S E N S E S  O F  D A R K N E S S:
AN EXPLORATION OF BLIND NAVIGATION THROUGH ARCHITECTURE
Based on the principle of sequential lessons for teaching orienteering, the program is a center that teaches navigation to people who are blind, located in the remains of the Chesapeake and Ohio Canal in Harpers Ferry, West Virginia. Through the use of materials, light, and this program of sequential patterns, the architecture focuses on heightening the working senses of the occupants using the progression throughout the building. This connection of the body and mind to architecture creates an awareness of space, unifying a perception of place, while bridging the old life to the new.
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Thank you to my committee members, SUSAN, PAUL AND PAUL, for guiding me and keeping me focused while working towards finding an answer to what felt like an impossible question at times.

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TABLE OF CONTENTS
IMAGE SOURCES
To the East of the town lie the remains of the Chesapeake and Ohio Canal, which begin to intertwine with the Appalachian Trail that runs the entirety of the park. The remains of the canal and locks, mechanisms used for raising and lowering boats between stretches of water at different levels, speak to the rich history of what the site once was, and the inevitable future of what it will become. The site of the project incorporates the surrounding landscape, bodies of water, and existing character of the town, which are all elements used to influence future intervention.

LOCATION

Harpers Ferry is a history-rich town, located in Jefferson County, West Virginia. The town is situated on a low-lying floodplain, bound by two rivers, allowing the water in the surrounding landscape to become part of the site at various times in the year. The Baltimore and Ohio Railroad Crossings, a set of railroad bridges spanning the Potomac River, connect the remote town to the mountainsides of Maryland.
The rich variety of life and landscape within the site allows for an awakening of the senses that would not be possible on every site. Aside from the breathtaking views, the site offers a variety of sounds that begin to speak to the character of the site, creating a different experience at any given time of day.

Given that the site is located below the Baltimore and Ohio Railroad Crossings, the sounds of the oncoming trains can be heard daily, once in the morning, and once in the late evening, signifying the beginning and ending of each day on the site. Along with the sounds, the vibrations of the passing trains can be felt in the site below, both on the constructed paths and walls, and in the organic landscape below the rails.

Accompanying the sounds of the rail are the sounds of the natural elements found on the site. Being that the site is located at the foot of a mountain, bound by a wall of trees and the water’s edge, there are a range of sounds that vary with the climate and time of day. The rustling trees and rippling water cannot be missed, though may be muted by the sounds of the insects and passersby of the site, walking or biking down the Appalachian Trail.
STUDY
Synesthesia is a neurological condition that is more commonly experienced when there is a loss of one or more senses. This condition is explained by the stimulation of one sensory or cognitive pathway leading to automatic, involuntary experiences in a second sensory or cognitive pathway, associating two or more physical senses. Synesthesia requires the discipline to allow one to remove the primal urge to divide the separate senses, allowing an overall sensual experience to occur. In an essay written by Marco Frascari, he explains, “synesthetes perceive by merging primary and secondary qualities in the cloven world of the res extensa and cogitans. Synesthetic inter-sensory associations are emotional states of affairs appreciating that there are ineffable things you hear, invisible things that you see, and impalpable things that you touch, that are describable but beyond words.” In the same essay, Frascari goes onto say often architects, such as Carlo Scarpa, use a similar concept of “smelling” colors, “seeing” sounds and “feeling” tastes to explain the essence of their buildings. Frascari continues that the information received by one sense to a perception in another sense is the essence of the architectural thinking that ought to take place during the drafting preceding the constructing of a building. Architectural concerns in matter(s), material substances or material beings and their transformations and transubstantiations in the built world can be recognized through a synesthetic view of the drawing procedures.
There is a sequence of eight strategies that helps the newly blind navigate independently through buildings and environments. The lessons start with dependent lessons, one-on-one mentoring, and later evolve into independent lessons, in which the student begins to way-find on their own using the tactics that were taught in previous sessions. Each lesson builds on the one preceding it, until the final lesson, which allows the student to incorporate their learning into their daily lives.
Just as any student learning a new task, the key to success is recognizing the problem and realizing solutions. In this lesson, students are placed in situations that require them to perceive and think about both the problem and how to achieve a solution, or multiple solutions, which can be done in a one-on-one or group setting. Forcing the student to understand how to approach a familiar problem can later influence how they act in foreign situations.
Sequential lessons are based on patterns, first introducing the student to a smaller, recognizable surrounding, eventually building into larger, more complex environments. By starting with the familiar surroundings, the student begins to memorize layouts, allowing one to apply pervious moments into more complex layouts, while also consciously driving them to comprehend how to approach the more complex layouts by starting at a smaller scale.
Orienteering is based on learning the patterns of the built environment, studying how to move through generic layouts efficiently. Most commercial spaces have repetitive, logical designs, one not varying significantly from the other. Generally, all malls, grocery stores, and highly populated residential areas have layouts that don’t vary significantly although locations and programs might. Having a basic grasp on these arrangements allows the blind to not only navigate smoothly through the specific buildings studied, but also impose these layouts on new spaces, helping them to navigate in unfamiliar plans with reduced hesitance.
In buildings, landmarks are linked together to teach routes, connect paths, or recognize a change in space. This tactic of learning is most effectively used on the blind, but can be also implemented on people with other perceptual or visual challenges. However, these landmarks are not the visual or site landmarks that we are used to, such as tall towers, or sculptural buildings. Instead, the landmarks are formed by repetitive patterns or materials, which hint at particular moments or changes in moments within the space. Feeling or hearing the character of the material allows the student to understand similarities or differences in rooms or programs, helping one learn spatial layouts by association.
This is the step in the sequential lessons in which independence is first introduced. Until this lesson, mobility mentors are side by side with their students, guiding them through each lesson to ensure that they are being completed. In this lesson, mentors distance themselves carefully from their mentees, allowing them to move through spaces while relying solely on themselves and what they have learned for self-orientation, while still having a comfort in the proximity of their teachers. The mentors begin by walking ahead of their students, forcing the students to follow the mentor’s voices when they become unaware of their surroundings. However, as the lessons progress, the mentors begin to fade behind the students, gradually distancing themselves farther as the students ability to navigate increases, building confidence and overcoming insecurity.
There is a sequence of eight strategies that help the newly blind navigate independently through buildings and environments. The lessons start with dependent lessons, one on one mentoring, and later evolve into independent lessons, in which the student begins to way-find on their own using the tactics that were taught in previous sessions. Each lesson builds on the one preceding it, until the final lesson, which allows the student to incorporate their learning into their daily lives. Lesson One: Emphasis on Problem Solving. Just as any student learning a new task, the key to success is recognizing the problem and realizing solutions. In this lesson, students are placed in situations that require them to perceive and think about both the problem and how to achieve a solution, or multiple solutions, which can be done in a one on one or group setting. Forcing the student to understand how to approach a familiar problem can later influence how they act in foreign situations. Lesson Two: Sequential Lessons. Sequential lessons are based on patterns, first introducing the student to a smaller, recognizable surrounding, eventually building into larger, more complex environments. By starting with the familiar surroundings, the student begins to memorize layouts, allowing one to apply previous moments into more complex layouts, while also consciously driving them to comprehend how to approach the more complex layouts by starting at a smaller scale. Lesson Three: Orienteering. Orienteering is based on learning the patterns of the built environment, studying how to move through generic layouts efficiently. Most commercial spaces have repetitive, logical designs, one not varying significantly from the other. Generally, all malls, grocery stores, and highly populated residential areas have layouts that don't vary significantly although locations and programs might. Having a basic grasp on these arrangements allows the blind to not only navigate smoothly through the specific buildings studied, but also impose these layouts on new spaces, helping them to navigate in unfamiliar plans with reduced hesitance. Lesson Four: Landmarks and Clues. In buildings, landmarks are linked together to teach routes, connect paths, or recognize a change in space. The tactic of learning is most effectively used on the blind, but can also be implemented on people with other perceptual or visual challenges. However, these landmarks are not the visual or site landmarks that we are used to, such as tall towers, or sculptural buildings. Instead, the landmarks are formed by repetitive patterns or materials, which hint at particular moments or changes in moments within the space. Feeling or hearing the character of the material allows the student to understand similarities or differences in rooms or programs, helping one learn spatial layouts by association. Lesson Five: Walking Behind/Fading. This is the step in the sequential lessons in which independence is first introduced. Until this lesson, mobility mentors are side by side with their students, guiding them through each lesson to ensure that they are being completed. In this lesson, mentors distance themselves carefully from their mentees, allowing them to move through spaces while relying solely on themselves and what they have learned for self-orientation, while still having a comfort in the proximity of their teachers. Having a sense of knowing the student ahead of their students, forcing the students to follow the mentor's voices when they become unaware of their surroundings. However, as the lessons progress, the mentors begin to fade behind the student and asked to solve their own problems, mentors only intervening in emergency situations, or to provoke mentees to find the solutions. This tactic purposely mirrors back to the first dependent lessons studied in the sequence.
During reorientation, mobility specialists allow their students to get lost, explore unknown areas, intending for the student to use their previously learned skills to reorient themselves. In this lesson, mentees are highly independent and asked to solve their own problems, mentors only intervening in emergency situations, or to prompt the students. This lesson is the most independent lesson to date, introducing the students to daily life outside of the teaching atmosphere, while still having a small sense of comfort and guidance.
After students have mastered all of the previous lessons, they are encouraged to go on independent lessons, using the tactics learned in former sessions. Since daily living skills are addressed in previous lessons, but cannot be taught in the classroom and transferred directly into an everyday routine, this is when students are encouraged to practice those, incorporating their routine into the lessons. The mentor is completely removed at this point, forcing the student to rely solely on themselves and what they know. Only at the end of the lesson is the mentor reintroduced, allowing for final feedback to be exchanged. These lessons allow the mentors to see how well the previous and layouts have been mastered, preparing the students for everyday life.
Universal design is a type of design that responds to the needs of people with a range of abilities, including the vision impaired. In order to make these buildings accessible, architects and designers can use a variety of design elements such as bright colors, changes in illumination, and a range of tactile landmarks through materials to guide the occupants through the spaces. This type of design can be seen in buildings such as Castelvecchio in Verona, Italy and La Tourette in Éveux-sur-Argresle, France.
Museo di Castelvecchio is an adaptive reuse villa museum restoration project completed between 1959 and 1973 by Carlo Scarpa in Verona, Italy. This castle renovation posed an interesting problem for Scarpa, how to incorporate a modern intervention into an ancient environment, while maintaining the original charm of the space. The final work was “animated by a seemingly inexhaustible sequence of formal inventions articulating the skeleton, the framework, partly accepted as historically pre-existing, partly explored through that surgical operation, intended to lay bare all the genuine survivals, and partly built anew, to bind together the scattered limbs, to fill in the gaps without concealing the wounds of time, suturing the links and revealing joints. By implementing the surgical renewal within which he works to restore unity and life, Scarpa not only reveals the essential coordinates of the complex but also the materials that constitute its corporeal essence.” Scarpa accomplished this by not only excavating existing elements of the castle, such as old stonework, marble and brickwork, but also tying in existing elements of the local town from the walls, streets, and pavements, giving the renovated building a broader context. Each part of the renovation methodically influenced another, eventually creating a unity of the whole.
La Tourette is a modern monastery designed by Corbusier between 1957 and 1960 in Éveux-sur-Arbresle, France. This unique project is programmed to be a self-contained world for the monks in the monastery, accommodating the specific, regulated lifestyle of the monks. The site of the convent was chosen by the Architect himself, and was fully explored by the architecture of the space. Each dwelling cell included an outward facing balcony, which were located above the common gathering areas. The intention of architect Le Corbusier was “to give the monks what men today need most: silence and peace… This Monastery does not show off; it is on the inside that it lives.” The scale of the project ranges between the structure and the habitant, having massive structural forms at the base of the building where it meets the site, then transforming into 100 modest living units for the monks. Corbusier’s goal to “discover, to create a different, other architecture, unique and original in its essential nudity” was achieved by his exposure of this raw architecture, combined with intentional detailing using the natural character of the site.
The Vitruvian Man is a drawing created by Leonardo da Vinci in the late 1400’s, based on the work of Vitruvius, imposing a simple geometry on the ideal proportions of man. Each separate part of the body is constructed as a fraction of the whole. The head of the man, measured from the forehead to chin, is 1/10 of the entirety of the body for example. To study the proportions of the blind man the Vitruvian Blind Man was created, by adding a cane to the ideal man, which is proportioned by dimensioning the length from one’s sternum to the floor, connecting the structure and scale of the human body to the structure and scale of the architecture. By dimensioning the length from the fingertips on one outstretched arm to the end of the cane in the opposite hand of the Vitruvian Blind Man, a 12 foot by 12 foot grid was created, allowing the occupant of the building to find his/her body in the space at all times by outstretching their arms and cane.
I once read that “humans are tuned for relationship. The eyes, the skin, the tongue, ears and nostrils—all are gates where our body receives the nourishment of otherness.” I never understood this until one of those gates was broken for me. Darkness is my new normal. Until recently I took my sight for granted, not realizing how binding it was for my relationship between the outside world and myself. Now that it’s gone, I have never wanted it more. It happened so suddenly, with no warning, that I had no time to prepare myself or learn to adapt. The simplest daily tasks have become exponentially more difficult. Now I have no choice but learn to live in the dark.
I finally agreed to come here after much resistance, but I knew I couldn't do this alone, and I can only stay secluded in my house for so long. My mentor explains that this eight day program is designed to teach me to live again independently, how to adapt my new body to living my old life. He explains that this program mimics the act of reading a book in braille; I feel my way through the building from start to finish the way I would read a book. Each day is a new chapter in the book where I learn more about the characters, in this case myself, eventually ending in a new beginning, instead of a conclusion. I don't know if I buy this, but I don't think I have a choice.

Today, the focus of our session is Problem Solving. I immediately think of the problem-solving diagram that I learned years ago: identify, explore, set goals, examine alternatives, select strategy, implement and evaluate. This cycle was engraved in my brain. We start with the simplest of tasks: walking. I never thought that at my age I would have to learn to walk again. When I was a toddler, it came so naturally, and now it feels so foreign. I may have not lost my legs, but every step is a guess now, it does not feel permanent, as if I am waiting for the ground crack below me. The uncertainty of what is in front of me is overwhelming. My cane has become my new set of eyes, the extension of my body, a type of prosthetic if you will, but I'm still learning how to use it. It is a frustrating feeling, having to relearn something that you think you have already mastered. However, I can't help but to think of a quote I once read in The Spell of the Sensuous. In the book, David Abram is discussing the relationship of the body to other elements in the environment, and goes on to say that “the body’s actions and engagements are never wholly determinate, since they must ceaselessly adjust themselves to a world and a terrain that is itself continually shifting” and trust me, I have never felt the world shift from underneath me until the day I lost my sight. But if you think about it, yes, I knew how to walk, but it was almost like I was relearning every day, with every change of material, my body had to react differently. It is the same now, I just cannot see the change in material, instead I have to feel for it. So I begin to feel around the space.
My mentor leads me down what feels like a small hill onto a grassy area. I am completely overwhelmed, hearing a range of noises around me, it’s hard to orient myself. My mentor asks me to try to listen to just one sound, making it easier for me to focus. All the sounds seem to bleed in together, so it takes me some time, but once I spend some time listening, the sounds become almost familiar.

As I begin to tap around with my mentors’ guidance, I feel something arm’s (cane included) length away in front of me. As I begin to tap it, I can hear the vibration of metal bouncing back at me. I walk over to the surface and begin to tap again and this time I hear water splashing around. I realize that this is a reflecting pool cut into the ground. It’s shallow, I can walk in it if I want to. I begin to move forward and after just two steps, my cane hits something that makes a different noise.
Today’s lesson takes place where we left off yesterday, which my mentor tells me is in an old canal bed. Keeping yesterday’s lesson of problem solving in the back of my mind, we move onto what my mentor refers to as “Sequential Lessons.” He first tells me a story about a spider weaving a web, and how although the process of weaving may be engrained in the spider’s genetic character, the act itself is completely dependent on the environment that it is in. However intricate and complex the “inherited programs, patterns or predispositions, they must still be adapted to the immediate situation the spider finds itself. However determinate one’s genetic inheritance, it must still be woven into the present, an activity that necessarily involves both a receptivity to the specific shapes and textures of that present and spontaneous creativity in adjusting oneself to those contours.” Perception becomes this “blend of receptivity and creativity” which then allows every organism to orient itself in the world. This is how we, as humans, should think about navigating through a space. We should not simply search for the path that we know as familiar, but discover the path that best suits the design of the environment.

And so from this story we begin where I started yesterday, in the canal bed at the place I heard a different noise. He urges me to use the skills I learned about orienting myself from yesterday’s lesson, isolate noises, and even use my old tactics of navigation before the accident. I begin to feel the wall with both my hands and my cane, quickly noticing that the wall is very long. As I follow the wall to the right, it takes me about 30 steps before I hit a new material, this time even rougher than the concrete. As I run my hand along it, pieces begin to break off into my hand, making me think that it has been here a while. I feel it curving as I continue following it, which contradicts the very linear wall and reflecting pool that I had felt earlier. When I ask my mentor about it, he prompts me to problem solve, instead of giving me a straight answer. After much discussion I realize that this new texture is a retaining wall that existed on the site before the building was constructed. This is why it has a different character than the new building, but it still seems to correlate with it.
I follow the concrete wall back to the edge we began the lesson. As I wrap my hand around the wall, I feel the thickness of the wall, which is almost the length from my fingertips to my bicep. I reach my cane out of my extended hand, and feel another wall, the same material as the first hitting the tip of my cane. I walk towards it, feeling now a different material beneath me, no longer the soft grass, but harder rocks, that make much more noise with every step. This wall is shorter than the last wall. I use my cane to navigate around the wall, and realize that I have come to an opening in the wall. If I reach my arms up, I can touch the top of it, feeling the wall continuing above my head, and to the left and right. I follow the wall down, kicking the gravel below my feet as I go, and encounter another opening, but this time, it is not meant for me. It is shorter, just a foot high this time, which my mentor reminds me is the typical height range from the ground that I will be touching with my cane. The ground feels to be the same material as the wall I've been holding onto, but when I touch it with my hand, it feels damper, colder. When I feel my hand, it feels wet, droplets of liquid left on it. This is an opening for the water.
As I continue back along the path, I find a few more of these smaller openings. My mentor asks me to notice where they are, because they will influence the openings above me, although I do not quite understand what he means yet.

I keep walking through the openings, made for me, discovering new things about the spaces. After I navigate around eight walls, between four reflecting pools, I recognize that this building is designed as a module. It is based on my body, giving a sense of architectural anthropomorphism to the building. I can begin to orient myself using the dimensions of my body to guide me through the spaces in the building, giving the building a sense of human character, similar to the work of Carlo Scarpa.11
This past day has been a busy one, and my mentor tells me that today is the last day I can study the building within the canal bed. Today we focus on orienteering, which is based on learning the patterns of the built environment and studying how to move through generic layouts efficiently. Gaining a basic grasp on these arrangements will allow me to not only navigate smoothly through this specific building, but also teach me how to impose these layouts on new spaces, helping me navigate through unfamiliar plans with reduced hesitance.

Keeping my exploration of the space from the previous two days in mind, I start again at the top corner of the building, this time trying to get all the way through while at the same time trying to create a general image of the building in my mind with what I encounter. As I let my cane lead me between the openings in the walls, I notice that the walls are placed equidistantly from one another in consecutive rows. There are sixteen walls and seven wide openings and eight narrow openings, which correspond to the eight sequential lessons for blind navigation. Each wall has one opening for me, and several openings for the water. I try to draw a mental map locating each opening within the rectangular shape of the building created by the walls. I notice that the short openings are always in line with one another, while as I traverse through the tall openings, I find myself constantly turning, almost walking on a diagonal through the spaces within the walls, before coming to the final wall that turns me out and back into the open canal. As I weave between the walls, I feel the same stone wall running perpendicularly to the last few walls in the Northeast end of the building that I felt in the Southwest corner of the building as well. These retaining walls frame the extents of the space.
Now my mentor has guided me up from the canal bed, back to the path where we started this journey. I can hear other people around me, more unfamiliar noises, making it a little disorienting. I notice that these are the same sounds that I heard in the canal bed, they are just closer, forcing me to focus to recognize them. I hear people talking, passing me on bikes, the spinning tires leaving tracks on the path as they go by. Dogs are barking, and the water brushing up against the rustling trees. For a moment, I lose myself in these sounds, letting them engulf me, until my cane hits something and brings me back to reality. It is the same material as the walls I felt in the canal bed, but this time it’s shorter, less than a foot. As I navigate around it, I find out that it’s a column, and as I feel to the left of it I hit another wall. The wall and column create an opening that is the same width as the openings I felt downstairs, but this time when I reach my hand up to feel the top of the opening, I do not feel it. Only when I raise my cane up do I realize that the opening stops at the point where just the tip my cane can touch it before it turns above me similar to the wall downstairs. As I pass through the threshold, I feel another wall in front of me, this time further away. The spacing between the two walls on this level is different, wider, allowing more room for my body.
As I feel around on the ground around me my cane taps a new material that I haven’t heard yet. The resonating echo makes it clear that it’s metal, but it is different than the metal I felt downstairs. It is harder, ringing much louder now, and for a longer amount of time. As I bring my hand and cane up, I feel glass being warmed by the sun, which my mentor tells me is the entrance to the building. I feel around with my hand for the handle and pull the piece of glass towards myself. I move through the door, my footsteps creating a melody over the steel piece running the entirety of the glass, and I quickly encounter another piece of steel. I feel the same glass protruding out of it, marking another door. My mentor reminds me that today’s lesson is about landmarks and how to use landmarks and clues to help myself navigate. He explains that landmarks are strategically placed in environments to frame views or paths that help guide visitors on intentional paths. Clearly, I cannot see physical landmarks, so I have to feel or listen for them. I imagine typical landmarks of the city, which are grand gestures to something of the past, but here, I have to look for different patterns.
DAY FIVE
Until today, my mentor has been by my side, giving me constant feedback and assistance when necessary. However from here until my final lesson, I am urged to learn more independence. Therefore my mentor will distance himself from me carefully, allowing me to move through the space while relying solely on myself and what I have learned for self-orientation, while still having a comfort in proximity of him. Instead of walking with me, my mentor will walk behind me, or ahead of me, forcing me to follow the mentor’s voices when I become unaware of my surroundings, or face a new element that I have not encountered yet.

I walk to the most North end of the room, walking towards the light. Although I cannot see, I am aware of the clear contrast between light and shadow, while also using the heat from the light to bring me forward. I feel for the next opening and as I walk towards it, I feel a change of material with my cane before my feet move to meet the cane. This floor is softer than the concrete, but still sounds like a stone when I tap it. I put my hand on the floor, and can feel that this stone is not only rougher than the concrete of the floor I was just on, but also warmer, absorbing the heat from the sun coming through the glass opening.
I traverse through three openings in between the walls, stopping at the fourth noticing that there is a difference in this opening that I did not feel in the others. As I move my hand around the opening, I notice the angled edge on the wall, present on both sides of the opening. Keeping this in mind, I move forward in my journey, quickly running into a continuous wall after about 6 steps. I know that the light signifies the edge of the wall to my left, so I follow the wall to the right, finding another opening, this time with straight edges. As I move through this opening, I notice the next opening has the same angled edge as the fourth wall did, signifying a similarity between the two. After moving through it, I run into a wall, again after the six steps. I again follow the wall to the right, and find another opening. I begin to understand that the angled walls are there to give me a sense of direction on the path. Every time I encounter an angled wall, I have to mimic the angle of the wall in my path in order to avoid hitting a solid wall. I quickly remember that this path of openings is the same path that I found in the walls in the canal bed. I move through the final openings within the walls to find an open room, similar to the first room I discovered when I entered the building, signifying the end of the path.
Today I am meeting my mentor in the room I discovered at the end of my lesson yesterday to discuss both previous and future lessons. For the first part of the discussion, we will be in a one-on-one setting, later moving into a larger group. My mentor urges me to move around the room to understand where and how we will be experiencing the room. When I walk through the threshold, my cane immediately hits a wall that rings the same way as the reflecting pools did downstairs, hinting to me that it is the same material. I can feel with my hand the places that other people have touched before, leaving small tracks on the copper.
I move towards the cooler side of the room, weaving in between the columns. These are different than any of the columns I felt before, they have rectangular openings cut into them which are located at approximately the height of my hip. These three inch cuts are placed at the same location in each surrounding column. My mentor explains that these ledges support the tables, and depending on whether we are in a group setting or single sessions, the furniture in the room can be moved around to accommodate the mentors’ and mentees’ needs.
As the mentor begins to assemble the table by sliding the wood piece between the columns, I decide to explore the room further. As I walk to the south end of the room, allowing the wall on the left hold my hand as we go, I hit a material with my cane that I have not felt in the room yet. However, the grooves of the material and the sound that it makes when I tap it with my cane quickly instructs me that this is not a foreign material, but one that I have already felt before. Once I bring my hand up to meet the wall, I realize that it is the stone of the retaining wall penetrating the building, bringing the exterior site into the interior of the space. My mentor reminds me that finding clues like this one will help me understand the siting and layout of not only this particular space, but any space that I may encounter from here.
I am not sure exactly where I am. My mentor guided me up a warm, narrow stair to the top floor of the building, and did not let me use my cane or any other senses to locate myself. This is what they call “reorientation” here, allowing the students to get lost, and wander while attempting to reorient ourselves using the lessons that we learned in the previous days. We have to solve our own problems; our mentors are out of sight, the comfort of their proximity gone. I am forced to take on the responsibility of self-orientation, eventually allowing me to build confidence and security in my ability to guide myself once I leave here.
The first thing that I notice is the amount of light and heat in this space. I feel the light coming from above me, from the North and South ends of the building, warming the soft ground that I am standing on. As I reach my hand up towards the light, my cane taps a glass roof. I begin to follow it, my heels composing a rhythm on the hard wood floor, I realize that it is sloping down to the North side, reaching for the stone retaining wall beyond. The longer I stand here in this very narrow space, the more magical the space becomes, the natural and manmade working in unison to create a characteristic in the space that would be missed if both elements were not present. I notice that I can begin to tell time by the changing shadows caused by the concrete walls in this constricted light well, the concrete wall acting like a sundial, playing with shadow and light.
I move out of the narrow space, through a threshold, searching for something more open. As I tap my cane around, I hear the ringing of steel, similar to the sound I heard by the doors at the entrance, signifying a passage way. However, when I move my cane up from the steel, I do not feel the glass that I expected, but instead, soft wood. I run my hand along the grain, quickly stumbling upon the metal handle. I move forward to push the door, but it does not open. After tugging at it for a moment, I realize that it is a sliding door that tucks away into the space, creating an open connection between the two rooms.

As I pass through the doorway, I recognize a new material under my feet, softer than any I have felt yet, giving way as I walk. From listening to my footsteps, I know it is wood, but this is a different kind of wood. As I walk across the floor, I feel the floor bouncing with each step that I take, walking with me. I remember that this is the same kind of floor that I danced on as a child in the dance studio, giving way with every move that I made. This floor is softer, warmer than the other wood floor, with the long slats running parallel to the concrete walls, instead of the end-block pieces I felt when I first entered this space from the stop of the stairs. I walk along the creaking wood floor towards the wall to my left, feeling the indentations of those who came before me.

The walls in this space are much different too, softer than the concrete walls in the downstairs space. I can tell they are fabric, warming the space up with their natural character. This is the sleeping space, I can tell by the character of the materials within the room. I follow the soft fabric walls, which end after a few steps, opening the room up once again.
LEVEL TWO AIR MOVEMENT PLAN AND SECTION
I bring my cane to my side, trying to locate the concrete walls again to locate myself within the space. Once my cane hits the concrete wall, I walk towards it and let it guide me towards the bright light coming in from the South. I only take two steps, before I feel the wall turn. However, this time, it is not an opening or column, but instead a depression in the wall. Within this depression, I feel a different material, it is soft like the fabric, creating a cushion on the wall. I recognize the texture as leather, and this new material signifies a new element in the space that I have not discovered anywhere else. I feel around the leather panel, before stumbling onto the bed, quickly linking that the location of the leather is meant to signify the location of the bed.

I move around the edge of the bed, and find the depression in the wall turn back out to continue the concrete, which quickly accepts a piece of glass that intercepts the wall perpendicularly. The glass is warm, absorbing the heat from the sun shining on it. Some pieces of glass are hotter than others, which forces me to examine the wall further. As I feel around the glass wall, I notice divisions in the glass created by the mullions. On one side of the two equal sides of the glass, the mullions are placed at a level relative to the dimensions on my body, my relaxed hand, my shoulder height, and my extended arm. The locations on the other side of the glass are relative to the dimensions of my body and cane together, the one-foot range of where I can feel with my cane, my shoulder, and my extended arm and cane.

As I feel my way around the glass, I accidently move one of the cooler pieces of glass, and it plunges forward, out of the plane of the other members of the assemblage. At first, I worry that I broke the wall, but feel my way around the mullion to realize that it is a window. It is not a typical casement window that I am used to that swings open, but this one instead protrudes out from the others, and I feel the air pushing its way in through the continuous reveal between the extended window and glass wall. After a few minutes of pushing and pulling, I find three other windows in the glass plane, and push them open, letting the winds and sounds from the outside take over the room.
Today is my last lesson, my last day here. I have become more aware of the surrounding sounds in every environment that I’ve experienced since the accident; this has become my way of orienting myself. My mentor noted during our feedback lesson on Day 6 that this is something called synesthesia, the neurological condition in which stimulation of one sensory or cognitive pathway leads to automatic, involuntary experiences in a second sensory or cognitive pathway. It becomes clear that now that I cannot depend on my sight in order to understand the special layout that I am in, I need to mentally draw it using my functioning senses, linking them to my newly found way of navigating.
As I stand in the most Northeast room in the upper floor balancing myself between the concrete walls using my cane and my voice, the thick white light shines through the glass shingles in the roof, warming me. I walk away from the soft walls of the bedroom units, towards the glass doors, following the sounds of the outside elements. Once I pass the final steel ringing threshold and feel the soft grass below my feet, I hear the faint whisper of the train above me. As I walk towards it, the sounds get louder and clearer, we are getting closer to one another. A cold blue sound overpowers me and all the other sounds I had previously heard, forcing me to concentrate hard to hear the others, the grass crunching beneath my feet. I can begin to isolate a soft warm orange of the nature surrounding me begins to come through as I begin to hear the crickets and frogs in the distance. I now understand how to hear the individual sounds, but they sound beautiful as they bleed into one another. Gary Snyder quoted “as the crickets’ soft autumn hum is to us so are we to the trees as are they to the rocks and the hills,” hinting that each sound is influenced or influences another, creating a network of melodies. Without one, the tune would be off key, so why separate the noise?
I have never understood more than I do today that “every sound is a voice, every scrape or blunder is a meeting” and from each one of these relationships, our collective sensibilities are nourished. A sound is not just a sound; it is caused by an element or movement, and created in relation to another element. I was naive, feeling sorry for myself for having to “work backwards” from all that I have learned through my life up until this point. However, both the work of David Abrams and my mentors’ teachings have taught me that we are constantly learning. In Abrams’ writing, he says “if the body were truly a set of closed to predetermined mechanisms, it could never perceive anything really new, could never be genuinely startled or surprised. All of its experiences, and all of its responses, would already have been anticipated from the beginning, already programed, as it were, into a machine.” But I am not a machine, I am human, and I learn every day, and I am never done. I may have learned to walk as a toddler, but those instincts were being tested every day with every new environment that I encountered, and although I may not be so visually dependent to understand layouts, I have never been more aware of my surroundings. I take the time to examine every joint and every reveal in every floorboard, every turning wall, and every threshold, experiencing each both individually and collectively, leaving my own marks on the grains of wood and between the cracks in the concrete. This reciprocal relationship, of tension, communication, and commingling, is the most immediate and intimate experience of elements.
DAY EIGHT THOUSAND
DAY TEN THOUSAND
It has been almost 30 years since I came here last. It was when I was newly blind, and was completely lost. This building helped my find my place in the world, relocating my new self in my old life, while working to build a new life. Since I have left, I heard there was a series of terrible floods, eventually bringing the building to complete disrepair. I have come to feel the space out for myself.

I walk along the old gravel path, kicking what is left behind as I go. I hear all the sounds of the site that I heard years ago, appreciating them now more than ever, but now it sounds more deserted. There is less activity here, just a few passersby jogging or biking along the old trail. But the sounds of the water, trees, and birds are still ever present, as if nothing had ever affected their existence.

I search for my welcoming column that initially drew me into the building, but all that is left is a depression in the ground surrounded by a few broken pieces of concrete. I guide myself down the hill of the canal, only to find rest of the building in the same condition as the column. However, even with the fallen walls and obstructed paths, the magic of the building is still present. The sixteen main walls are present, as are the eight cavities between them.

I can still feel the materials that I felt before, hear the same sounds I heard. This new rhythm still has the same instruments, just a new melody.
LEVEL ONE PLAN
DETAIL SECTION B
DETAIL SECTION F
SOUTHWEST ENTRANCE SECTION
SOUTHWEST STAIR ENTRANCE SECTION
NORTH ELEVATION
MODEL PHOTOGRAPHS
RUIN MODEL PHOTOGRAPHS
TEXT SOURCES


