SENSORIUM

by yoeldi irizarry

SENSORIUM

THE SUM OF PERCEPTION

by yoeldi irizarry

Thesis submitted to the faculty of the Virginia Polytechnic Institute and State University
in partial fullfilment of the requirements for the degree of

Master of Architecture
in
Architecture

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ABSTRACT

We live in a world full of stimuli. We can see, smell, feel, taste and hear because stimuli surrounds us. However, when we are conceived in the womb of our mothers we are formed with no senses. During that time we are totally isolated from our environment. Interestingly enough senses start to develop only after 8 weeks of fetal development, touch being the first one to mature. Smell, taste, hearing and sight appear later on. Humans connect to their surroundings through senses, and as these senses start developing in our bodies our brain starts applying them to perceive our environment.

Through our senses we are able to interact with our environment and we are able to learn, pass on knowledge, and form, create and treasure memories. It is because of our senses that we can enjoy the beautiful colors of autumn, the balmy breeze of late summer days, or the avian symphony of spring. Each sense is like a link through which we connect our inner self with the outside world and allows us to uniquely experience each setting. However, when one or more of the senses is missing, those links are broken and the outside world is perceived very differently from individual to individual. Experiencing the built environment is no different. Since buildings are usually designed with a fully sensory individual in mind sensory-impaired populations typically find it difficult to navigate or make use of the spaces the building offers.

The following pages of this thesis demonstrate the universal access system as a tool for those who lack one or more of the senses in order for them to fully enjoy and use the spaces in the same way any fully sensorial person can. Another important aspect, which is explored architectonically, is the aspect of social inequalities, which many handicapped individuals face on regular basis as users of a building.

GENERAL AUDIENCE ABSTRACT

This thesis explores the concept of inclusive architectural design. This is a concept in which buildings are designed in ways where all people can utilize and experience the spaces inside and outside of the building in the same way, regardless of physical condition. A design paradigm is presented as an approach at solving the social injustice against physically challenged populations present in today's architecture, using a public library as a case study.

It is also demonstrated that architectural inclusivity can be achieved with simple and minor changes to the design. No expensive or technologically sophisticated additions are required. However, having all users in mind, disabled and not disabled, during the design process is paramount. This can translate into aesthetic and building shape tradeoffs, for the benefit of all.

Readers of these pages will be able to examine the design process for such a building and the resulting library for all.

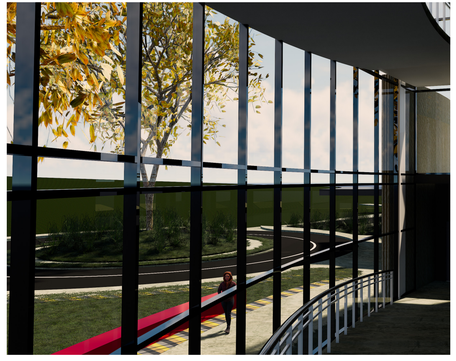
INSPIRATION

This study was inspired by human struggles, but particularly two personal experiences that truly inspired me along this journey.

During the fall of 2014 I suffered a facial paralysis, also known as Bell's palsy. This neuropathy is characterized mainly by muscle weakness that occurs in one side of the face. Nevertheless, the drooping of my face and crooked appearance was the least of my concerns. What really caused me distress was the sensory abnormality that came with the condition. Besides having no control whatsoever over my right side of the face, my taste, vision, hearing and smelling from that side were heavily impaired. Recovery was, for the most part, complete and probably only a few could tell today that I suffered from a Bell's palsy a few years ago. However, my right eye never fully recovered and might become a reminder of that episode for the rest of my life.

The second motivation is my mother. My mom is a wonderful cook who unfortunately started losing her sense of smell a few years ago. Anosmia is a relatively common condition that could potentially be dangerous, and directly affects the sense of taste also, making food less appetizing. In addition, Anosmia also affects the ability to create memories, since smell is the sense closest to memory.

My past experiences with sensory impairment and those of my mom, made me reflect on how people with more profound disabilities deal with everyday life. It also made me ponder on how the lack of one or multiple senses transforms the way we use and experience the built environment in a world designed for fully capable individuals.



DEDICATION

To God Almighty, Architect of the heavens and the earth, who by His mercy brought me here. Thank you Father for giving me life, strength, hope and all the countless blessings I have received.

To my dearest and unconditional husband, who strongly held the fort throughout his very long and sometimes difficult journey. Without you this would not have been possible. Without you this would not have made sense. I love you with all my heart.
I love you with all my senses!

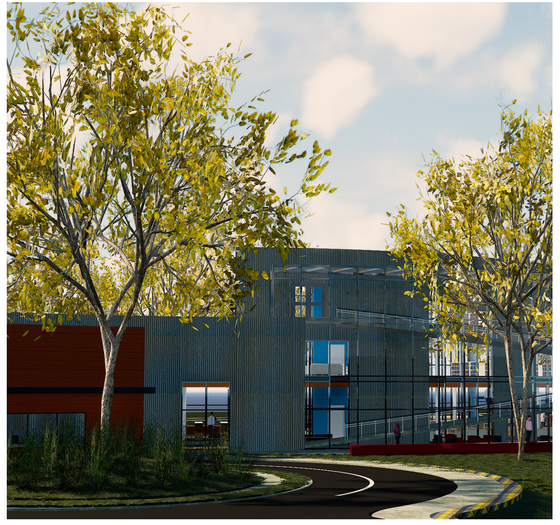
ACKNOWLEDGEMENTS

To my committee, for walking with me through this journey. Marcia, thank you for your guidance, sage advice, patience and persistence. Paul, thank you for your encouragement and for giving me the confidence to keep pushing forward. Susan, thank you for not sugar-coating your opinions and being honest and true in your critiques.

To my WAAC friends. Thank you for making me feel as part of a family and for your support during the crazy last day of the semester.

To all of the professors that have shaped me in one way or another during all these years of study, and the institutions that made this possible. To my AACC professors who gave me a solid architecture foundation, and to AACC who gave me the first opportunity to become an Architect. To my Morgan State professors who pushed me to become the best that I could be, and to Morgan State University for giving me the tools to become a true professional. To my WAAC professors who allowed me to experience the artistic aspect of architecture more intimately. And finally, to the WAAC which guided me to find a better architect in me and the artist I did not know existed. Diversity is your strength, don't ever lose it.
To all of you, thanks! You are part of this.

And a special acknowledgement to Kathleen Lechleiter for believing in me, for being a great boss, an awesome mentor and a great friend. Thank you for your teachings, advice and all those happy moments. I will definitely miss those summers with the RE/PUBLIC gang!



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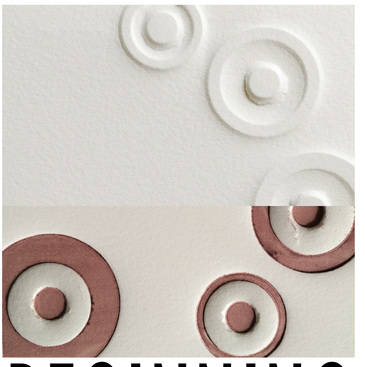


BEGINNING

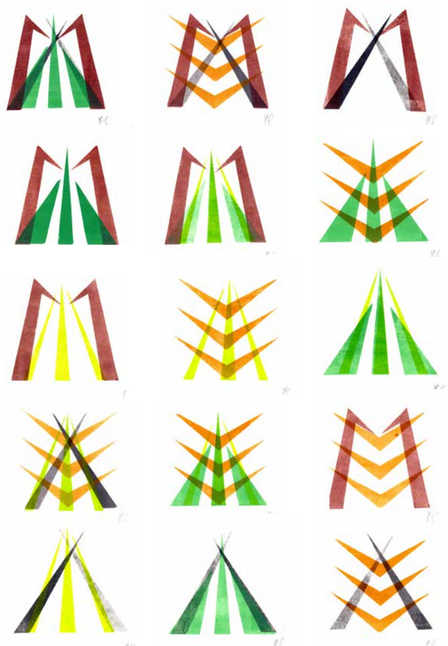

touch


taste


smell


sound


sound



PRINTMAKING

Sensorium I
press, oil on somerset
2016

The first part of this thesis explores senses in a deeper manner and studies how our senses work as a whole, connecting us with our environments, to explore, learn, teach and create. This was done through a series of printings exploring "the language of the senses".
The first series is composed of five printings of five symbols, one for each sense. Later on the series was developed further by overlapping a combination of the original symbols resulting in a mixture of senses. The purpose of this exercise was simple: to graphically show the beauty of the sensorium, or the mixture of senses, even if only two senses are present in the combined work.

Sensorium II
blind embossed on somerset (side 1)
registered deboossed, oil on somerset (side2)
2016

In the second series of Sensorium, I explored going beyond the two dimensions. The first series was full of color and complexity, but I realized that it was not inclusive of everyone, particularly blind persons. Therefore, the second series concentrated on touch and sight using blind and registered embossing.

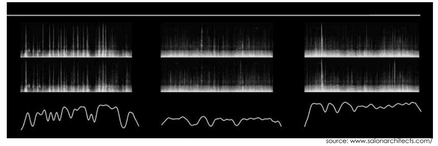

RESEARCH

AUGMENTED STRUCTURES
Istanbul | Turkey


source: www.salonarchitects.com/


source: www.salonarchitects.com/

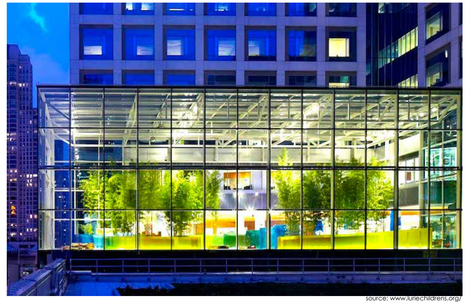

source: www.salonarchitects.com/ source: www.salonarchitects.com/


source: www.salonarchitects.com/

The "Augmented Structures v1.1: Acoustic Formations / İstiklāl Caddesi" exhibition by Salon2 in Istanbul, Turkey is a playful combination of media, math and architecture to produce a multi-sensorial experience on the spectator. By combining lights, music, sound and architecture the artists provoke a sense of change and continuous development on the building, while looking ahead at the future.

This installation can be experienced by any individual who possesses at least one of the senses. For example, if only the sense of touch is present the sound can also be sensed through the vibration produced by the sound.

CROWN SKY
Illinois | United States


source: www.luriechildrens.org/

source: www.luriechildrens.org/


source: www.luriechildrens.org/


source: www.luriechildrens.org/


source: www.luriechildrens.org/

Crown Sky Garden is a rooftop sanctuary designed by landscape architecture firm Mikyoung Kim Design and built on top of the Lurie Children's Hospital in Chicago. This garden makes use of a variety of materials and colors, interactive spaces, and lighting and shading techniques to produce an immersive space that encourages exercise and social activity.

The multiple materials, such as bamboo, water, marble, resin, and others enhance the experience with a unique blend of smells, sounds, textures and surface temperatures.


source: www.luriechildrens.org/

CROWN SKY GARDEN

COGNITIVE RESTORATION

IS SPEEDY IN SENSORY RICH ENVIRONMENTS

CORPORATE VOLUNTEERS

650

THROUGH ACTIVITIES AND EVENTS

VISITORS PER DAY

2000

EITHER IN OR IN CLOSE PROXIMITY TO THE CROWN SKY GARDEN

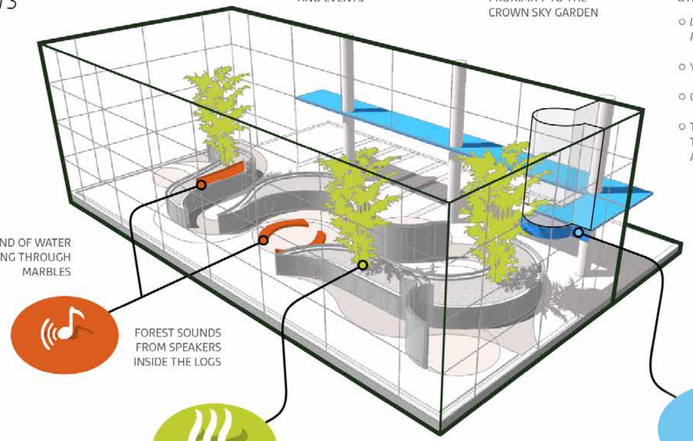
MUSICAL EVENTS

150

CIRCLES OF MUSIC AND OTHER PERFORMERS:

- *Lyric Opera of Chicago's Pirates of Penzance*
- Yo-Yo Ma
- Chicago Ideas Week
- Theme Day Visits From The Shedd Aquarium And Field Museum

GARDEN OFFERS AN INTERACTIVE AREA OF LIGHT, WATER, AND COLOR, A PLACE OF DISCOVERY AND INNOVATIVE ENGAGEMENT



SOUND OF WATER RUNNING THROUGH MARBLES

FOREST SOUNDS FROM SPEAKERS INSIDE THE LOGS

A SLIGHT GREEN SMELL FROM BAMBOO PLANTS

SPECTACULAR VIEWS FROM THE 12TH FLOOR

Ann & Robert H. Lurie Children's Hospital of Chicago®

source: www.luriechildrens.org/

CROWN SKY GARDEN

REDUCING STRESS

CONTROL OF ENVIRONMENT REDUCES TENSION

NATURAL ELEMENTS PROVIDE COMFORT AND SECURITY

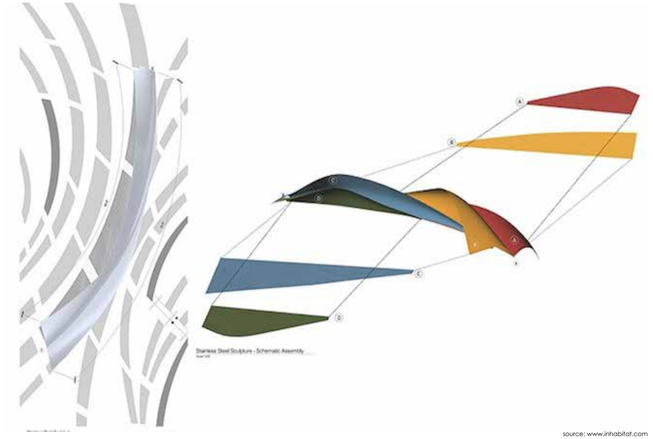
GENTLE MOVEMENT PROVIDES SOOTHING EFFECT

Ann & Robert H. Lurie Children's Hospital of Chicago®

source: www.luriechildrens.org/

EXHALE

North Caroline | United States



source: www.inhabitat.com

source: www.inhabitat.com

source: www.inhabitat.com

source: www.inhabitat.com

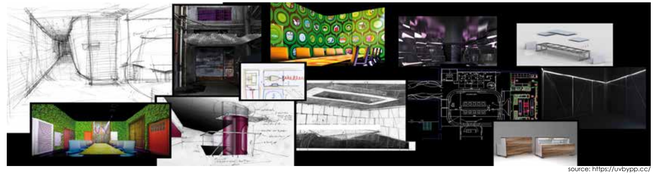
source: www.inhabitat.com

This simple art installation in a park in Chapel Hill, North Carolina by landscape architecture firm Mikyoung Kim Design is a fusion of smells, cold and hot vapors, colored lighting, shapes, textures and music. "Exhale" combines all of these elements to interact with visitors producing a stimulating experience.

ULTRAVIOLET

Shanghai | China

source: https://uvbypp.cc/

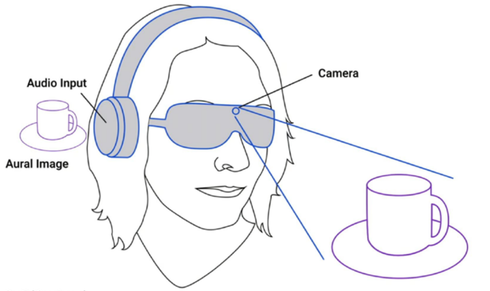


source: https://uvbypp.cc/

source: https://uvbypp.cc/

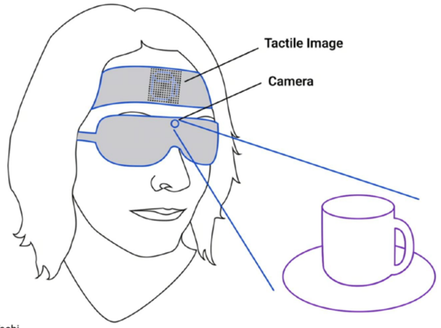
"Ultraviolet" by Paul Pairet is a restaurant in Shanghai, China, where the taste of the food served is enhanced by psychologically manipulating sight, sound and smell. The result is a one-of-a-kind multi-sensory experience in which each dish is accompanied by a corresponding atmosphere.

The loss of one sense does not equate to the loss of the capability to process that particular information or stimulus. Studies have shown that typically the atrophy occurs in the peripheral component. In other words, it is only the sense organ that acquires the stimuli from the outside world to the central nerve system that is affected. All of the other central mechanisms, related to the sense, that are used to process the stimulus are intact and ready to translate information. Scientist argue that the brain is flexible and powerful enough to be trained to change the sense organ it uses to absorb a particular information from the outside world.



Leslie Kay - Spatial Sensing Lab

source: www.ted.com by David Eagleman



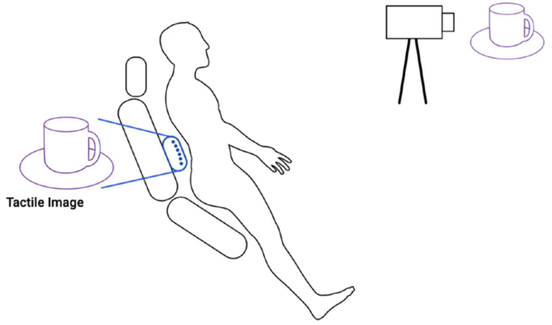
Kajimoto, Kanno, Tachi

source: www.ted.com by David Eagleman

For example, in the images above, a blind person receives the information the camera captures by translating the image into sounds or electrical impulses which the person is sensible to. These sounds or electrical impulses that the person can hear or feel, are eventually translated by the brain into signals that allow the person to actually "see" what the camera has captured.

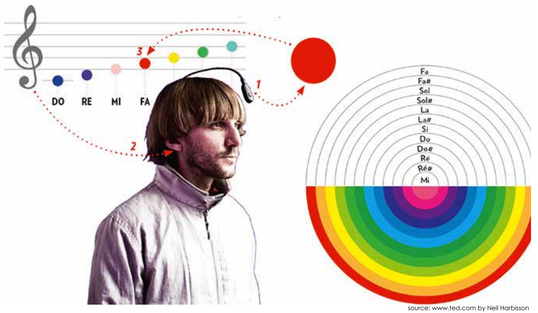
"Sensory substitution can occur across sensory systems, such as touch-to-sight, or within a sensory system such as touch-to-touch. In one experiment, the touch sensory information via a glove containing artificial contact sensors was coupled to skin sensory receptors on the forehead of a person who had lost peripheral sensation from leprosy. After becoming accustomed to the device, the patient experienced the data generated in the glove as if they were originating in the fingertips, ignoring the sensations in the forehead"

"Sensory substitution and the human–machine interface" by Paul Bach-y-Rita



source: www.ted.com by David Eagleman

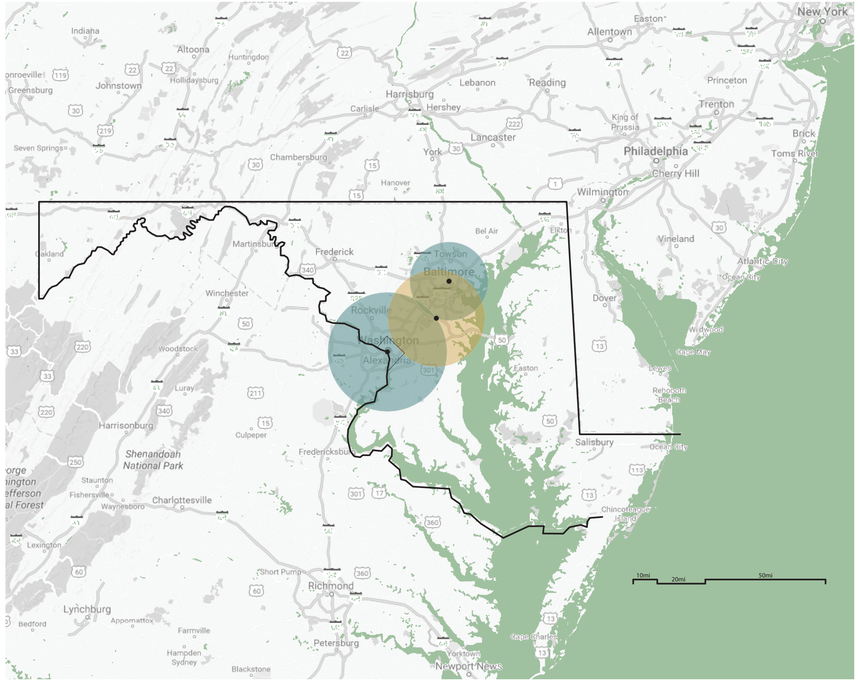
The image below shows a successful sensory substitution system. Neil Harbisson was born with achromatopsia, a medical condition which causes color blindness. He created a device that captures the different shades of color and assigns a note to any particular shade. Harbisson trained himself to discern the notes being played by the device and can now tell the shades apart by just listening to the audio generate by the device.



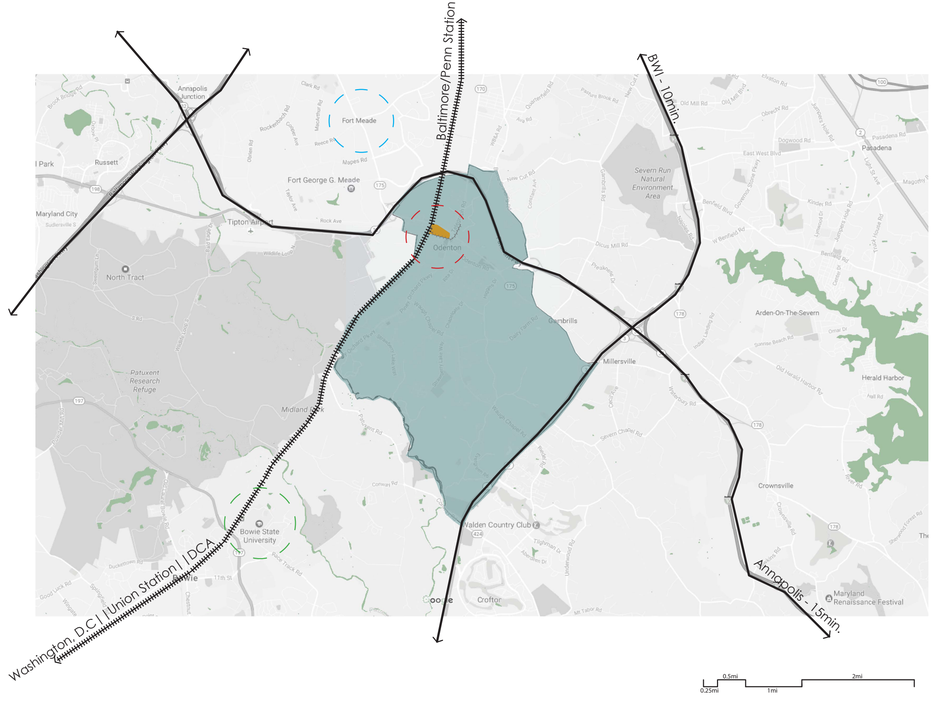
source: www.ted.com by Neil Harbisson

These studies and experiments show only small examples of what humans are capable of, thanks to sensory substitution. Looking deeper into these studies made me realize how someone could have a complete experience of a space or environment, regardless of having all senses or not.

SITE

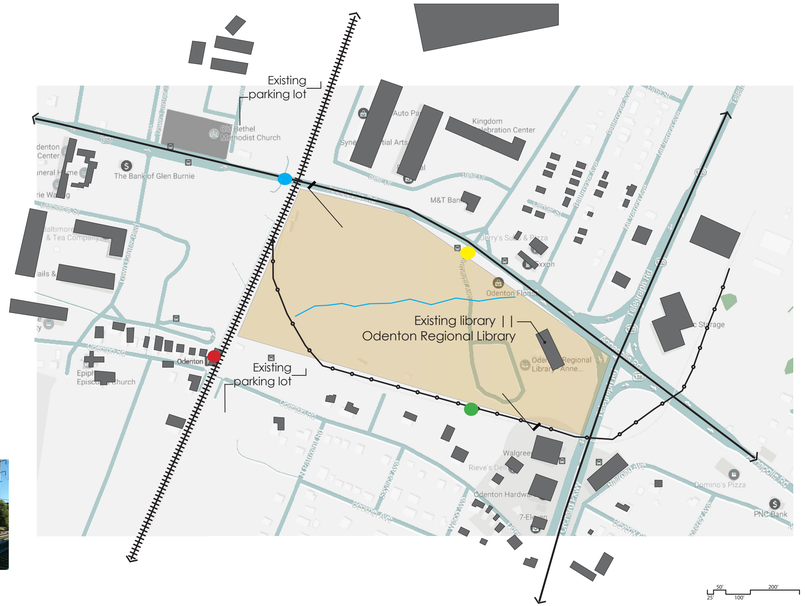


The site is located in Odenton, Maryland. Well connected to the commuter train, it is a twenty-minute drive to downtown Baltimore, and a fifty-minute drive to downtown Washington, DC. The county branch library is currently located at this site. Its proximity to various educational institutions makes this library a popular resource among the community.



-MARC Station
-Fort Meade
-Bowie University

Even though the site is not located in the center of any major city, its connectivity to public and private transportation makes it easy for anyone to visit the library.
The site is bisected by a rail line that includes a popular commuter train station. This station gives easy access to major transportations hubs like Pennsylvania Station in Baltimore, Union Station in Washington DC, and one of the majors airports in the area, the Baltimore/Washington International Thurgood Marshall Airport (BWI), which is also accessible by car in 10 minutes.



● Looking from MARC Station to the site

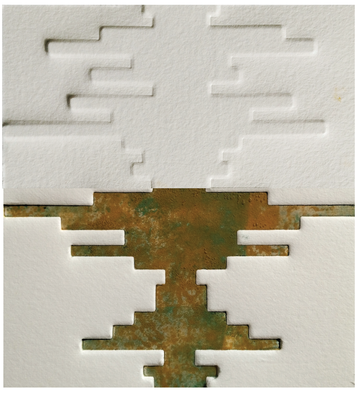
● Connection under the bridge, across the street

● Abandoned railroad used by the locals as walking trail

● Main entrance to existing site

The site has two other important fixtures which became design constraints through the design process. The first one is the steep topography throughout the site. The existing library and the parking lot is located in the flat side of the lot. The main entrance is located at the lower side. From that point on the topography of the site begins elevating towards the north-west portion of the site.

The second fixture/design constraint is a wetland which crosses the site diagonally from its upper eastern portion to the lower western side. This wetland divides the nearly rectangular-shaped site into two right triangles.



DESIGN DEVELOPMENT

As designers of buildings, we strive to make the entrance a preview of what is about to happen once you get inside. As users of a space the experience starts before we even get into the building but as we approach it. However, this entrance is rarely conceived as an accessible access point. Accessibility is usually an afterthought, and is typically provided to be able to comply with ADA regulations. The resulting ADA-compliant ramp usually ends up being allocated in some suboptimal location of the building, thus depriving the handicapped visitor from the same inceptive experience a non-handicapped person would have.

As another design constraint, I strived to design this public library from the point of view of four characters, which are based on real people that I have met or known about. These characters represent a wide range of physically-challenged people. In addition to being universally accessible to anyone without requiring assistance, the building is also an exploration of the concept of having means of egress and entrance that are available to any user of the building, and not special accesses for handicapped populations.

YOLI - ANOSMATIC

My beloved mother, Yolanda. Early in her life she learned to cook, and has been cooking since. Throughout the years she has become a very good cook. Today my mom is losing her sense of smell which also translates into the loss of taste.
This loss also affects her memories since smell is the sense that is closer to memories. I know there are many memories that my mother is not able to recall because there is almost no sense of smell to trigger them.

DUSTY - BLIND

Dusty lost his sight at a very young age. He says he has no memories of what is to see. However, he knows for sure how the world "looks" through the eyes of a blind person.
The world is designed for the sighted and this represents a challenge for Dusty. He feels very lost when he has to travel through the center of any space unfamiliar to him; therefore he prefers to stay in the periphery. This forces Dusty to miss out the opportunity to experience the whole space without assistance.

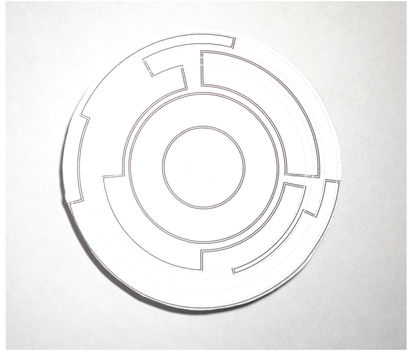
OMA - DEAF

Oma was born deaf. I do not know a lot about his story, but I am aware of some of the challenges he encounters everyday as a deaf person. His biggest concern, when in an indoor space, is getting disoriented easily when there is not a point of reference or a wide visual range available.

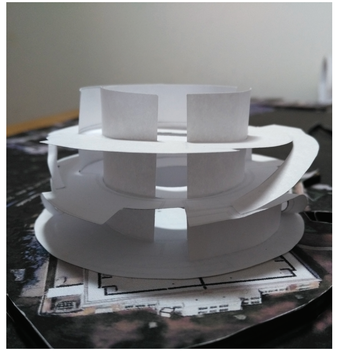
CHRIS - HANDICAPPED

After a motorcycle accident at the age of 25, Chris lost his ability to walk. As an architect himself, the way he experiences known spaces is completely different from before.
He misses being able to use the same entrance and vertical circulation means that everybody else uses.

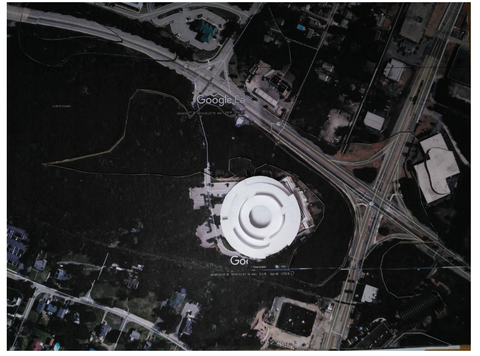
I developed my first study model with the users in mind and taking as inspiration one of the printings I did during the exploration phase.



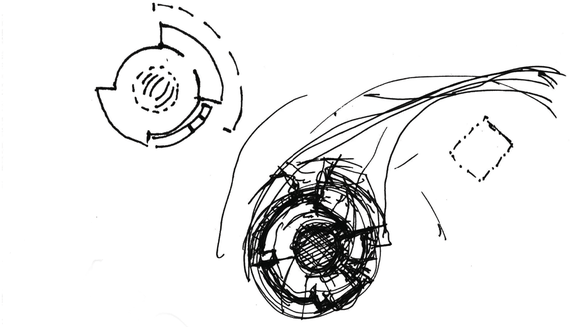
First model implementing a ramp system as vertical circulation with no stairs, providing the same means of access to everyone that Chris misses so much. Also Oma prefers a smooth path instead of stairs.



A circular building seemed to be the ideal solution for all of my users. It would provide the visuals from its center that Oma and Yoli would need, and It would accommodate the ramp for Chris and Dusty.



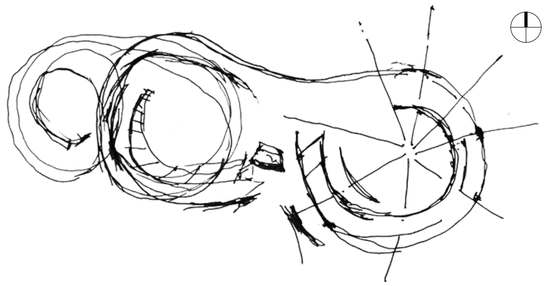
This initial study was not only about shape but also about location. Since the site's topography is so irregular, my first instinct was to locate the new library on the same place the current library is located, therefore taking advantage of this existing flat surface.



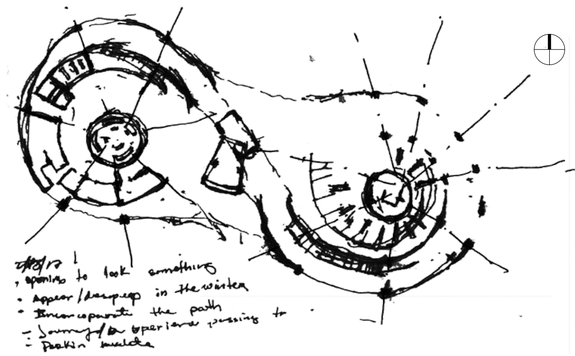
The project started to evolve from a singular circular-shaped tower to a multiple-tower design as I was trying to look for more freedom and more space.

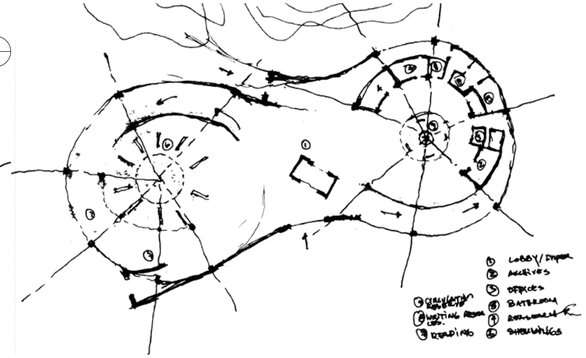
ITERATION 1

During the development of the first study model I discovered that a singular circular-shaped building, which has its circulation in the periphery, could become confusing for its users. Consequently, in the next series of iterations I started exploring the idea of breaking up the circular shape looking for clearer way findings for all of my users.



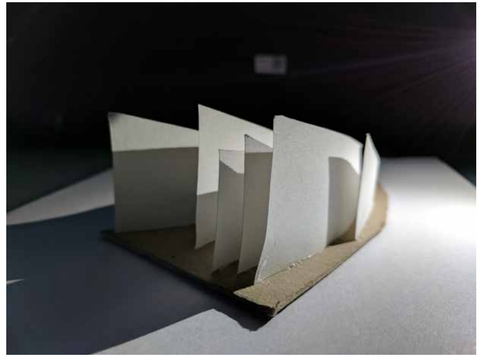
Expanding the circular shape into a more elongated footprint also allowed me to explore the development of more ground surface on the site. I started wondering if the location of the existing library, even though flat, was the ideal location for this new building.





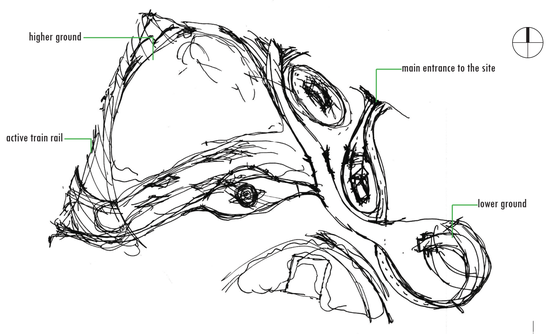
ITERATION 2

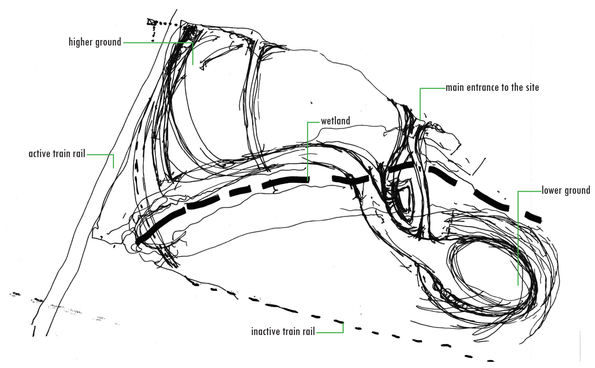
After exploring the possibilities of a new location for the building during the first iteration of the design process I realized that the building could be a connecting point between the two sides of the site formed by the wetland. It could also become a space that bridges the lower eastern portion with the higher ground on the western side.



ITERATION 3

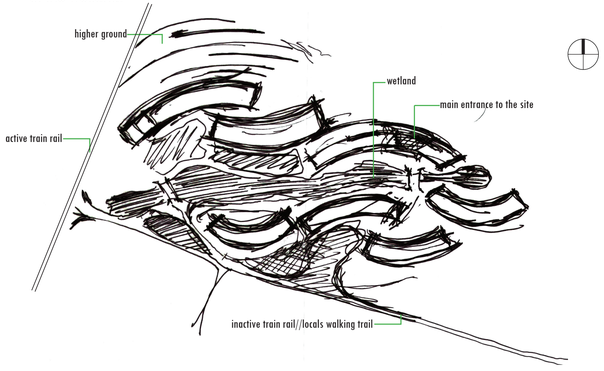
The two sketches presented here are a very rough starting point for my final project. Here I started experimenting with the whole site, trying not to limit myself to only the flat portion where the existing library is located. This exercise gave way to ideas for site integration through the building.





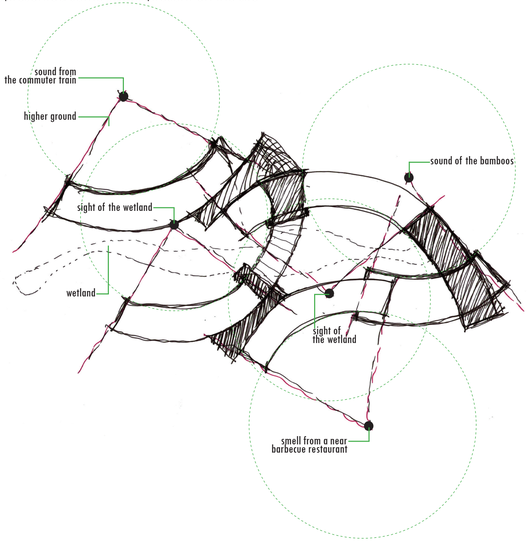
ITERATION 4

From circular plan to meandering plan. This iteration became the backbone of my project. During this study the shape of the building was completely broken up and I explored the concepts of having the program in one level, for easy accessibility, and using most of the land available in the site. The building would be distributed to the north and south of the wetland.



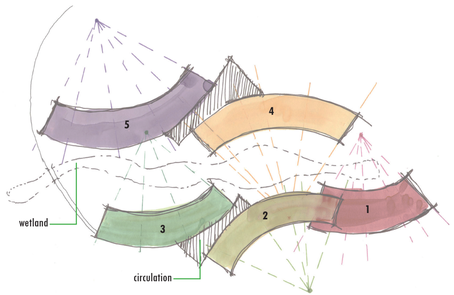
ITERATION 5

This design iteration resulted in a reduction in the number of buildings. Five buildings, one for each sense, made up the complex. The buildings would radiate from a point which represented some stimuli present on the site.

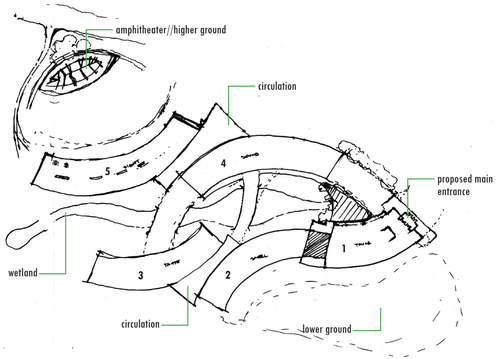


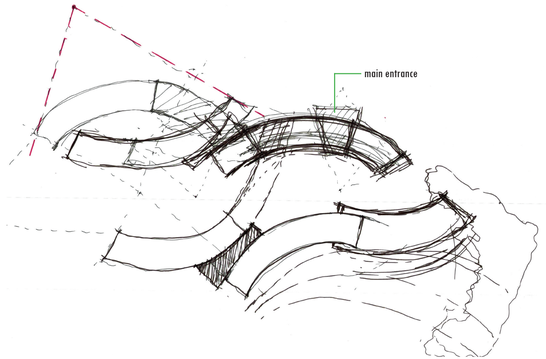
ITERATION 6

In this serie of iterations I studied buildings embodying senses, as opposed to buildings that responded to a radiation point that represents a stimulus or sense.

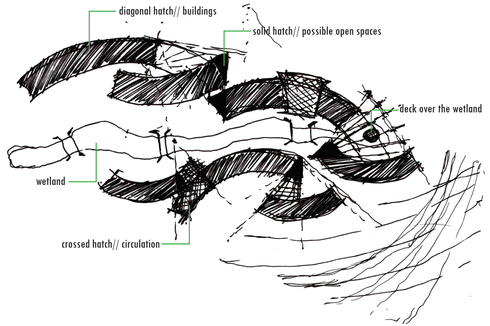


1 Touch **2** Smell **3** Taste **4** Sound **5** Sight





This diagram explores moving the library's entrance to the entrance of the site versus keeping it at its current location.



Analysis of buildings and circulation between buildings.

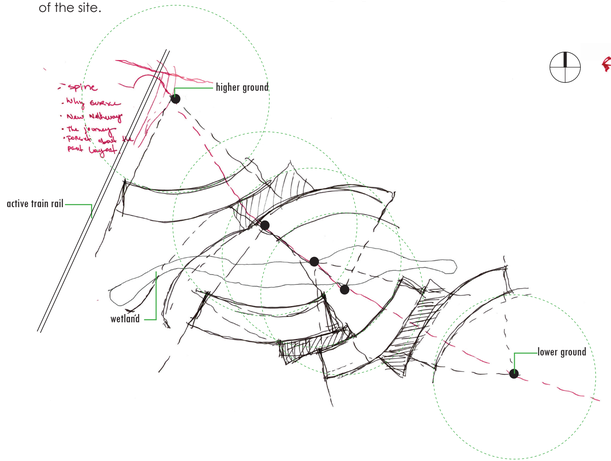
1 Lobby and books circulation
2 Reading Hall
3 Circulation between buildings
4 Cafe// Computers
5 Cafe Deck
6 Conference room
7 Amphitheater Extension

ITERATION 7
At this point in the design development it was established that no parking spaces would be provided on site and users would use the existing parking lots to the south and north of the site. The promenade from the parking lots to the venue will become part of the experience. The existing inactive railroad and the proposed walking trail system will be used as feeders to the the buildings' entrances.

0 Entrance Plaza
1 Lobby and book circulation
2 Reading Hall
3 Circulation between buildings
4 Cafe// Computers
5 Cafe Deck
6 Conference room
7 Amphitheater Extension

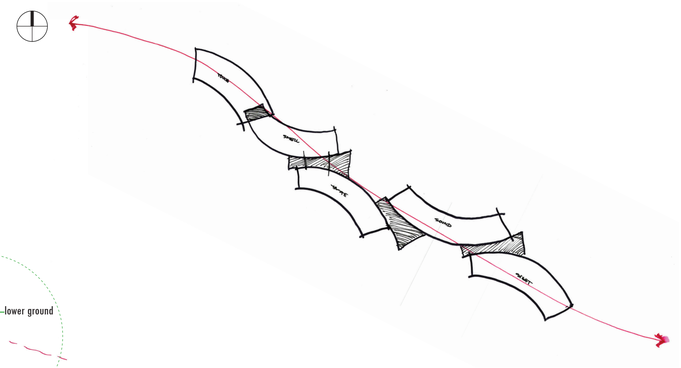
ITERATION 8

This iteration is about organizing the stimuli points in a diagonal line. This organization represents the bridge which will connect the higher ground with the lower ground of the site.

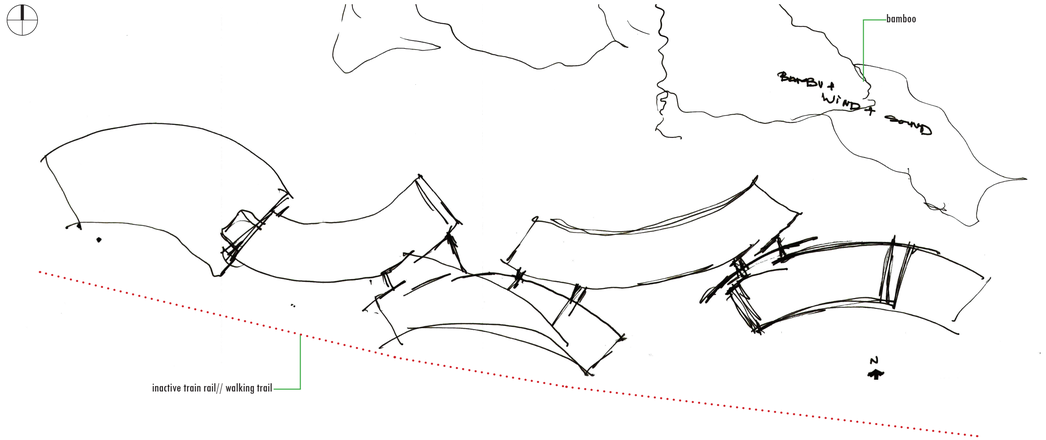


ITERATION 9

Re-arranging the volumes along the diagonal path generated from the previous iteration gives birth to a cleaner and clearer footprint.



Also, in this iteration the proposed main entrance is on the south elevation of the site. This allows taking advantage of some resources and elements already present on that section of the site. One of these elements is an abundant plantation of bamboo, which offers a unique visual and sonorous experience to passersby. Also included is the inactive railroad.

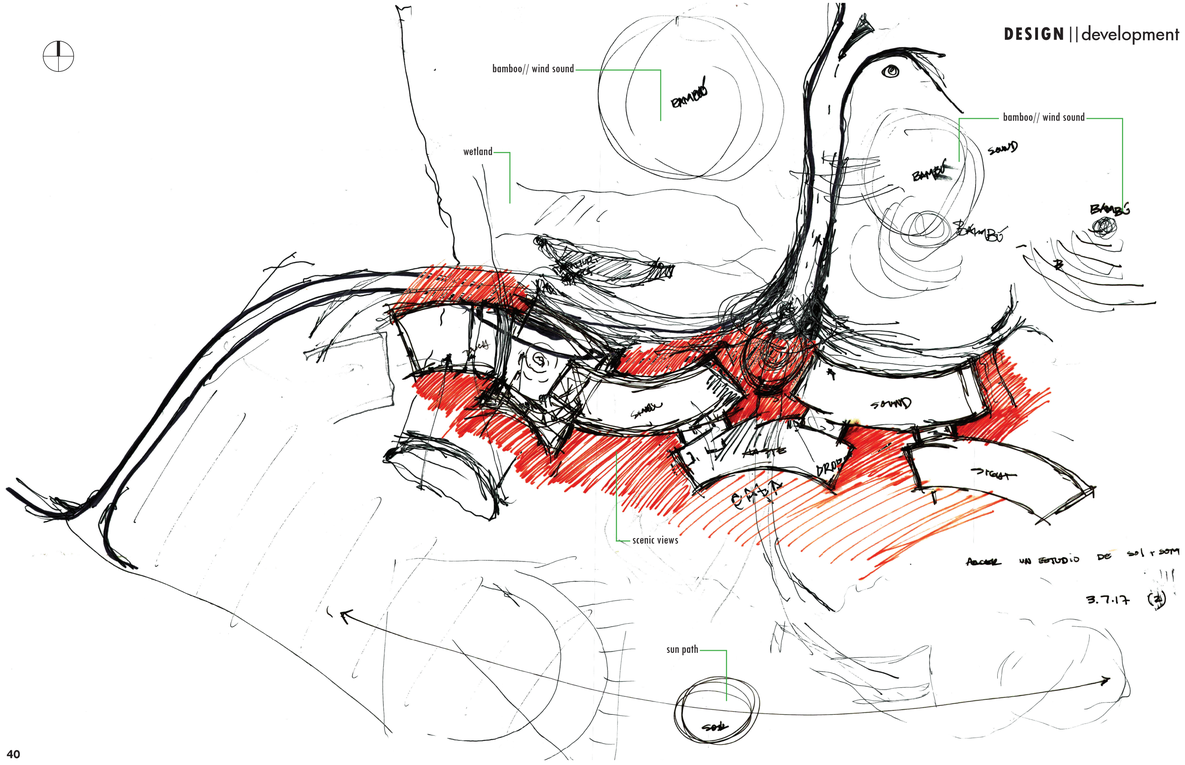


ITERATION 10

The program stays the same in this iteration but the building is mirrored, thus exploring the concept of utilizing the inactive railroad as the main user feeder.

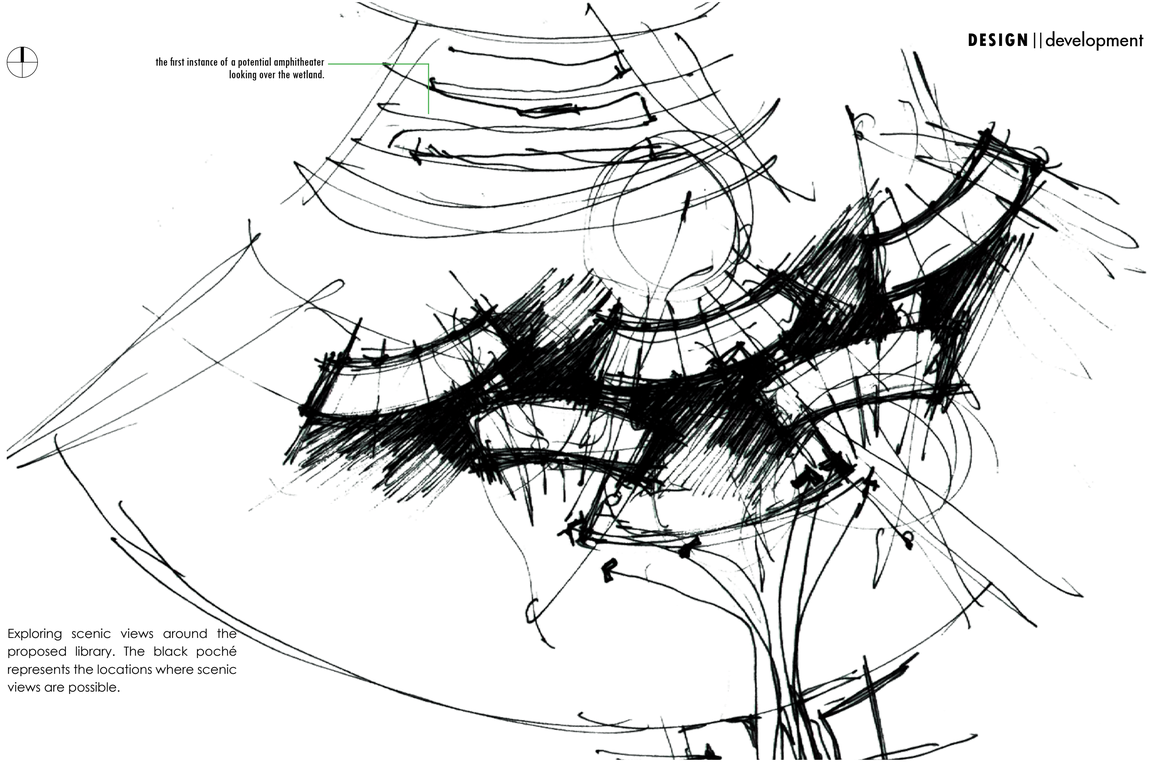
ITERATION 11

The scale and location of the building changes. After careful study and analysis, I came to the conclusion that the existing library's location is not the ideal location. This new location gives the building greater exposure to the existing stimuli on site.

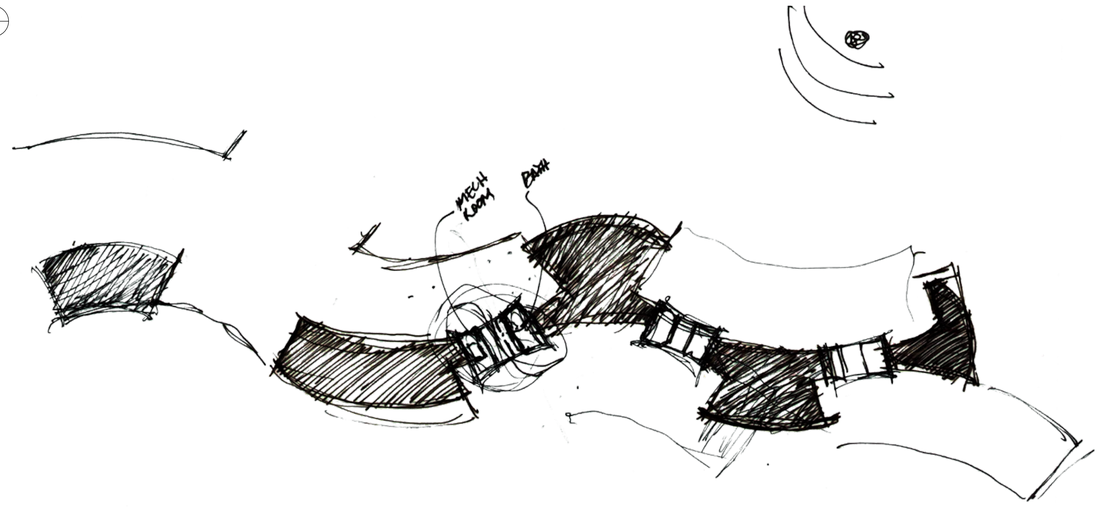


ITERATION 11: STIMULI STUDY

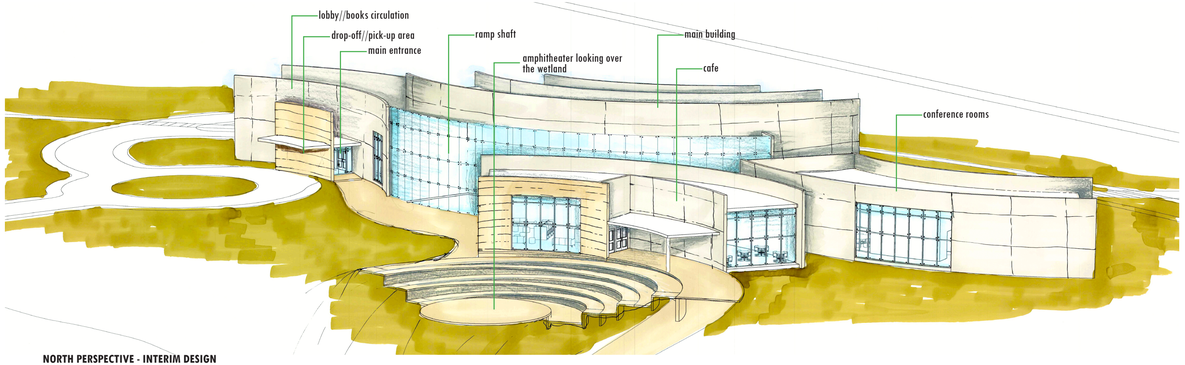
Study of the stimuli on the site. This study helped me to better position the building to take advantage of what the site has to offer.



Exploring scenic views around the proposed library. The black poché represents the locations where scenic views are possible.

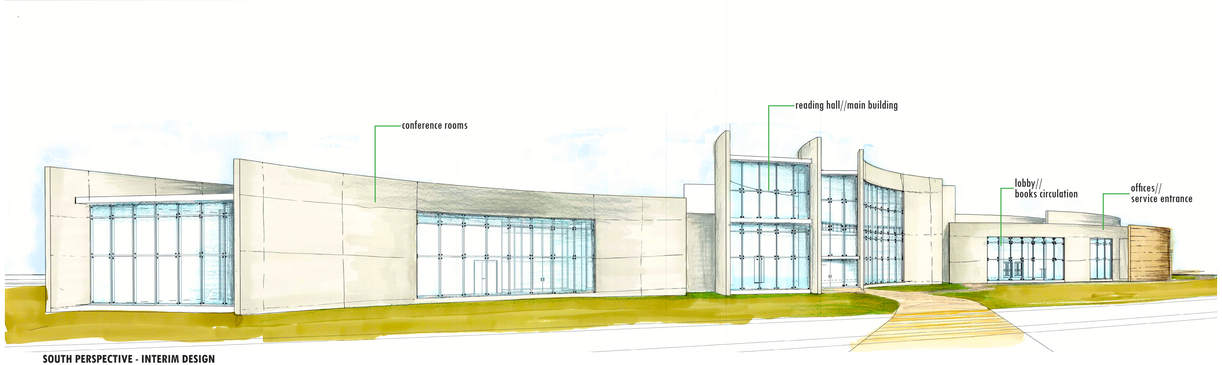


Study of possible entrance to the building. The poché represents the open spaces between building and potential entrance locations.



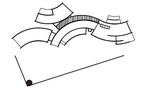
NORTH PERSPECTIVE - INTERIM DESIGN

The final shape of the building was totally dictated by the floor plan. All the effort put into the floor plans development translated into the volumes which contributed the final shape to the library.



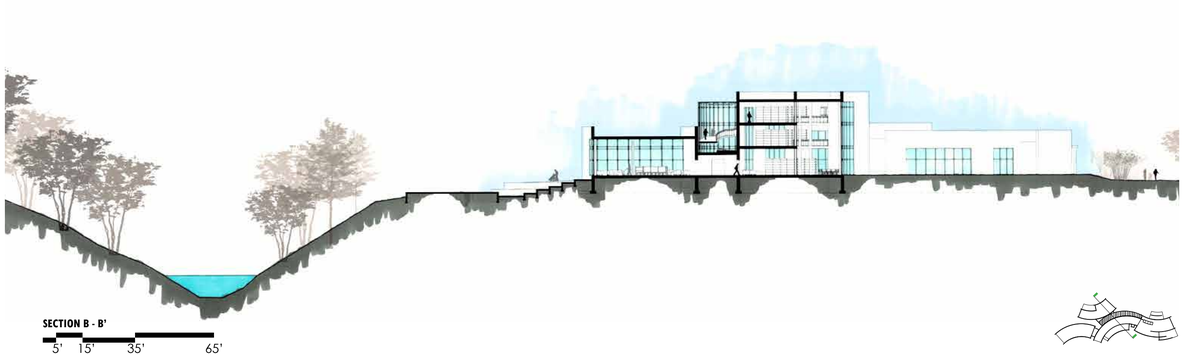
SOUTH PERSPECTIVE - INTERIM DESIGN

The decision to add a new floor was made during the elevations development. At this point of the process the ramp is reincorporated into the design.



SECTION A - A'

5' 15' 35' 65'



SECTION B - B'

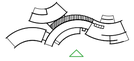
5' 15' 35' 65'

NORTH ELEVATION

5' 15' 35' 65'

SOUTH ELEVATION

5' 15' 35' 65'



EAST ELEVATION

5' 15' 35' 65'

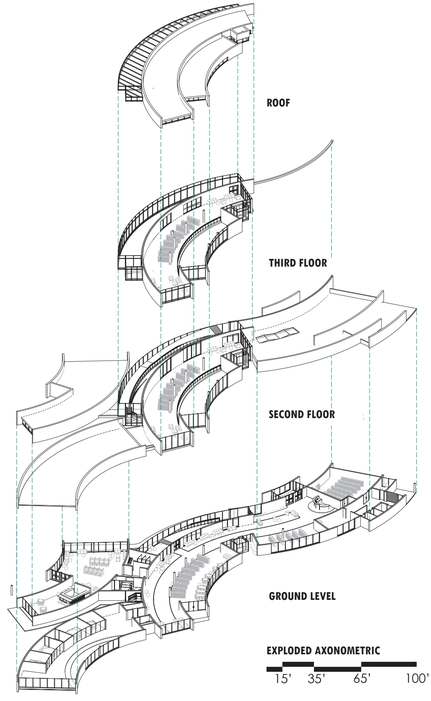
WEST ELEVATION

5' 15' 35' 65'

PROPOSAL

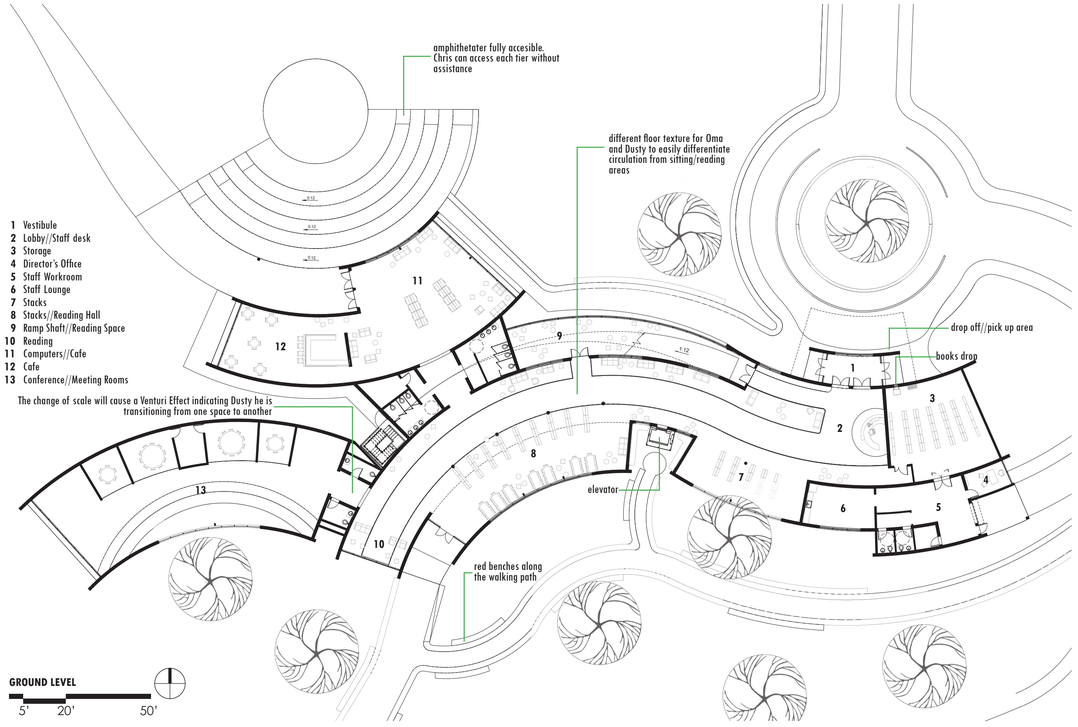
SENSORIUM
THE SUM OF PERCEPTION

The final result is a simple-shaped building with a meandering floor plan. This shape simplifies circulation and makes it easy for anyone to find their way around.
The small details incorporated into this project, meant to facilitate the usage of the building, is what sets it apart from other buildings and gives it merit. They provide equality among all users and empowers people with or without disabilities to fully experience and enjoy all spaces.
This project began as a circular building in a search on how to accommodate a ramp. From that initial concept the only element that remained was the ramp. The ramp became an essential element of this project and the main vertical circulation mean.
Through this ramp Chris can move freely, without assistance, from floor to floor using the same means as everybody else.
The ramp's scenic view, allows Yoli, who can not smell the trees or flowers, to see and enjoy them from the inside of the building and know they're out there.
The ramp's all-structural glass enclosure allows Dusty, our blind user, to feel the heat of the summer or the cold of the winter. Being able to see the ramp as he approaches the building, and once inside, Oma can use it as a point of reference, which is essential for any deaf person.
The ramp is just a single example of many small, simple features included throughout this library, which makes it appealing and welcoming to everybody. Part of my thesis was keeping this project as simple as possible. I wanted to demonstrate that we as designers can cause significant difference in the lives of people, even with minor details. We can certainly provide freedom, equality and social justice to those who are less fortunate and have some type of physical disability with our designs.
An inclusive design is not about incorporating technology or extravagant shapes. Is about making small, simple and easy changes everywhere.



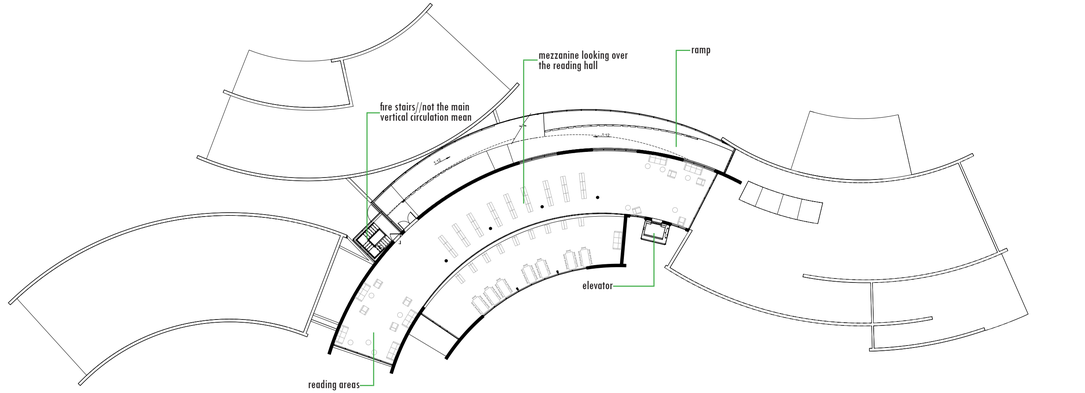
EXPLODED AXONOMETRIC

15' 35' 65' 100'



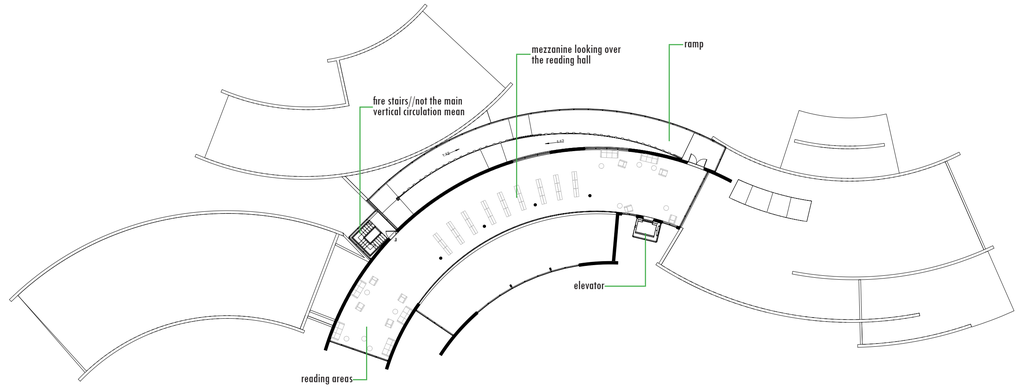
GROUND LEVEL

5' 20' 50'



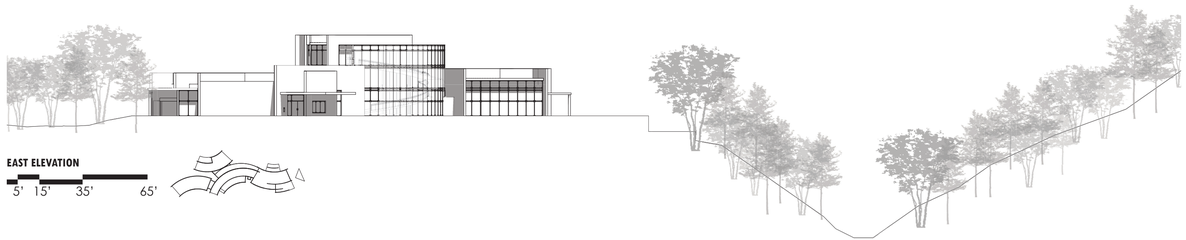
SECOND FLOOR

5' 20' 50'



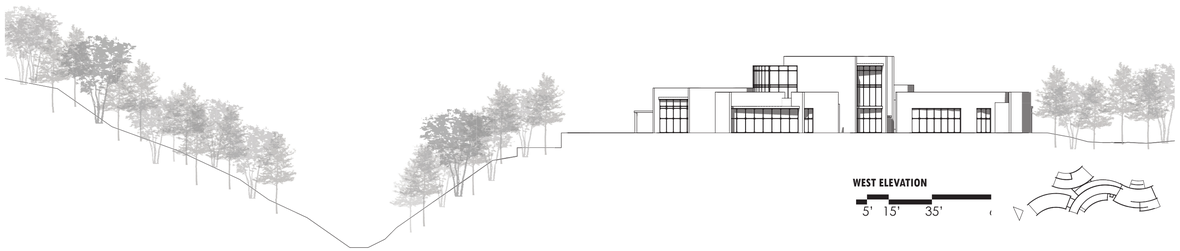
THIRD FLOOR

5' 20' 50'



EAST ELEVATION

5' 15' 35' 65'



WEST ELEVATION

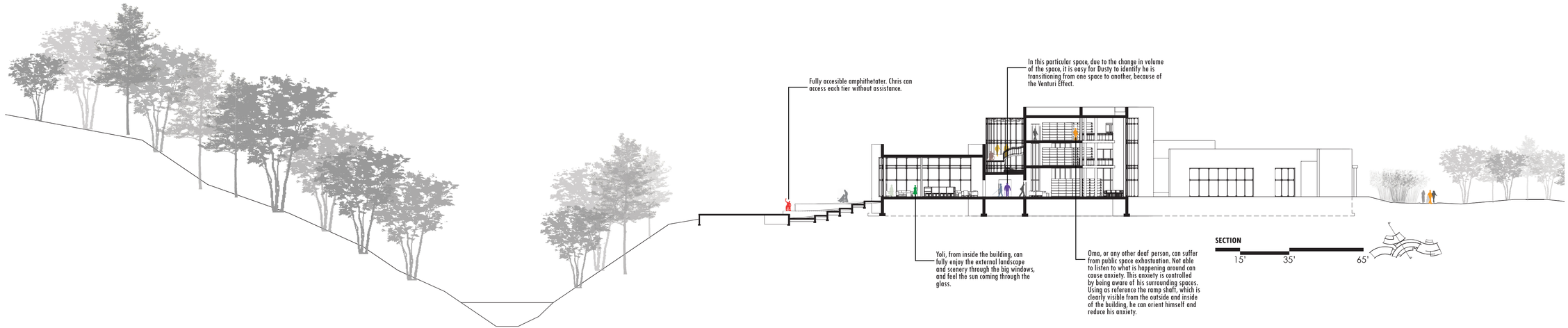
5' 15' 35'

SOUTH ELEVATION

5' 15' 35' 65'

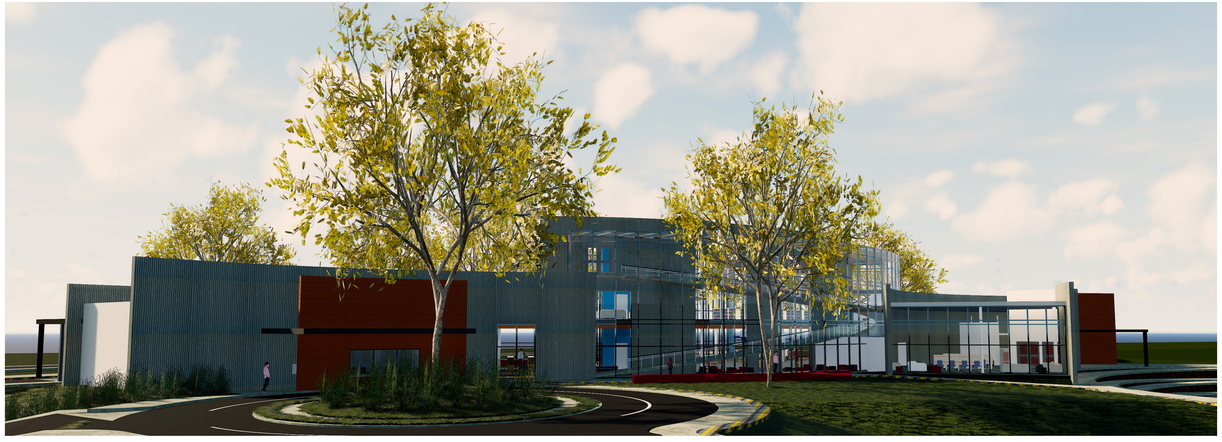
NORTH ELEVATION

5' 15' 35' 65'


Fully accesible amphithetater. Chris can access each tier without assistance.
In this particular space, due to the change in volume of the space, it is easy for Dusty to identify he is transitioning from one space to another, because of the Venturi Effect.
Yoli, from inside the building, can fully enjoy the external landscape and scenery through the big windows, and feel the sun coming through the glass.
Oma, or any other deaf person, can suffer from public space exhastuation. Not able to listen to what is happening around can cause anxiety. This anxiety is controlled by being aware of his surrounding spaces. Using as reference the ramp shaft, which is clearly visible from the outside and inside of the building, he can orient himself and reduce his anxiety.
SECTION
15'
35'
65'

NORTH ENTRANCE

Approaching the building from the main entrance and lower ground at the site. The main entrance is accentuated with red wood, as shown in the left side of the image.

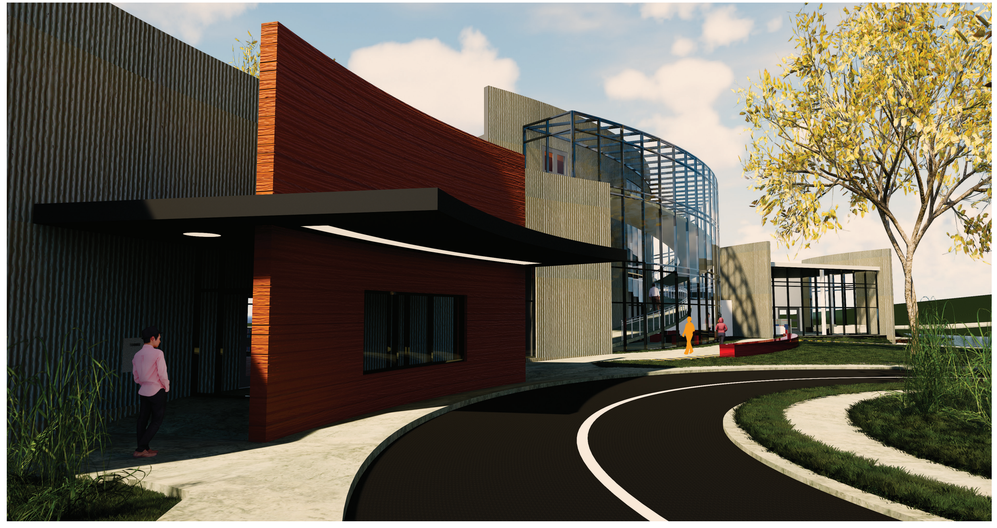


SOUTHERN WALKING PATH

For Oma and Dusty a wide walking passage, free from tripping hazards, is necessary. Different floor textures allow them to differentiate a safe path from a non-safe path.
Oma uses his hands and vision to communicate with others. Therefore, when walking and talking he may not look forward as a hearing person would but might look at his companion.
Although Dusty's disability is different, he also benefits from textured floors which would indicate him either open walkways or obstacles ahead.

NORTH ENTRANCE

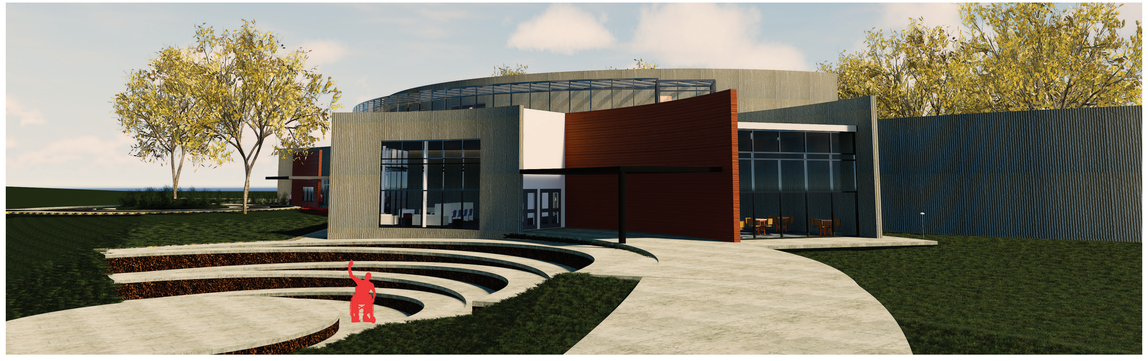
Another perspective from the main entrance showcasing the ramp shaft with view to the wetland. The ramp serves as a beacon for all the users.

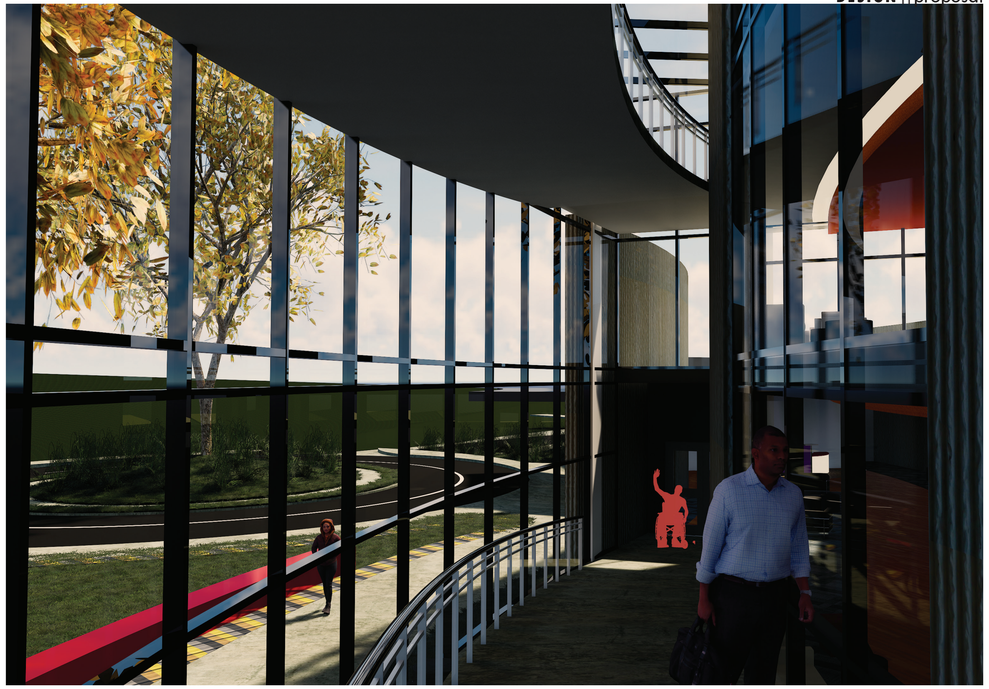


NORTHERN GARDEN//WALKING PATH
Pedestrian pathway along ramp shaft with view to the wetland.
Reading space under the ramp.

AMPHITHEATER// CAFE ENTRANCE

Approaching the building from the higher ground of the site through the walking trails system. The amphitheater offers clear views of the wetland.





RAMP SHAFT
The ramp and the elevator are the means of access to the building and upper floors.
A fire stair is provided to comply with fire safety codes.
Chris can access the upper levels with no assistance using the same means as any other user.

MAIN CIRCULATION SPACE

View from the lobby into the reading hall with views into the ramp shaft, amphitheater and wetland to the right. View of the south garden to the left.

The south wall of the reading hall (to the left of the image) is painted in a different color from the rest of the walls to serve as a point of reference for Oma and others who might need to be oriented.

The differently textured floors help Dusty walk freely through the center of the atrium without the fear of stumbling with objects or walls.

READING HALL

Perspective of the reading atrium with view to the southern garden (right) and to the ramp/amphitheater/wetland (left).
This is Yoli's favorite room. In this room Yoli can stand in the middle of the room and enjoy a panoramic view of the outside of the library.
Lower stacks are provided in order to keep the views unobstructed. Using lower stacks also keeps the view open for Oma, and provides easy access for Chris.
This room faces south, which translates into great amounts of sunlight. Dusty cannot see the sunlight, but he can feel it.

IMAGES

All figure scales in this document were acquired from
www.all-silhouettes.com

Page 2
The original designs used to create the prints titled 'touch', 'taste', 'sound' and 'sight' were acquired from "Abstract symbols" by Jack Rugile

Pages 6-13
All images on these pages have the source | author at the bottom right side of the image. None of the images in these pages belong to the author of this document.

Pages 16-18
Maps' underlay images acquired from www.googlemaps.com

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READING HALL//ATRIUM Yoli on the second floor looking down to the reading hall and south garden.

READING HALL//ATRIUM

View of the circulation area facing the lobby space and the reading atrium. The room has views of the south garden.

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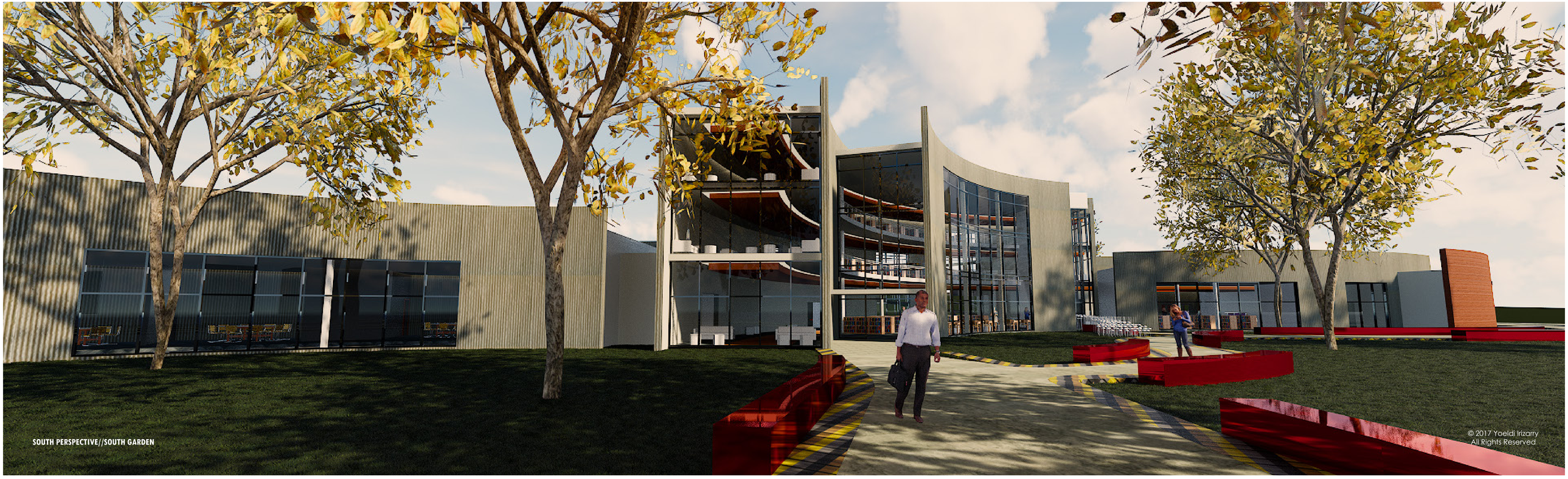

SOUTH PERSPECTIVE//SOUTH GARDEN