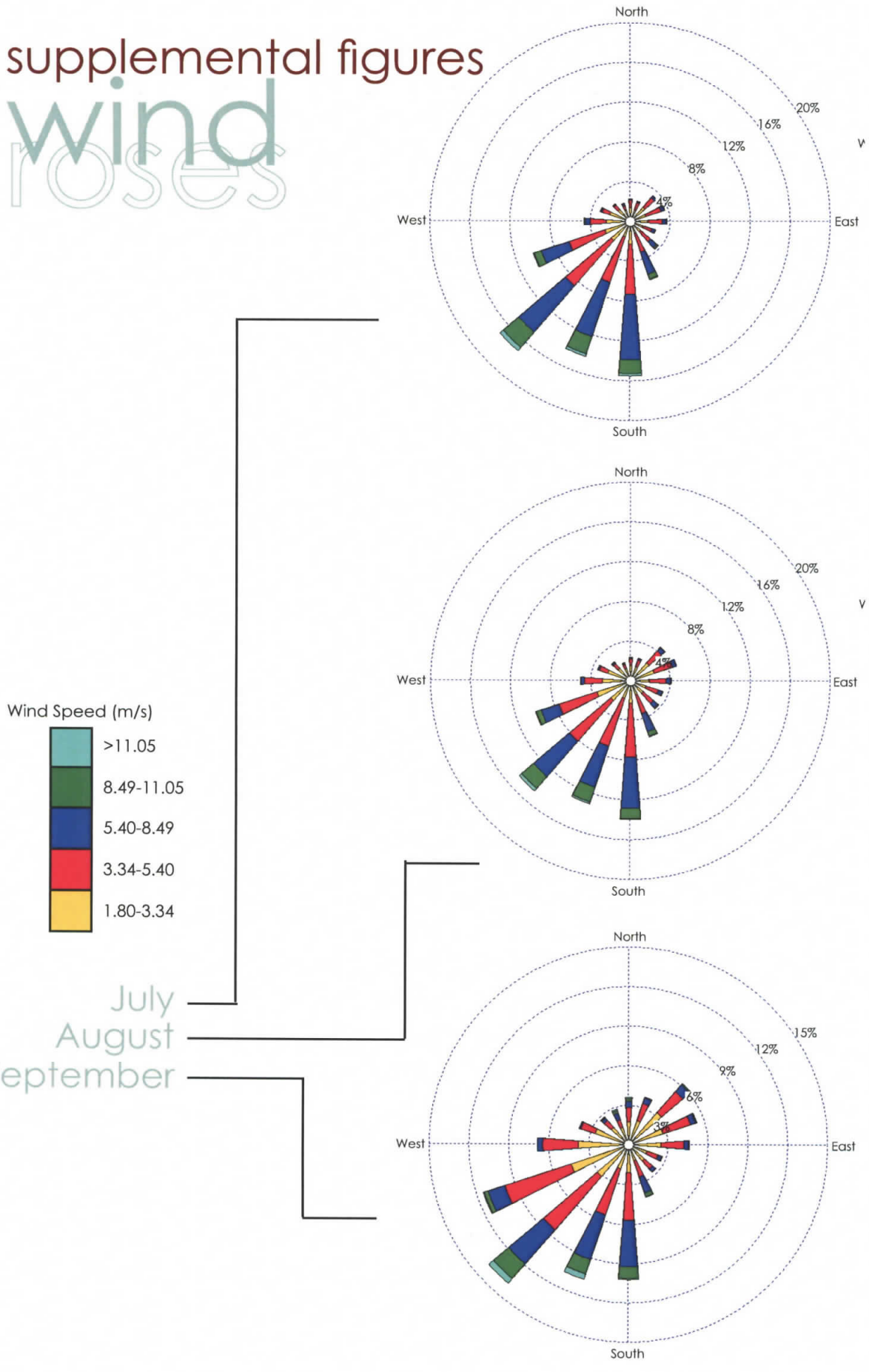
supplemental figures
wind roses



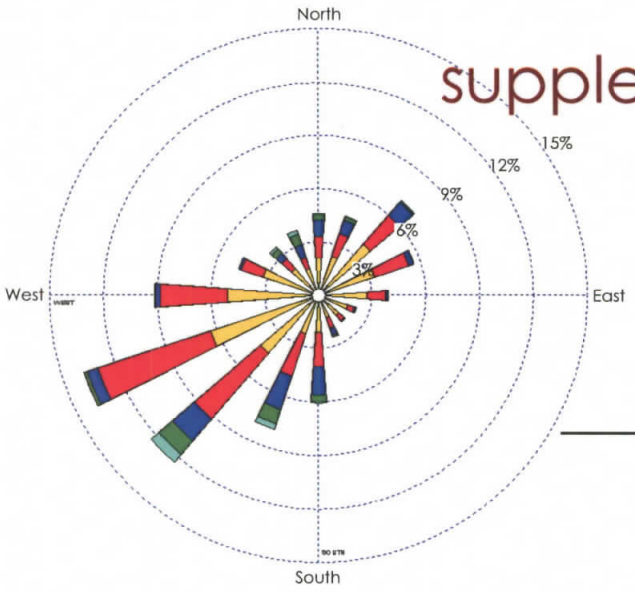
supplemental figures
wind roses

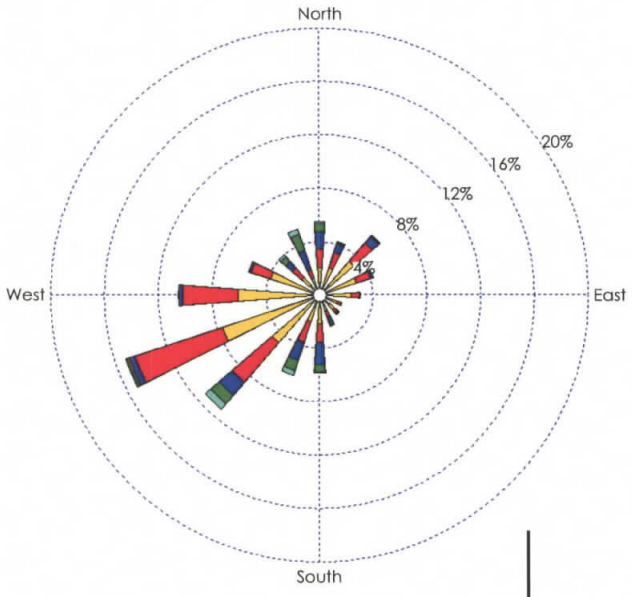


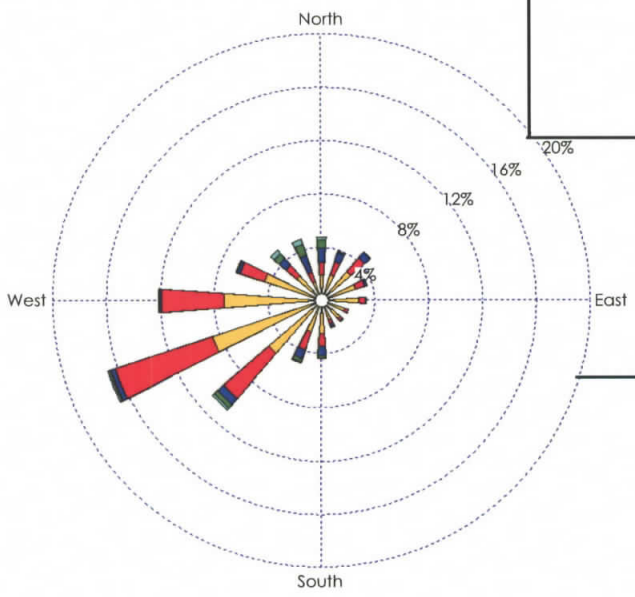
supplemental figures
wind roses

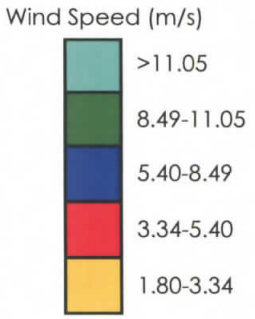


supplemental figures
wind roses









October
November
December