What is Privacy in Deaf Space?

M.A. Thesis
By
Jordan Sangalang

American Sign Language and Deaf Studies Department
Gallaudet University
Washington, District of Columbia, United States of America
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Figure 7.23 Rear Elevation of State Bank of Chandler in Chandler, Minnesota (n.d.).. 175
Chapter 1 Introduction

In the fall of 2011, there was a Residence House Interiors Renovation Project at Gallaudet University, where stakeholders – Gallaudet University undergraduate students, graduate students Residence Life staff, and resident advisors, including myself – attended the sessions. Gallaudet University had a contract with an architectural firm, Studio 27. During one of the first few sessions, they gave us their ideas of how they would design the new dormitories then the students would give feedback on their designs and ideas they proposed for our dorms. The common terms that were brought up during the sessions by students were DeafSpace and open visual access, interchangeably, every time they felt the designs had some visual barriers. One example, long cables for the lights from the ceiling to the first floor would be visual barriers for the residences that would try to communicate from the second floor and up. Also they suggested changing the rails in the lounge of Carlin Hall to solid colors, but the students suggested that it should be glass and the rooms should have windows so students can see each other on the other floor below them. They used the example of Gallaudet University’s Sorenson Language and Communication Center (SLCC) where they had glass rails on the second and third floor in the atrium because it was DeafSpace and had “open visual access.” The students also threw in ideas and agreed that the doors should have windows so students can see each other in the room because of DeafSpace and “open visual access.” Then someone disagreed with the idea of adding windows to the doors because would be an invasion of privacy. Now the question comes to mind: What is privacy in DeafSpace?

There are two concepts here to think about: privacy and DeafSpace. This has not been looked into in the field of Deaf Studies. The issues that will arise here is the
question if privacy exists in DeafSpace. Considering how the concept of DeafSpace is commonly believed to be all about open space and no visual barriers leads to think that privacy does not exist. We will see that privacy is not only universally defined, but also culturally defined. This paper will look into how the concept of privacy plays out in DeafSpace. Again, the two important concepts are privacy and DeafSpace. The background and history of both concepts will be discussed.

**DeafSpace**

Before we go into the concept of privacy, we must first understand the basis of DeafSpace. Deaf people occupy a different sensory world where vision and touch are primarily their means in spatial awareness and orientation. “Many use sign language, a visual-kinetic mode of communication and maintain a strong cultural identity built around these sensibilities and shared life experiences.”

Deaf people responded to built environments by hearing individuals and altered their surroundings to fit their unique ways-of-being. Often, this approach is called *DeafSpace*. In other words, DeafSpace is a space where the “identity as a deaf person can be explored and nurtured.” DeafSpace has not been formally recognized within the field of architecture on the basis of Deaf cultural elements. That is, traditional architects have not come to recognize the Deaf ways of being and how to ensure proper designing to suit their ways of being.

The concept of DeafSpace originated from the 3-year *DeafSpace Project* designed to create the Gallaudet University Campus Design Guide with the ASL & Deaf Studies Department. Hansel Bauman, Director of Campus Planning and Design directed this project.

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2. Ibid., n.d.
along with Gallaudet University students, faculty, and staff that led them to develop the *DeafSpace Design Guidelines* (DSDG), a catalogue of over 150 DeafSpace architectural design elements between deaf experiences and the built environment. The DSDG is intended to guide and inspire designing an environment for deaf people that is “completely responsive to, and expressive of, their unique ways or being.” People in the Deaf community live in a different sensory world and “inhabit a rich sensory world with a heightened visual-tactile means of spatial orientation and visual language.” Deaf communities in the United States use American Sign Language (ASL), a visual language. So, people in the Deaf communities have strong social connections through Deaf culture that is “built around a shared language, life experiences and cognitive sensibilities.” The purpose of the DSDG was to enable Deaf people to extend their sensory reach and encourage social connections.

When Deaf people gather in groups, they adjust their seating into a “conversation circle” to allow full participation in visual communication. In many cases, participants also adjust shades and lighting to optimize their visual communication and minimize eyestrain. Additionally, Deaf homeowners extend their sensory awareness and maintain visual connection between family members by creating new openings in walls, place mirrors and lights in planned locations. Further discussion on Deaf homeowners will be explained later in the DeafSpace and Home Customization section. As a result,

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5 Bauman 2010, 8, 11.
6 Ibid., 10.
7 Ibid., 10.
8 Ibid., 10.
9 Ibid., 11.
DeafSpace was built on the “ideas of community building, visual language, the promotion of safety and well-being.”¹¹ DeafSpace focuses on the Deaf ways of being from within and the environment. Here, the concept of DeafSpace is a space occupied by Deaf people to create a space that responds to their ways of being. “The occupation of space is the first proof of existence.”¹² In a way, DeafSpace is a proof of Deaf people’s existence.

Deaf people have always longed for a place of their own where “they can be together with access to communication in the comfort of familiar cultural traditions.”¹³

Here, the concept of DeafSpace was formed from an architectural aspect. DeafSpace refers to the environment built to experiences of deaf people on their sensory aspects. The guideline intends to provide a primer for professional designers. The challenges Deaf individuals face are physical barriers to visual communication and orientation such as narrow sidewalks to carry a visual communication or poor lighting that causes eyestrain.¹⁴ So the guideline suggests designs and ideas that suit the well-beings of the Deaf individuals.

The Guidelines

The DeafSpace Design Guidelines suggests five points between the deaf experience and the built environment: Space & Proximity, Sensory Reach, Mobility & Proximity, Light & Color, and Acoustics & Electromagnetic Interference. Space and Proximity deals with the physical distance and relationship between Deaf individuals. Sensory Reach involves cues that provide visual and tactile access along with shared

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¹¹ What is DeafSpace?, n.d.
¹³ Bauman 2010, 15.
¹⁴ Ibid., 10-11.
sensory reach between Deaf individuals. Mobility and Proximity explains the mobility between Deaf individuals through space fluidly without being interrupted. Light & Color and Acoustics & Electromagnetic Interference focus on the technical aspects of DeafSpace.\textsuperscript{15} Since my research will focus on the concept of privacy in the office and workspace, this paper will focus primarily on sections that mentioned privacy and private space in Space & Proximity and Sensory Reach.

\textit{Space & Proximity}

This section in the DSDG recognizes different spaces such as private and public spaces, formal gathering spaces, and collective spaces. First, DSDG explains that balances of enclosure and openness provide private spaces. Second, formal gathering spaces include presentation, classroom, meeting, and lecture hall spaces. Each of these spaces has different function and DSDG considers and designs seating arrangements to meet each of the spaces’ functions to ensure “clear communication between occupants when engaged in group conversations, debate or question and answer sessions.”\textsuperscript{16} Third, DSDG intends to design collective spaces to “promote casual interaction” where they are visible from a distance.\textsuperscript{17} Here, DSDG distinguished the designs of private and public spaces between hearing and deaf individuals. For hearing individuals, enclosure is correlated with security while open space “brings a sense of security and well-being” for deaf individuals.\textsuperscript{18} Deaf people would feel more isolated when there is too much enclosure or feel exposed when there is too little enclosure.\textsuperscript{19}

\textsuperscript{15} Ibid., 11-12.
\textsuperscript{16} Bauman, 34.
\textsuperscript{17} Bauman, 38.
\textsuperscript{18} Bauman, 32.
\textsuperscript{19} Bauman, 32.
**Sensory Reach**

This section in the DSDG discusses different sensory reaches to enhance spatial awareness to enhance a “sense of security and well-being.” Sensory reaches include: visual cues and legibility, transparency, reflection, vibration, cultural, and communication systems. Visual cues and legibility is important in DeafSpace that make destinations visible and to ensure that important places are “visually accessible from multiple vantage points.” Quality of transparency allows achieving the desired degree of privacy while being simulated by surrounding activities. This enables the inhabitant to have control of the space they are in with the desired level of transparency. Reflections “give awareness of spatial depth, the dimension of space and activities that lie behind the viewer.” Sensory reach can also be tactile through vibrations to sense nearby activities such as approaching footsteps. According to DSDG, having a “sense of connection” is vital in Deaf Culture. Lastly, communication systems such as visual doorbells, light strobes, and shaking devices are other ways to extend sensory reach to increase spatial awareness. As we see here, DSDG proposes three ways to extend sensory reach through visual, tactile, and social senses to improve spatial awareness.

**DeafSpace and Home Customization**

As mentioned briefly, Deaf homeowners customized their homes to maintain connection between family members by extending their sensory reach through: visual access and openness, controlled resonance through light and vibration, and technology.

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20 Bauman, 50.
21 Bauman, 44.
22 Bauman, 48.
23 Bauman, 54.
24 Bauman, 56.
25 Bauman, 58.
26 Bauman, 60-61.
We will see examples of home customizations that confirm the concept of DeafSpace. A couple examples of these home customizations were the taking down of walls between rooms for visual access, controlling brightness or flow of natural and/or artificial light, installations of hardwood floors for vibrations, and doorbell lights to convert noises into flashing lights. Additionally, Matthew Malzkuhn stressed the importance collective space and acknowledged “deaf people as a collectivist group.” With designs in collective spaces, it was important that these spaces were designed allow Deaf people to see each other in a way to maintain visual connections with each other.

As we see here, studies from Malzkuhn’s *Home Customization: Understanding the Deaf Ways of Being* showed that Deaf homeowners customize their homes to extend their sensory reach and stressed the importance of collective space. These studies confirm the concept of DeafSpace, particularly on sensory reach and space. Sensory reach was extended through visual and tactile designs such as openness and vibrations. These types of customizations were intended to increase the Deaf homeowners’ spatial awareness, just as the DSDG explained. Also, space was important here. Malzkuhn recognized Deaf people as collective people. Since Deaf people are seen to be as collective people, it was important to design spaces that reflect their collectivist culture. This way these spaces could reflect the ways of being of Deaf people to allow sensory – visual and tactile – connection between each other. Again, these discussions on home customizations of Deaf homeowners reinforce the concept of DeafSpace.

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27 Malzkuhn 2009, 78-93.
28 Malzkuhn 2009, 94.
29 Malzkuhn, 96-98.
DeafSpace and Universal Design

Let us look at concepts of Universal Design (UD) and its principles. UD is a concept design used by anyone, not limited to specific people. The concepts between Universal Design and accessible design have different principles. Accessible design is regulated by the Americans with Disabilities Act (ADA) and must be complied by their guidelines. Accessible design focuses on an environment for people with disabilities. It is rather designed by technical criteria just to meet the minimal requirements.\(^\text{30}\)

Unlike accessible design, UD concept is a “market-driven process intended to create environments that are usable by all people.”\(^\text{31}\) During the planning and designing process, people with disabilities are considered but do not suffice for the whole population since the design needs to accommodate the needs and wishes for children and the elderly.\(^\text{32}\) The seven principles in UD are: equitable use, flexibility in use, simple and intuitive, perceptible information, tolerance for error, low physical effort, and size and space for approach and use. First principle, equitable use should have designs that could be equally used by everyone and should never “isolate or stigmatize any group of users or privilege one group over another.”\(^\text{33}\) Second principle, flexibility in use should have designs usable even in “an unconventional or unanticipated manner.”\(^\text{34}\) Third principle, simple and intuitive designs should have their purposes that are understood and maneuverable by everyone.\(^\text{35}\) Fourth principle, perceptible information should have “essential information in a variety of modes…to ensure effective communication with all


\(^\text{31}\) Ibid., 18.

\(^\text{32}\) Ibid., 18.

\(^\text{33}\) Ibid., 19.

\(^\text{34}\) Ibid., 19.

\(^\text{35}\) Ibid., 19.
users regardless of their sensory abilities.”\textsuperscript{36} Fifth principle, \textit{tolerance for error} is where users of the design receive warning signs to a variety of their sensory abilities that anticipate potential hazardous accidents or unintended actions to minimize harm from the users.\textsuperscript{37} Sixth principle, \textit{low physical effort} design should employ features that “require little or no physical force to use them.”\textsuperscript{38} Seventh and last principle, \textit{size and space for approach and use} should be designed adequately in buildings for anyone to use.\textsuperscript{39}

There are critics of these principles that are “vague and difficult to understand [or]…more applicable to product and graphic design than building design.”\textsuperscript{40} Since DeafSpace is basically about principles between the deaf experiences and built environment while UD is a concept with the intention of creating an environment that is usable by everyone, we will see how the concept of DeafSpace, particularly \textit{sensory reach} and \textit{space and proximity}, contribute to principles of UD in \textit{equitable use}, \textit{flexibility in use}, \textit{perceptible information}, and \textit{size and space for approach and use}.

Since my data is based on the interview that took place in the subjects’ offices, which is in their workspace, the focus here will be DeafSpace concepts and UD principles in the workplace. The concept of DeafSpace can contribute to the principle of equitable use where people can share sensory reach in the offices. Suppose a person is approaching an office where the Deaf person and hearing person are in the same room, they will be able to see and hear someone approaching the office they are in. With this DeafSpace concept, it also contributes to the principle of flexibility in use in offices.

\textsuperscript{36} Ibid., 19.
\textsuperscript{37} Ibid., 20.
\textsuperscript{38} Ibid., 20.
\textsuperscript{39} Ibid., 20.
\textsuperscript{40} Ibid., 19.
because the Deaf person and hearing person share their sensory reach that gives them awareness of the space around them. Additionally, DeafSpace fits the principle of perceptible information because it gives spatial awareness through visual or tactile reach that the hearing person can also benefit from. Lastly, the concept of DeafSpace promotes connection through collective spaces that will spontaneously bring people together suits the principle of size and space for approach and use. As we see, the concept of DeafSpace design a space that expresses naturally from the Deaf people’s ways of being also contributes to the principles of UD.

Privacy

Concept of Privacy

Now, let’s look at the term privacy. There are several definitions for that term. First, the Merriam-Webster Dictionary has a broad definition of what privacy means. It is defined as:

“withdrawn from company or observation; not known or intended to be known publicly; preferring to keep personal affairs to oneself; unsuitable for public use or display.”41

This definition is pretty broad and simple. In other words, it means not to be seen or known in public.

Then, Alan F. Westin defines privacy, as

“the claim of an individual to determine what information about himself or herself should be known to others.”42

41 Merriam-Webster n.d.
In a way, Westin claims that individuals have a choice of what information can be known or not while *Merriam-Webster* defines privacy as if individuals choose information not to be seen or known in public. In other words, Westin’s definition claims that individuals have control of information whether to be known to others or not.

Next, Richard B. Parker goes further into the definition of privacy in terms of senses. He writes:

> “privacy is control over when and by whom the various parts of us can be sensed by others. By “sensed,” is meant simply seen, heard, touched, smelled, or tasted. By “parts of us,” is meant the part of our bodies, our voices, and the products of our bodies. “Parts of us” also includes objects very closely associated with us. By “closely associated” is meant primarily what is spatially associated. The objects which are “parts of us” are objects we usually keep with us or locked up in a place accessible only to us.”

Parker’s definition has a similar principle to Westin’s definition where individuals have the ability to control their information to be known or “sensed by others.” Here, Parker’s definition is not only limited to information, as Westin defined, but also associated by the person’s presence through sense or objects “closely associated.” Otherwise, in a sense, there is no control of privacy when others sense parts of us.

With this general concept of privacy enlightened, we will now analyze the applications of privacy in a psychological sense:

> “Psychological privacy comes from a sense of control over access to oneself or one’s group. It includes control over transmission of information about oneself to others control over inputs from others. This concept of privacy assumes that people try to maintain an optimal level of social contact, and dissatisfaction results from being in situations that deviate from what a person considers optimal.”

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43 Parker 1974.
Too little social contact might produce feelings of isolation; too much might produce crowding.\textsuperscript{44}

Notice how the concept of privacy is still carried over here where the sense of control is still into play. Here, psychological privacy defines the concept of privacy itself into people by having control of access as individuals or groups. Now, we will see how this application of privacy in psychological sense becomes grounded into an architectural sense of privacy:

\textit{Architectural privacy} refers to the visual and acoustic isolation supplied by an environment. A work area completely enclosed by soundproof walls with lockable doors embodies a high degree of architectural privacy; a large room in which many people occupy an undivided space would give minimal privacy. Architectural privacy may contribute to psychological privacy because people in private quarters can control their accessibility to others more easily than in open and visible places.\textsuperscript{45}

Here, privacy is maintained with the help of architecture while enabling people to control who has visual or acoustic access, or in Westin’s case, sensory access. Although Parker’s definition of privacy is dated from an earlier time, current studies in the field of architecture still cite his definition on the concept of privacy. Sundstrom, Burt, and Kamp then apply Parker’s concept of privacy related to isolation and crowding in architecture, particularly at workspaces. From what we have seen here, we saw how the concept of privacy was defined then applied into how it is controlled through senses. It then went into psychological senses that lead to having the concept of privacy designed from something materialistic.


\textsuperscript{45} Ibid., 102.
Short History on the Concept of Privacy

Witold Rybcznski, author of *Home: A History of an Idea*, wrote about how the concept of privacy came about from the history of homes. He studied an engraving *St. Jerome in His Study* done by a great Renaissance artist, Albrecht Dürer. This engraving had an old man bent over in writing. This old man was a hermit alone in his own room. During the sixteenth century, it was unusual for individuals to have their own room. Since the name says that this hermit was in his *study*, it was actually a multipurpose room and considered to be public. Although, the engraving appears to show that the study was a calm, quiet, and secluded place, houses back then were typically full of people and “privacy was unknown.”

During the Middle Ages, the nobility was mobile. They “moved their household with them.” This explains why medieval furniture was portable or easily reassembled. Also, medieval homes had large rooms but lacked furniture. Often, medieval houses would go up to twenty-five people at a time and this include people who are not immediate family members. On a side note, the “concept of privacy is also absent in many non-Western cultures, notably Japan. Lacking an indigenous word to describe this quality, the Japanese have adopted an English one – *praibashii*.” As we see, the concept of privacy was unknown or did not exist at some point in time and in specific culture. This shows that the concept of privacy depends on the context it lays in.

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47 Ibid., 18.
48 Ibid., 26.
49 Ibid., 26.
50 Ibid., 28.
51 Ibid., 28.
DeafSpace and Privacy

The short history of privacy shows that its concept is influenced in different contexts. The concept of privacy in DeafSpace has not been studied in the field of Deaf Studies. Although, DSDG stresses the importance of visual access, sensory reach, and collectivism, it does not necessarily mean it lacks the concept of privacy. There have been mentions about private space and semi-private space designs, but the on concept of privacy in DeafSpace. Interestingly, the idea of collectivism in DeafSpace also seems to suggest the privacy cuts off sensory reach, thus, feeling of disconnect from their sensory world and becoming isolated.

This project notes the concept of privacy has not been taken up in academic studies of DeafSpace to date and explores whether this concept can be found in the ways Deaf people adjust to their lived environments. What little has been written of privacy implies that when Deaf people much privacy, they isolate themselves from the world. “For deaf individuals, open spaces that allow for visual control over the surrounding area bring a sense of security and well-being. Too much enclosure creates feelings of isolation from other members of the deaf community. Too little enclosure creates feelings of exposure which tend to reduce concentration and productivity and increases stress.”

From here, this seems to be a dilemma between privacy in DeafSpace, where a degree of privacy may have to be sacrificed to lessen the feeling of isolation from others. This raises the question of how privacy can be designed in DeafSpace. Now, we will look into different potential designs of privacy in DeafSpace.

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52 Bauman 2010, 32.
Case Studies of Potential Privacy Designs in DeafSpace

There are some existing and designed spaces we will analyze how they may constitute privacy in DeafSpace in an architectural manner. Case studies we will look into are: enclosures, eddies, sites, and designs.

Enclosures

The role of enclosures plays a role of privacy in DeafSpace. DSDG defines private space as a room with balanced enclosures and openness where the occupant face toward the open area of the room. Privacy in DeafSpace depends on the physical enclosure. As mentioned earlier, too much enclosure creates feeling of isolation whereas too little enclosure creates feeling to being exposed. Two definitions of privacy are explained here: Private Space and Semi-private space. Private Space is balanced with a degree of enclosure and openness. With the functions of a room, the deaf individual will face and open area of the room based on the comfortable field of vision and to minimize interruptions from behind, where the rear is enclosed. Semi-private space has a certain degree of enclosure that allows the individual to see and be seen by others. Since semi-private spaces are within a public space, they have a higher degree of enclosure.

Eddies

Hansel Bauman planned architectural solutions to promote the flow of motion around campus such as increasing transparency and eliminating sharp turnoffs in passageways. As he and his colleagues went further, they found it necessary to create a respite in flows to give Deaf people “privacy, a degree of enfolding enclosure, opportunities for stationary conversation.” Bauman discovered ways to design the

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53 Ibid., 32.
54 Ibid., 32.
55 Prochnik 2010, 266.
campus buildings but yet still found people form an enclosure, as the *DeafSpace Design Guideline* calls these spaces eddies, for having a private and stationary conversation in a public space. The purpose of eddies is to provide a place to “stop and have a conversation” along major pathways or corridors.\(^{56}\)

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\(^{56}\) Bauman 2010, 39.
Sites

George Prochnik, author of In Pursuit of Silence: Listening for Meaning in a World of Silence, described his experience of the two sites at Gallaudet University. One was designed as a place of contemplation and the other was designed as a lounge and social space. First, he described his experience in a spot designed as a place of contemplation: “There were high brick walls at my back juxtaposed at different angles,
and various shrubs configured around the seating areas...I found myself irresistibly drawn
to turn around – several times in the course of a few minutes...because of the
juxtaposition of wall lines and plantings, there was no way anyone sitting on one of the
benches could see another person approaching. Every arrival was a surprise, and -
especially in the absence of auditory signals – this made for an uncomfortable sense of
vulnerability. Even with the ability to hear, I felt jittery because the space left me without
a visual tether to the larger world.”

As we see, this spot was designed to be a place of contemplation yet Prochnik felt jittery. This spot, as Prochnik described, made him feel uncomfortable and vulnerable where it was a surprise every time someone comes in.

(See Figures 1.1, 1.2, and 1.3)

Second, Prochnik described his other experience in another spot at Gallaudet University designed as public social space: “The building itself was an unimpressive, drab, modern space. I gave…a questioning look and asked whether this was really the hot spot…I turned back to the vista before me and when I made myself sink into the place for a few minutes, I did feel something calming. I became conscious that I was looking over an unusually open view – the exact opposite of the previous location…By a fortuitous alignment of buildings, landscaping, and roads, the peripheral sight lines where I was standing were as spacious and open as the center of the visual field.”

58 My personal conversation with Gallaudet University students confirms Prochnik’s comments.
59 Prochnik 2010, 263-266.
described as a place that “embodies the ideas of silence, the peace we associate with quiet.”60 61 (See Figure 1.4)

As we see here, these two spots were supposedly designed for a place of contemplation and a place of socialization; however, the experience was opposite of what the designs were intended to be. The place (Figures 1.1-1.3) that was designed for contemplation was a place full of surprises at every arrival. The other location (Figure 1.4) that was designed as a social space was a place of peace and quietness.

Figure 1.3 (Seated Positions)

Figure 1.4 (View from across Seated Positions)

60 Ibid., 263-266.
61 Again, my personal conversation with Gallaudet University students confirms Prochnik’s comments.
Designs

There were case studies done by Consuelo Agnesi, an Italian architect who proposed designed space to remove barriers for the deaf. Her case studies were done on public places and residences. Examples of case studies in public places were hallways, classrooms, and offices. Other examples include residences were bedrooms, kitchens, and living rooms.  

We will look at Agnesi’s design in public places. Figure 1.7 is indicates a hallway and classroom. The three dots represents people in the classroom and the arrow shows when a person is walking towards the classroom in the hallway. This design is intended to avoid the “surprise effect” when someone enters the classroom.  

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63 Ibid., 82.
Figure 1.7 (Agnesi 2007, 82)

The next part of Agnesi’s design analysis has three case studies in the desks in an office. These cases show different layouts of how the desks could be laid out in the office. Figure 1.8 will see how the desks were designed to ensure that the door would be within the office occupants’ vision field.
Case 1 and 2 have their desks laid out to ensure that the door is always visible.

Case 3 shows four desks and Agnesi suggested the ideal location for the deaf person was in the corner of the back so the deaf person can see everyone in the room, including the door.64

The next parts of Agnesi’s case study are the layouts of different rooms in residences. Figure 1.9 shows how people outside of residences can see residents in their

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64 Ibid., 83.
homes. Marcel Renard, French architect, focused on these designs as visual checks from the entrance of the residences so visitors and residents can see each other through the windows. Each of the case study shows persons at the door can see the other persons in the other room through the windows.

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65 Ibid., 83.
Figure 1.9 (Agnesi 2007, 84-85)
Here a group of French engineers proposed designs to ensure the whole plan is visible in one stance and within the vision field. We see Case 1 in Figure 1.10 has a mirror in the corner to make the other people in the room visible. Case 2 in Figure 1.10 has glass doors to be able to see who is entering the room and sees people in the mezzanine. The proposed design by the French engineers was a great solution to ensure people in the residences could see each other from one room. Note that Case 1 uses a mirror to extend the sensory reach. The use of mirrors to stretch out sensory reach will be discussed further in this paper.

**Case 1**

![Case 1 Diagram](image)

**Case 2**

![Case 2 Diagram](image)

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66 Ibid., 86.
Chapter 1 - Introduction

The next part shows the full plan of a residence. This plan allows the residents to have “total visual control.” Each of the lines in Figure 1.11 shows the person’s vision field from different positions. The green lines indicate the position in the bedrooms. They show that the door and the window are within the visual field. The yellow lines indicate the person sitting in the living room where the window, entrance, and kitchen are within the visual field. Lastly, the red lines indicate the person in the kitchen where the living room, entrance, window, and bathroom door are within the visual field. Again, the layout in Figure 1.11 enables the person to have full visual control in this layout.

Figure 1.11

67 Ibid., 90.
68 Ibid., 90.
Architects from Italy, Emanuela Zecchini and Consuelo Agnesi, did these case studies to propose design solutions for all types of physical and sensory disabilities. Zecchini and Agnesi’s purposes of these designs was to create equal access everyone.\footnote{Ibid., 104.}
Chapter 2 Deaf Spaces Within Historical and Cultural Contexts

DeafSpace in a Historical Context

Let’s look at the history how Deaf spaces came about. Historically, there have always been places where Deaf people were together like deaf schools and clubs.\textsuperscript{70} In the early 19\textsuperscript{th} century, the field of medicine was emerging and people were starting to be treated as subjects rather than human beings. They would be “corrected through medical treatment, no matter what the physical ailments were.”\textsuperscript{71} We will see through the history of deaf people going through series of treatments and being controlled by hearing people especially in medical approaches. Before we start, Michel Foucault’s \textit{Panopticism}, an architectural figure based “at the periphery, an annular building; at the centre, a tower; this tower with wide windows that open unto the inner side of the ring; the peripheric building is divided into cells, which extends to the whole width of the building.”\textsuperscript{72} This panopticon was designed to inculcate the feeling of self-control in individuals to behave in a sense as if they were constantly being watched. Padden and Humphries discussed Foucault’s analyses on asylums “creating…new power not only to observe, but also to label and regulate the movements of individuals.”\textsuperscript{73} So, they suggested the panopticon connects with Foucault’s analysis on asylums since the purpose of asylums was used to respond to the problem of “deaf children living among hearing people.”\textsuperscript{74} The intention

\textsuperscript{71} Malzkuhn 2009, 7.
\textsuperscript{73} Padden and Humphries 2005, 30.
\textsuperscript{74} Padden and Humphries 2005, 12.
of this was to determine how deaf boys and girls should do and “how they should interact with their teachers and other caretakers in the school.” Asylums were in “the business of treating people.” Deaf people were sent to asylums for education. They were “viewed as a rehabilitative process, in either giving them access to faith through language or to prepare them for life.” The asylum became a place for deaf people for about two hundred years. The asylum became their place. Eventually, deaf people were out of the asylum and carried their essences to their new places. Although deaf people were free and had their own culture and language, they were still on loans from communities or government. Later, the designs of asylums became used in institutions and are now what we know as “Deaf Residential Schools” Still, these buildings were still built by their state governments. Most of the spaces deaf people occupied were designed by hearing people. Also many of the buildings were lent or leased to deaf people. Whenever people wanted to give themselves a place of home and a sense of ownership, they often turned to their local deaf clubs.

As we have seen, Deaf people have often been conceived of as subjects to hearing people. We also saw that hearing people designed places for deaf people like the asylums with the intention of controlling them. Hearing people did not only take over the design to control the deaf, but also took over control of how Deaf clubs were run, which will be

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75 Ibid., 12.  
76 Malzkuhn 2009, 10.  
77 Ibid., 10.  
78 Ibid., 11.  
79 Ibid., 11.  
80 Ibid., 12.  
81 Ibid., 13.  
82 Malzkuhn 2009, 15.  
83 Padden and Humphries 2005, 30.
discussed later. Deaf people were treated as subjects that needed to be “corrected” and were placed in asylums. They were always watched and monitored and behaviors of being constantly watched instilled in the asylums that benefited from Foucault’s panopticon. Throughout their experience, they never had a complete sense of privacy because private spaces were not built in asylums.\(^\text{84}\) As noted, the instillation of being constantly watched while being treated as subjects to be corrected was deeply rooted inside of them. Recall, the asylum was their place two hundred years and it became their place along with other deaf people together. Then the regimen asylums carried on into deaf residential schools. The instilled behaviors of constantly being watched as a group of Deaf people resulted from panopticism. This echoes other scholars who focused on schools as a home but were “controlled by hearing people and hearing rules.”\(^\text{85}\) This resulted to strengthen culture within Deaf people when they carved out spaces for themselves in dormitory spaces through sign language. This could indicate, “schools were places where deaf people created 'collective' privacy against hearing nonsigning adults, but not spaces for individual privacy.”\(^\text{86}\) This indicates that Deaf people probably did not have that peace of mind where they felt like they were not watched and have a sense of privacy, security, and ownership. So, turning to their local deaf clubs gives them the feeling of privacy, security, and ownership as their escape from that panoptic feeling.

In residential schools, this is where the importance of identity and community is developed.\(^\text{87}\) Also, Deaf students form relationships with each other and would refer to

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\(^{84}\) Ibid., 15.
\(^{85}\) Personal conversation with Dr. Murray.
\(^{86}\) Ibid.
each other as “a family of brothers and sisters moving onwards and upwards.”\textsuperscript{88} That being the case, it also suggests that this is where the sense of collectivism became inherent and carries into Deaf clubs.

Deaf clubs was another cultural site besides residential schools.\textsuperscript{89} It is quite interesting how Deaf people turn to local clubs. Most of the Deaf people either could not or chose not to live close to each other. Deaf clubs were the backbone of the Deaf community and were “absolutely vital to [Deaf] community life.”\textsuperscript{90} Deaf clubs were not only the focal point of the community, but as an entity where “Deaf values and norms are passed down.”\textsuperscript{91} This is to say that Deaf clubs were places where values are formed, maintained, and nurtured.

Deaf clubs used to open for social activities like church, workshops, drama, or lectures. Later, they opened up more often for groups as such as “youth groups, senior citizens’ activities, sporting activities and women’s groups, as well as regional and national Deaf meetings.”\textsuperscript{92} While there seem to be a wane in social activities, there was a significant increase in hard of hearing groups and sign language teaching classes.\textsuperscript{93} Besides Deaf clubs, there were also Deaf people who were involved with sports and other social activities. These gave Deaf people opportunities to travel and network with others in other regions and nations.\textsuperscript{94}

\begin{flushleft}
\textsuperscript{88} Ibid., 299.
\textsuperscript{89} Ibid., 332.
\textsuperscript{90} Ibid., 46.
\textsuperscript{91} Ibid., 46.
\textsuperscript{92} Ibid., 46.
\textsuperscript{93} Ibid., 46.
\textsuperscript{94} Ibid., 48.
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Interestingly in the United Kingdom, hearing people did not only take over the designs of places for the deaf, they also took over how Deaf clubs were run. There were original Deaf clubs that were created by the Deaf themselves but were later taken over by the “Mission for the Deaf” while others were built by the missions themselves. This resulted into a “two-tier administrative structure” consisting of hearing people in the management and mainly the Deaf people on the committee.\(^95\) Ladd claimed this to be “the essential colonialist structure.”\(^96\) By 1980, most of the missioners dissolved from the setting, but the two-tier structure still stood by then.\(^97\) The title of Missioners changed over the period around the 1920s and 1930s including, “Welfare Officer (WOD) and “Social Worker.”\(^98\)

Here, Missioners were considered to be representative of the Deaf in society. They “facilitated and controlled people’s access to the society which surrounds them.”\(^99\) They had the power to claim that they understood what was best for Deaf people and this caused tension between the Deaf committees. Most of the missioners were children of Deaf parents. Ladd suggests that this cultural status implies something but needs to be further looked into.\(^100\)

Within the Deaf clubs, there were class differences and were referred to as “upper and lower groups.”\(^101\) It was felt that 25% were the upper group and 75% were the lower

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\(^95\) Ibid., 332-333.  
\(^96\) Ibid., 333.  
\(^97\) Ibid., 333.  
\(^98\) Ibid., 333.  
\(^99\) Ibid., 334.  
\(^100\) Ibid., 335.  
\(^101\) Ibid., 336.
group. Interestingly, there are middle-class Deaf groups “who were ‘in’ with the missioner.” The middle-class groups were described by their signing style based on their restricted signing space; “instead of the full body use it would be reduced to a small area in front of their chest. And their facial expression maybe wasn’t as open…” They were also linked to their hearing parents, where they were handed money from their will but were not better-educated. Ladd suggested that the middle-class groups lacked their convenience and is consistent with his concept of Deaf people as subalterns. Subalterns are “people [who] are denied meaningful access to ‘hegemonic’ power.” Here, Deaf people were oppressed by other Deaf people.

Although, there are class differences between the middle class and working class Deaf, there is an underlying factor that keeps them drawn to each other in Deaf clubs through culture, sports, outings, and Deaf consciousness through reciprocity and sign language. As we have seen, Deaf people still had connections with each other and formed spaces through Deaf clubs despite the differences between members of different classes within Deaf clubs.

Deaf clubs were not merely meeting places, but also “brick-and-mortar buildings.” As discussed earlier, Deaf people created spaces in dormitory spaces as ‘collective privacy’ spaces against hearing, non-signing people. These ‘collective private spaces’ were brought into Deaf clubs as well. Unfortunately, these Deaf clubs declined

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102 Ibid., 336.
103 Ibid., 336.
104 Ibid., 337.
105 Ibid., 337.
106 Ibid., 337.
107 Ibid., 81.
108 Ibid., 360-366.
109 Padden and Humphries 2005, 95.
and almost all of the buildings have been sold off. As a result, their places became more fluid and met on borrowed and temporary spaces. In other words, Deaf people’s collective privacy spaces became more fluid on borrowed and temporary spaces.

Conferences and workshops were hosted in “borrowed hotel ballrooms and meeting spaces…[only] for a few days and then leaving until the next meeting.”\textsuperscript{110} With the declined number of Deaf brick-and-mortar clubs, they often relied on borrowed space or buildings controlled by others.\textsuperscript{111} As we have seen, there is a shift from Deaf owned spaces to borrowed spaces. I presume that that the borrowed spaces by Deaf people were designed by hearing people, not by Deaf people. Still, without the brick-and-mortar buildings, Deaf people still got together and were able to form their collective private spaces.

As we have seen, hearing people took over the architectural designs of places for the deaf and took over how Deaf clubs were run. Historically, Deaf residential schools were originated as asylums then institutions. This perpetuates hearing control over Deaf students. Further, hearing people also took control in Deaf clubs then causing tension between Deaf people in these clubs. Although there were tension and Deaf places designed by hearing people, Deaf people were still able to form spaces within places designed by hearing people. Currently, there are known Deaf organizations that took over spaces that were originally designed by hearing people then were renovated by Deaf people such as the Auckland Deaf Society in New Zealand and the Edmonton

Association of the Deaf in Canada.\textsuperscript{112}

\textsuperscript{110} Ibid., 95.
\textsuperscript{111} Ibid., 99.
\textsuperscript{112} See websites: \url{http://auckland-deaf.org.nz/} and \url{http://www.aadnews.ca/}. 


DeafSpace In a Cultural Context

Proxemics of DeafSpace

Now we will look at DeafSpace through proxemics lens and literature. Proxemics studies show there are patterns in the use of eyes especially for Deaf people. Bahan discussed a couple cases related to proxemics uses of the eyes. With two Deaf people, they have a one on one space formed directly from each other. When a third person shows up, they form a triangle. When more people join the group, the triangle shapes are still maintained. This whole system is based on being able to see each other in the group. The bigger the group, the triangle is still maintained even when a circle is formed.  

In the 2000s, studies showed that Deaf people have enhanced peripheral vision, but this does not necessarily mean Deaf people can see better than hearing people. Hearing people leave their peripherals to their hearing. So every time they hear a sound, they hear it then turn to it. On the other hand, Deaf people are more sensitive and can recognize details in their peripheral visions. Because of this, Deaf people are able to read the world for sound through visual cues that lead them to the source of the sound. For example, when a Deaf person sees hearing people glancing at something, the Deaf person can see that they are looking at something and lead to the sound. Another way they read sound is through animals such as pets. For example, there was a time at night when Bahan was downstairs with his dog while his child was upstairs, his dog twitched its ears and looked up. Then Bahan knew his kid was still up and went to check up on his kid.

115 Bahan, Chapter 6 2009.
As a Deaf person growing up, this person learns to receive feedback from the environment and naturally practice on the act of eye-perception. For example, when a Deaf person leaves the room, this person should look back again for any last-minute calls. So this is how Deaf people were able to identify another Deaf individual based on their behavior and use of their eyes to read the world around them.\(^{116}\)

Besides reading the world for sound, there was another type of proxemics study by Robert Sirvage on how Deaf people navigate through space while conversing in ASL. This study suggested that there is an imaginary axle between two Deaf people. If one of them moves, the other will move to maintain the distance of the imaginary axle.\(^{117}\) Another case study on the proxemics of walking signers shows how two signers converse while navigating through space. This study focused more on the use of signing space and how much eye contact both signers make while walking.\(^{118}\) While navigating through space, they maintain eye contact while being aware of the space around them.

With all these studies by Bahan and Sirvage, we see that Deaf people use their eyes to read the world around them. Bahan mentioned that the value weighed on the eyes in Deaf culture.\(^{119}\) In other words, we see that their studies prove that Deaf people live in a visually heightened sensory world.

\(^{116}\) Ibid.
\(^{119}\) Bahan, Chapter 6 2009.
**DeafSpace in Art and Literature**

Bahan also discussed about themes related to eyes in the arts and literature of the Deaf. The common themes and motifs in ASL Literature are doors and windows.\(^{120}\) He quoted: “Door is to hearing as window is to deaf.”\(^{121}\) To elaborate, for a hearing person, they still have communication access through a door but not through a window; on the other hand, for a deaf person, they do not have communication access through a door, but can have communication access through a window. So for a hearing person, if the window is closed, they’ll find a door to communicate. Opposite is true for a deaf person, if the door is closed, they’ll find a window to communicate. This is common in ASL literature form. Hearing people use the window as a mechanism to shut the other person out whereas deaf people use the window as a mechanism to communicate.\(^{122}\) For example, one scene in the movie *This is Spinal Tap* one band used the window as a mechanism to shut the driver up.\(^{123}\)

Bahan mentioned that two ASL stories by Ella Mae Lentz and Elinor Kraft had themes about the door symbolized as a communication barrier and window as an opportunity for the Deaf. First, Lentz’s poem called *The Door* was about a Deaf person being locked in the room and there was someone that was banging on the door. This Deaf person was hesitant to open the door because the person outside the door was not visible to the Deaf person. Unlike a hearing person, they could speak and still talk through the door.\(^{124}\) Another ASL story by Elinor Kraft was about being locked out. In this story, the

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\(^{120}\) Bahan, Chapter 7 2009.

\(^{121}\) Ibid., Chapter 7.

\(^{122}\) Ibid., Chapter 7.

\(^{123}\) Christopher Guest, Michael McKean, Harry Shearer, and Rob Reiner. *This is Spinal Tap*. Directed by Rob Reiner. 1984.

\(^{124}\) Bahan, Chapter 7 2009.
husband got locked out, so he looked for a window as an opportunity to get ahold of his wife by spraying the hose through the open window. Bahan also mentioned a painting of a coffin door by Harry R. Williams. He analyzed that the coffin door acted as a barrier to information behind the door and a window we could see far beyond through it. As mentioned, the doors symbolize as barriers as opposed to windows as opportunities in communication. As we see here, doors and windows are metaphorical representations of barriers and access. This shows that the art and literature reinforce concepts in DeafSpace, particularly on sensory reach. Closed doors cut off visual access while windows extend visual access.

125 Ibid., Chapter 7.
126 Bahan, Chapter 6, 2009.
Chapter 3 Methodology

Methods

The research methods here used are qualitative and video simulation/modeling research. Qualitative research was done through interviews along with video simulation/modeling research. Since the subjects are assumed to have no prior background in the concept of Deaf Space, video simulation/models of offices were used and do not require extensive understanding of the concept of Deaf Space. As a Deaf researcher who had training in Deaf Space and basic experience in Real Estate with Deaf clients, the training and basic Real Estate experience gave me the necessary tools and advantage how to interview the subjects to gather information empirically. This method intends to find out how Deaf subjects express privacy through their experience as Deaf individuals. Additionally, video simulation/models were used to materialize how privacy was maintained by showing them minimal design concepts. This enabled them to give them minimal details and allow to critic the models. Again, this did not require them to have a background in Deaf Space.

Subjects

The subjects of this study were Deaf office occupants who current hold an office in the Sorenson Language and Communications Center (SLCC) at Gallaudet University in Washington, District of Columbia. Other demographics such as race, age, and ranks/positions have been collected but not analyzed because results of the data have not shown clear or strong connection between them. For example, differences in age showed no differences of behaviors or reactions in the same space. More reasoning on this will be discussed in the conclusion chapter. Also, these subjects use American Sign Language, a visual language, during the research and interviews. The interviews took about an hour in
duration. Since this research is to analyze what privacy is in Deaf space, the interview took place in their office. This way the researcher can gain optimal information from the subjects in the offices they are comfortable and familiar with. There were no prior preparations for the subjects but, as mentioned, they were to be Deaf and currently hold an office in the SLCC.

**Constraints**

The constraints of the data were based on the layouts of the offices based on the positions of the desks, desktop computers, laptops, videophones, doors, seating positions, vision fields, mirrors, windows, office space, and office proxemics. Again, these constraints do not necessarily represent the quantitative data because they are objects that affect their experience in the space they use. The focus is not about the size of the office or objects but how the Deaf office occupants adjust within the given layout to maintain their workspace.

**Control Group**

If there were more time given, then the control group would have been hearing office occupants. This could give the investigator something to compare the layouts of Deaf and hearing office occupants in similar workspace settings and how they maintain their space and privacy. However, this was not possible at this time due no response from IRB for approval.

**Protocol**

Since the subjects are Deaf and use American Sign Language, the interviewees were with a high-definition digital camera to optimize the use of ASL since writing this research in English may not interpret exactly how it was originally expressed in ASL. Before proceeding with the interviews, the interviewees were given a consent form to
give permission to be recorded or not. If the interviewees gave consent to be recorded, then this will allow the interview to be more naturalistic and conversation-like without any interruptions to take notes during the interview. However, if the interviewee declined consent, it will be more likely to be less natural since notes will have to be taken during the interview. This may be quite challenging but still doable. Either way, the plan of the interview does not necessarily need to change. Since the researcher is Deaf had prior training in the concept of Deaf Space, the researcher was able to wean out the most from the interviewees as much as possible by asking follow-up questions to their answers for elaboration. The advantage of this Deaf researcher was the ability to connect and relate to the Deaf interviewees with shared epistemology and sensory experience. Also, the researcher had some experience in real estate and dealt with Deaf clients looking at a home. Altogether, this gave the researcher the necessary tools to get the most out of the Deaf interviewees without any coerced questions to get the specific results but by doing empirical studies.

By empirical studies, the interview questions were set up with the intention of allowing the interviewees to express themselves in a manner to share their epistemology and experience. Interview questions started off by the focusing on the interviewees, within the offices, then beyond the offices.

**Interview Setup**
Here, we will see how the interview questions are set up and explain the purposes of each part. Interview questions can be seen in the appendix. The first part of the interview focused on the basic biographies of the interviewees such as their current position, length of time in current position, and length of time in their current offices.
Before moving to the next part of the interview, they were asked how to define the concept of privacy.

The second part of the interview focused inside of the offices. It started with the layouts of the office where the desk, computers, videophones, doors, hallway settings, and usual seating positions were located and set. One of the most important part was the door because it determines how much privacy the interviewees demand in their offices, although the majority of them covered their door windows in full with translucent materials.

From this point, the doors became the focal point of the interview because it reflects how the interviewees express their degrees of privacy in a public place particularly in their offices as semi-private spaces. This part of the interview started off asking the interviewees their reasons why their door is covered or not covered then they were asked what they would do with the door when they were in their offices: available, busy but available, or unavailable. The next question was about the office lights. The interview questions were closed; however, the interview did not follow strictly question-by-question basis. Recall, the researcher was able to connect with the interviewees on the same level. As mentioned earlier, the interview was intended to be more of a conversation rather than an interview. Their answers were followed up with their personal experience to justify their answers.

The third part of the interview focused on the relationship between the interviewees and their colleagues particularly on their doors and office spaces. This part of the interview asked how they interviewees determine their colleague’s availability based on their doors. This also asked how they negotiate with their office spaces and how
far they enter their spaces. Again, this part of the interview has closed questions with follow-ups in a conversation-like manner.

Fourth and last are the questions related to modifications in their offices and beyond. As opposed to the previous part of the interviews, this part of the interview had open-ended questions. This allowed the interviewees to freely express themselves without any specifications but simply their experience on how they extend their sensory reach, respond to real-life situations, and how they would like to improve or change that. In this part, a video simulation was given to determine whether the interviewees want some forewarning of someone approaching their offices just as how hearing people could hear footsteps approaching. This then ends with the modifications the interviewees desired to have in their offices.

As we see, the interview questions were shaped from the interviewees as individuals, their offices, their colleagues, then to the relationships of space beyond their offices. It started off with themselves then led to build their personal experiences into their offices and beyond. Since there were no known studies on the concept of privacy in Deaf space, the interview part started off with closed questions to set the ground as a place for the interviewees to express their story then built upon it by leading them to open-ended questions.

**Research Methods**

The interview questions were shaped from the office spaces as a material to express privacy in the workspace for Deaf office occupants. Again, with prior training in the concept of Deaf space, the interview questions were based on architectural views. So, the research methods were drawn out from architectural research methods approach into
this interview to provide unique insights into the field of Deaf Studies. The three research methods used here were: qualitative, simulation, and logical.

**Qualitative Research**

Interviews took place in their own offices with the intention of making this more of a naturalistic and conversation-like interview. Since these are the spaces where the interviewees work at, it should be their comfortable place where they work and are familiar with.

Interview questions started off as open-ended questions related to their profession and offices. The next parts of the interview were closed-ended questions with follow-ups. Then the last part was open-ended again and spreads out go out of the office. The questions started off personal, then inside the office and doors, then beyond the offices.

**Simulation and Modeling Research**

At the last part of the interview, a video simulation of different office designs of the door was displayed to the interviewees to see how they would respond to the designs. The simulations were basic representations of the offices with the first person point-of-view facing the door. The simulation had varying designs to show someone approaching their office doors. The video simulation started off with the model of their actual office doors then showed other models with large frosted window, middle opening strip, and bottom strip. This then leads to my logical argument.

Following up with the video simulation, deductive reasoning was applied to see if the office occupants would rather have a forewarning of someone approaching or not. Prior to showing the video simulation, the office occupants were asked if they wanted to have a forewarning of someone approaching just as how hearing people could hear
footsteps approaching. By inductive reasoning - if they say yes, then they should choose other than the “Current Condition” model; otherwise, they would stick with the “Current Condition.”

Another logic approach was using deductive reasoning when offices are in specific spaces or proxemics and their doors to show their availability/unavailability. For example, those with low pedestrian flow are likely to leave their doors wide open when they are available in the office.

**Data Organization**

This was the most time-consuming process after the interview and time-consuming. There were challenges that arise here.

**Interviews**

First off, not all of the interviewees gave consent to be recorded during the interview. So for the interviews that were not recorded, the data were based on notes and by memory. The notes and memory were kept fresh by simply writing and recalling everything right after the interviews were complete. Also, the researcher recorded himself on video to recall to keep the memory fresh from the interview as much as possible. Although, during the interview, notes were taken with answers to the interview questions. After this, notes were rewritten to break down the interviews into bullet points.

For the recorded interviews, it was convenient for the researcher because the interview did not need to be rewritten but jump to watching the recorded interviews and break it down into bullet points as well. During this process, the researcher ensured that each point from the interview was noted without omitting anything even though they seemed insignificant. Each data was still important to be noted anyway.
After the interviews were broken down, the researcher went through it again to record the answers to the interview questions. After the answers were recorded, the other comments that were not relevant to the interview questions were still stored then grouped into a different section for further analysis.

For the notes that were grouped into a different section, they were analyzed to see if there any underlying themes or if they arise issues and questions not brought up during the interview. For example, many of them had implications where increasing privacy decreases sensory reach.

**Recording Notes and Data**
A chart was made through a spreadsheet program - Microsoft Excel or iWorks’ Numbers - to match the interviewees’ answers to the questions from the interview. Each of the interviewees was labeled by numbers for anonymous purposes.

Recall how the interview questions were set up with closed questions. The answers were accumulated to see how many of the interviewees chose specific answers to the specific questions. For example, 3 offices are in the node spaces, 3 offices are in the hallway spaces, and 3 offices are in the alcove spaces. This was only the beginning of raw data collection. As we see, it was strictly numerical, nothing visual. Once the numerical data was collected, they were recorded into a chart by using a spreadsheet program (this could be either, iWorks Numbers or Microsoft Excel) with the list of interviewees and their answers to each question.

**Normalizing Data**
For visual convenience, the charted data was color-coded to help recognize patterns and connections between each data. This lead to having the data normalized. For example, the color-coded data chart showed those who primarily used laptops would be
usually facing the door and they would usually have the door within their vision fields whereas those who used desktop computers would be usually facing away from the door and have the door outside of their vision fields.

**Visualizing Data**
After normalizing the rest of the color-coded data chart, the data was turned into a visual data by applying this to the SLCC floor plan in bird’s-eye view by using a designing program (Here, the researcher used presentation programs - iWorks Keynotes and Microsoft PowerPoint). The design of the data became a visual aid. The visual data started off by outlining the SLCC plan. Then each the data focused on planning the layout drawn out from the interviews into the offices individually. Once this was complete, the full plan made it easier to see the connection and relation between the offices. Again, the numerical data and color-coded data chart was drawn out into this visual data. As a result, this visual data became a visual representation of the thesis and a central focus of the data analysis.

**Formalizing Data**
Once the data became normalized, the underlying themes were identified based on the results. So the data was formalized based on the results of the data. Once the formula was set up, it became the backbone of the visualized data analysis.

**Results**
As we have seen, architectural research methods through qualitative and video simulation models were used to analyze what privacy was in Deaf space. This method focused on how the interviewees respond and adapt to the office space they were constrained in. It also shows how they maintained their space in a public space. The purpose of this research method was to wean out how privacy is expressed through the
epistemology of Deaf people and how the design of privacy are expressed through their sensory experience rather than how their privacy into a constrained space.

Results of this qualitative method showed how Deaf office occupants respond and adapt to the space they were constrained in and how they wanted to modify the space they were in. Although the intent of the research methods was to wean out the epistemology of Deaf people, results also showed that the majority of them did not express freely how they wanted to radically turn the office around such as changing office space, layout, shape, desks, chairs, and others in the office they were constrained in.

Video simulation methods showed to be beneficial for the interviewees because it gave them something they never thought of before. Their reactions of the video simulations show that the models were not something they thought of before. During the interview, the researcher gave questions that allowed the interviewees to provoke their analysis on each of the models. Also, the interviewees were able to critique how some of these models should be modified or point out some things they disliked. The models shown at the interview were as simple as possible to allow the interviewees to analyze in their imaginative ways possible. As opposed to the qualitative methods, the video simulation methods enabled the interviewees something to see since they did not possess the necessary tools or background in Deaf space, which the researcher already had. The video simulation models showed four models – Current Condition, Model 1, Model 2, and Model 3 (See Figures 4.47-4.50). The video showed a ball that rolled by the to give a similar feel as if someone just passed by the office.
Revisions of the current interview questions and set up could be looked into for future research. A few to mention are: rewording of the questions for clarity and making it more specific, choosing relevant and removing irrelevant questions, and providing the interviewees some basic tools how to analyze Deaf space. Since the video simulation methods showed that the interviewees were able to critique and analyze the space, future interview questions should weigh more into this.

For future research into this field, life-sized office models could be an experiment to consider with moldable objects to enable the subjects to modify the office any way they want and it may not require the subjects to have a strong background in Deaf space. In a way, this would empower the subjects to express freely and radically on how they would like turn their office space around from epistemology.
Chapter 4 Data

In this chapter, I will show the results from the interviews then show how it is analyzed. From the interview, I turned the data into a visual data based on the layout from the Sorenson Language and Communication Center. This way it would be easier for the readers to follow through my data. I labeled my data into five groups: Office Space and Proxemics, Office Layout, Occupant’s Doors, Colleague’s Doors, and Interviews.
Office Space and Pedestrian Flow

Figure 4.1
Figure 4.2
Office Layout

Figure 4.3
Figure 4.4

Existing Mirrors and their Reach
Figure 4.5

Desired Mirrors and their Reach
Occupant’s Doors

Full Transparent Cover
Nothing Covered

Legend

Office Doors

Figure 4.6
Occupants’ Doors When Available
Occupyants’ Doors When Busy but Available
Occupants’ Doors When In Office but Unavailable
Occupyants’ Assumption on Colleague being Available or In Office
Occupants’ Assumption on Colleague being Unavailable
Occupants’ Assumption on Colleague’s Closed Door - Available or Unavailable?
Occupant will look through colleague’s door when door is closed and not covered?
When occupant finds colleague in office, will wait at Door (WD) or Go In (GI)?
“Door Language” the Norm or by Nuances?
Occipant visually forewarned of someone approaching?
Leave note on door when in office but unavailable?
Use technology to contact colleague when colleague is not in office?
Office Size: Crowded, Spacious, or Content?
Use office lights?

Legend

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<th>No</th>
</tr>
</thead>
<tbody>
<tr>
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<td><img src="image" alt="No" /></td>
</tr>
</tbody>
</table>
Video Simulation/Model - Picked other than “Current Condition”?

Figure 4.23
Currently holds or held a position as Coordinator or Chair
Data Analysis

Now I will show how the data is analyzed here. Analysis will be on the layout, doors, notes on doors, office lights, uses of technology, window modifications, forewarning, and video simulation/model. We will now analyze the data.
Analysis on Layout

Figure 4.25
Desktop Users

Figure 4.26
Figure 4.27
Figure 4.28
Laptop Users

Figure 4.30
Figure 4.31
Figure 4.32
Figure 4.33

Laptop User’s Mirrors and Their Reach - Desired
As we see from the existing layout, it shows the participating interviewees’ desk layout, computers, videophones, and mirrors. The next part identifies the desktop users and the laptop users. Their vision fields show their usual seating positions. Comparing their vision fields, the doors are usually outside of the desktop users’ vision fields whereas the doors are usually within the laptop users’ vision fields.

Next, we will analyze how they set up their mirrors. The existing mirrors in the desktop users’ office are inside the office, but mirrors for the laptop users are outside the office. This suggests that desktop users would likely have their mirrors set up inside the office whereas laptop users would likely set up mirrors outside of the office. This suggestion seems to be confirmed when I asked the interviewees where they would place their mirrors. (See desired mirrors set up.) Notice how the desktop users would like to set up their mirrors inside the office while most of the laptop users would like to theirs outside of the office.

During the interview, all of them mentioned the importance of being able to see the door just in case someone is at the door. For the desktop users, it was important for them to have to be able to see the door just in case someone is at the door. For the laptop users, they are already facing the door. So they extend their reach beyond the office by adding a mirror outside of the office within their view to with the intention of being able to see someone approaching or be aware of their surroundings. Interestingly, one of the laptop users only has mirrors within her office. She did not consider adding mirrors outside her office because she already sees someone approaching as they enter the room.

Another way how they show the importance of the door was the suggested idea of modifying the desk. A couple ideas: portable or murphy table, horseshoe-shaped table,
relocate table, and table position to be seated back against a corner of the wall. First, the portable or murphy table enables the office occupant to adjust the seating position and the room’s size for signing space when more than one student meet in the office for a discussion. Second, the horseshoe-shaped table enables the office occupant to see read the desktop or use the videophone while having the door within the vision field. Third, relocate the desk to be able to have the door within the vision field. Fourth, have a semi-circled table that seats the office occupant into the corner to match the vision field. Clearly, the door is important to be within the office occupant’s vision field. At the same time, it was important to have a wall behind them to secure their space.

Analysis on Occupants’ Doors
During the interview, I asked the interviewees how they leave their doors: wide open, partially open, ajar, or closed depending on their availability and unavailability. They were all asked the same questions. After gathering the results, I noticed the connection between the space and proxemics they were in. I will show how they leave their doors while they are: in the office or available, busy but available, and available. Then I will show the patterns of their doors in relation to their space and proxemics they are in each case.

To start, let us look at the office occupants’ doors when they are available.
Figure 4.34

Occupants' Doors when Available
and Office Space
Subjects were asked how they would leave their doors when they are in their offices and/or available. 7 out of 9 leave their doors wide open while 2 out of 9 leave their doors partially closed. Notice the connections between their doors and office space they are in. There are 3 offices in the node spaces, 3 offices in the hallway spaces, and 3 offices in the alcove spaces – 3 out of 3 office occupants in the node spaces leave their doors wide open; Similarly, 3 out of 3 office occupants in the alcove spaces leave their doors open; Interestingly, 2 out of 3 office occupants in hallway spaces leave their doors partially closed while 1 in the same space leaves the door wide open. There is no clear reasoning why this one leaves the door wide open.

The results of the data suggest some spaces of consistencies and inconsistencies. Here, consistencies are expected patterns of the pedestrians in the spaces, particularly the alcove and node spaces. Alcove spaces are not functioned as gathering space. When someone enters the alcove spaces, it usually means they want to see the office occupants in the alcove spaces. As for node spaces, they function as intersecting points or gathering points. So consistent flows of pedestrians are expected in these office spaces. If someone stops by at the node spaces, then this person usually wants to see the office occupants in this space. On the other hand, hallway spaces act as walkways and often have passersby. Passersby lead to cause inconsistent pedestrian flows in these spaces. Often, passersby are catches the office occupants in hallways spaces by a surprise. Clearly, they leave their doors partially open so they do not have to react like a deer caught in a headlight every time someone passes by or walks in. As discussed, alcove and node spaces have consistent pedestrian flows while hallway spaces have inconsistent pedestrian flows.

Next, let us look at the office occupants’ doors when they are busy but available.
Figure 4.35

Occupants’ Doors when Busy but Available and Pedestrian Flow
Subjects were asked how they would leave their doors when they are in their offices, busy but available. In such given cases, this means when there is a student in the office during office hours or doing some personal work but can be interrupted. 3 out of 9 leave their doors wide open and 6 out of 9 leave their doors partially closed. This appears to have a connection with the pedestrian flow. Pedestrian flow is assumed by the frequency of pedestrians. As the image shows, I suggested the pedestrian flow started from the entrance then into the department offices. The pedestrian flow is labeled as: high, moderate, and then low. As the layout shows, the 1 out of 1 office with high pedestrian flow space leaves the door partially open; 4 out of 5 offices with moderate pedestrian flows also leave their doors partially open. Subject E’s office is the only office with moderate pedestrian flow does not leave his door partially open because his window is transparent and not covered. So it makes no difference whether the door is closed or not. Lastly, 2 out of 3 offices with low pedestrian flow leave their doors wide open. Subject C leaves her door partially open because as the Chair of the department, she deals with a lot of confidential issues in the office. So, this position has obligations to ensure privacy is controlled within the office.

Finally, let us analyze the doors when the office occupants are unavailable.
Occupants’ Doors when in office but Unavailable
Subjects were asked how they would leave their doors when they are unavailable or in their offices but cannot be disturbed. Clearly, 8 out of 9 would shut their doors closed; however, Subject C is the only one who does not. Again, her position as the Chair obligates to ensure “availability for anyone like students or the provost.”\textsuperscript{127}

\textsuperscript{127} Interview, 2012.
Occupant’s assumption when colleague is:
In Office or Available

Figure 4.37
Occupant’s assumption when colleague is: 
Unavailable
Subjects were asked how they would determine whether their colleagues are available or unavailable. All of the office occupants had the same assumption, “If their door is at least ajar, then it’s safe to assume they are available.” By no surprise, all of the office occupants assumed the same, “when the door is closed, I assume he/she is not available.” This suggests an unwritten agreed rule where an open door implies the office occupant is available and a closed door implies the office occupant is not available.

Furthermore, subjects were followed up with based on the existing conditions of the office doors in the SLCC.

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128 Ibid., 2012.
129 Ibid., 2012.
Occupant’s assumption when colleague’s Door is Closed and Covered: Unavailable or Available?
Occupyant’s assumption when Colleague’s Door is Closed But Not Covered: Will check through door window?

Figure 4.40
Subjects were asked if they would peek through the windows to confirm their colleague’s unavailability if their doors are closed. 8 out of 9 said yes but 1 said no. Interestingly, Subject I, as I will call here, claimed, “I refuse to peer through the window because it would be awkward. But I would look through if the door was ajar or open.”

Naturally, the windows are opportunities of visual information for Deaf people to take advantage of.

Here in this case, the window provides visual access for communication in signed languages. “[D]oors are to hearing people what window are to deaf people.” This shows that hearing people can still hear through doors through auditory communication, but Deaf people communication through visual languages. In other words, the data shows the same for the office occupants that will naturally look through the glass rather than knocking on the door to confirm by seeing through the glass into the office.

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130 Ibid., 2012.
Occupants post note on door when In Office but Unavailable?

Legend

<table>
<thead>
<tr>
<th>Yes</th>
<th>N/A</th>
</tr>
</thead>
</table>
| N/A | Not Applicable; Did not mention anything
Currently holds or held position as Coordinator/Chair Position
During the interview, 4 out of 9 subjects mentioned leaving notes on their doors to let other people outside their offices that they are currently in their offices but extremely busy. There seems to have pattern among these subjects because the subjects who mentioned this either held or currently hold Chair/Coordinator positions. Also, they mentioned that they would turn off the flashers. Since their doors are fully covered, they are well aware that other people outside of their offices may not be able to see them in the office. So, out of courtesy, they leave the note to let the person outside of the office know that they are in the office but unavailable. In other words, they do not want to be disturbed unless necessary.

Now, why is it necessary for them to add notes on their doors? One way to look at this, if they do not want to be disturbed, then they could just keep the door locked and not answer it. The common reason for adding notes on the door is to let another Deaf person outside the office know that they are busy and will not distract or disrupt their focus and train of thoughts unless it is really important.
Occupant use technology to contact colleague when colleague is not in office
During the interview, subjects mentioned about uses of technology to communicate with their colleagues. Here, communication technology includes E-mail, text messaging, videophones, and online chat. 5 out of 9 brought these up when they find their colleague either, unavailable or not in the office. One interviewee mentioned that if one of the colleague’s door is closed, she would check if that particular colleague is online through Google chat. If it shows a little camera logo, then she knows that colleague is likely to be in the office. Another interviewee mentioned using videophone to call another office occupant if it is just for a brief discussion. In other cases, they would E-mail or text their colleague to leave a message.

**Office Lights**

As for office lights, 8 out of 9 subjects expressed their dislike of using office lights when working in their offices. Subject G is the only subject that prefers to use her office light when working in her office. Those who dislike using their office lights prefer to use natural light instead. Subject A mentioned that the “office lights felt institutional…like hospital lights.”¹³² Even though Subject G prefers to use her office lights, all subjects like to have at least some natural light in their offices. In a way, natural lights are not the only reason for windows, but they also act as information channels for outside awareness.

**Window Modification**

Subjects were asked about modifications in their offices and 7 out of 9 of them would like to have wider windows to allow more natural lighting into the office since many of them dislike using the office lights. Marvin wanted to add windows between the offices so he could see his colleagues in his neighboring offices, an idea not echoed by

¹³² Interview, 2012.
any other subject. Subject A wanted to remove his current window and add a window in front of him and within his vision field so he could either look outside or have the door within his vision field. This is most likely because his office is uniquely designed and customized compared to the rest of the other offices.

A key commonality among all subjects was that 7 out of 9 felt that there were some problems when using videophones because of backlighting from the windows. The backlight causes the signer to become dark in the video and left only to see the silhouette. The same 7 out of 9 office occupants repositioned their videophones. Subject A had his videophone connected to his personal television and Subject I prefers to use webcam through her desktop or laptop.

**Forewarning**

Subjects were asked if they have visual forewarning of someone approaching their offices. 7 out of 9 say they do not have forewarning and 2 out of 9 say they do. Subject I and Subject A have visual forewarnings of someone approaching their offices. In Subject I’s case, as soon after someone enters the door, she could see the person at a distance. Her office is at a unique position though because she is at the choke point, the only entry into and exit out of the department. In Ben’s case, he added a mirror outside of his office to stretch his sensory reach and specifically for the purpose of seeing someone approaching his office. “I can see all the way to the end of the hallway and as soon someone turns from the corner.”

Recall the desktop and laptop users’ seating positions and their vision fields. The desktop users had doors outside of their vision fields and use mirrors to ensure that the door is within their views. On the other hand, Subject A and Subject I, as laptop users,

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133 Ibid., 2012.
have their doors within their vision field with the intention of being able to see who is
approaching their offices. Below, I will show the illustration of the current layout of the
laptop users’ seating positions and mirror.

Existing Layout Condition

Figure 4.44

Figure 4.46 shows the existing layout of laptop users. As we see here, Subject I’s
purple line of sight represents her vision field. As soon someone walks into that, she can
see someone approaching. Similarly with Ben’s case, he can see someone approaching or
turning from the corner through his mirror. This way, they are forewarned when someone
is approaching their offices. Recall, Subject E’s desired to have the mirror across from his
office for the similar reason as Ben’s (See Figure 4.33).
Before Video Simulation/Model, Occupants wanted a forewarning signal?

Figure 4.45
Video Simulation/Model - Picked other than "Current Condition"?

Figure 4.46
Before showing the video simulation/models, subjects were asked if they would like to have some forewarning signal of someone approaching or not. 7 out of 9 were interested but 2 out of 9 showed reluctance. The 2 who were reluctant mentioned, “I don’t see why I need to know what is going on outside and I’m fine with just the door itself.”

After showing the video simulation/models, 7 out of 9 confirmed their interest by choosing other than the “Current Condition” model. Out of the 2, who were originally reluctant before seeing the video simulation/models, 1 picked other than the “Current Condition” while 1 confirmed the original decision by choosing the “Current Condition.” By logic, picking other than the “Current Condition” confirms the want to have a forewarning signal of someone approaching while sticking with the “Current Condition” confirms no desire of forewarning signals of someone approaching. As a result, 8 out of 9 confirmed the concept of forewarning signals of someone approaching while 1 remained indifferent. Again, when they are more aware of their surroundings, it confirms and secures their space. Thus, their privacy is secured.

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134 Ibid., 2012.
Models

Figure 4.47

Figure 4.48
Overall Comments on Each Video Simulation Models

Current Condition (Figure 4.47)

This model represents how the office doors currently look like. Before showing the models, 2 of the subjects chose this model right of the bat. They said that they had no reason to change the door as it is and were used to the “Current Condition.” After seeing the other models, 1 chose the other model but 1 was reluctant to the other models and still stuck with this model.

Model #1 (Figure 4.48)

Subject I felt like this model simulation was similar to her “Current Condition” of the office because the door allows her to see who is approaching her office already. Other subjects had similar comments about how it appears to feel too exposed. Some also mentioned that they would prefer if it was clear to they could see who passed by, but at the same time would like to add blinds to allow them to adjust their privacy. One also thought that the problem might be shelves that might be blocking the view.

Model #2 (Figure 4.49)

This model seemed to be favored the most compared to the other models. “This is similar to how hearing people can hear someone approaching but do not know whom it is.”\(^\text{135}\) It was emphasized that the middle strip should be at the eye level when seated.\(^\text{136}\) 3 of the interviewees were either reluctant or disliked this model because of it does not show who is approaching or passing by.

Model #3 (Figure 4.50)

\(^{135}\) Ibid., 2012.  
\(^{136}\) Ibid., 2012.
This model seems is favored the least because the common concern by the interviewees is the desk might block the view due to their current office size. If the office size was longer then it might have changed. “This might encourage weird behaviors of people outside who might try to peek underneath which may be weird or eerie for the office occupant when they see that.” Also, 4 subjects did mention that the shelves might be blocking the view. Although most of them did not favor this one, Subject I liked it because it gives the office occupant more control compared to Model #2. “Model #3 allows the office occupant to see someone outside first rather than the person outside seeing the office occupant first.”

As we have analyzed here, it shows the designs of the current office layouts do not naturally fit with the individuals of Deaf office occupants. Subjects had to adjust to the office constraints within the office and some for outside the office. The constraints within the offices were fixed, especially the desks and the desktop computers. The space and constraints were not tailored to their sensory experience. The office plan was a sociofugal space, where the offices were lined up like “prison cellblocks.” Sociofugal spaces are designed in fixed rows and “tend to keep people apart.” This type of design limits sensory reach and connection between the subjects.

\footnotesize
\begin{itemize}
\item \textsuperscript{137} Ibid., 2012.
\item \textsuperscript{138} Ibid., 2012.
\item \textsuperscript{139} Ibid., 2012.
\item \textsuperscript{140} Hall 1990, 108.
\end{itemize}
Closing

As we see here, the subjects showed the importance of being able to see the door in their offices. The door itself is a threshold to their office space. They use their doors to enable to them control their space in the office. Being able to close or open the doors allows the office occupants to control their threshold and space for others outside of their offices to show whether they are available, busy, or unavailable.

Interestingly, the laptop users position themselves to be facing the door while the desktop users position themselves away from the door. The factors here are laptops are portable where desktops are not. So this makes it not possible for the desktop users to adjust their seating positions compared to the laptop users.

This appears to impose a problem for the desktop users because the desktop users have the doors outside of their vision fields. Often, they use mirrors to solve that problem. The mirror they have or desire to have allows them to conveniently see the door within their vision fields. On the other hand, laptop users use mirrors for a different purpose. They use it to see someone approaching their offices by setting up mirrors outside of their offices.

In fact, the laptop users and desktop users use mirrors to extend their reach either to see behind them or see outside. Either way, it’s to extend their sensory reach. Again, the door is the threshold. So the desktop users have to secure their office space by securing the threshold within their vision fields and the laptop users stretch their threshold further outside their offices as a forewarning when someone is approaching.

Another way to show how these subjects want to secure their space is their choices of the video simulation/models. While showing them the video simulation/models, their reactions showed that these models did not cross their minds.
before. The majority of them chose other than the “Current Condition” and the data shows that they do want to be forewarned of someone approaching just as how hearing office occupants could hear someone approaching. However, the video simulation/model assumes a person walking by the office one way. Still, it shows that they have that natural desire to know their surroundings without consciously realizing it.

Besides the video simulation/models, most of the subjects mentioned about spatial relationship beyond their offices. Although, they want to maintain their privacy, they also would like to be aware of their surroundings. As mentioned earlier, mirrors and windows were ways to extend their sensory reach and enable them to see the colleagues. Ben’s idea was to have the plan redesigned where the office occupants could see their students entering or in their collaboration space. The current design at the SLCC shows the collaboration space first then most of the offices in the back. Subject A also mentioned that offices should be built around the public or collaboration space so the office occupants can feel connected with the space outside. The idea of the Massachusetts Institute of Technology’s Media Lab inspired him to this idea. Subject C also mentioned the design at the ASL & Deaf Studies Department’s former location at the Hall Memorial Building where students have to pass the office occupants’ office prior to the student area. This allows the office occupants to see who entered or left the room. So this implies the importance that relationship beyond the office is important for the office occupants.

Although spatial relationship beyond the office is important, it was also important for the office occupants to maintain their privacy. They expressed concerns about maintaining privacy. They claimed that the more privacy they demand, the less their sensory reach decreases. Few examples were closing doors would visually shut you out
from outside the office leaving you unaware of what is going on the other side. One claimed that too much privacy would leave them disconnected from other spaces; however, one also said that awareness of space was not the concern, but privacy was.

All in all, the subjects expressed their difficulty in maintaining privacy while being aware of their office surroundings. Comparing to hearing office occupants, they can hear what is going on outside of their offices. During the interview, the interviewees were asked what their definitions of the concept of privacy were. Many of them were able to answer it in confidence. They all shared the similar definitions of the concept of privacy where they have access or control of the space or information and control or determine who has access into this space or information. Unfortunately, when it comes to design, they were not able to confidently design what privacy was, just as how they were able to define what privacy was.
Chapter 5 Conclusion

As noted in the Introduction, the concept of DeafSpace resulted from the 3-year DeafSpace Project that contributed to the DSDG. Its was to focus on how to design an environment that responds to the Deaf experience in space, sensory reach, mobility, light, color, and acoustics. This concept has not been formalized in an architectural sense and is not new. Historically, Deaf space has always been around since Deaf schools and clubs. Deaf people often temporarily occupied spaces designed by hearing people. Deaf people responded to environments and based on their sensory experience.

As indicated, this research focused primarily on sensory reach and privacy. It ties to common art and literature about doors and windows. Time and time again, doors were visual barriers whereas windows were visual opportunities. The research shows that the Deaf office occupants adapted to the use of their office space, which was designed by hearing people, to maintain their privacy in the workspace through doors.

Privacy Defined, but not Designed

When the interviewees were asked about the concept of privacy, they actually paused and thought how the concept of privacy can be defined. They were able to define it in confidence but not design the concept of privacy. It appears that the concept of privacy was easy to define but not design it based on their experience as Deaf individuals. Recall, Witold Rybcznski wrote in Home: A Short History of an Idea that the privacy was unknown in medieval homes during the Middle Ages. Also, Japan lacked an indigenous word on the concept of privacy and had adopted it from English. In the book A Fair Chance in the Race of Life, Ben Bahan and Hansel Bauman suggested that Deaf culture is

141 Rybcznski 1987, 15, 18.
a collectivist culture. They also suggested that Deaf architecture would appeal to their senses through openness and transparency. This is to suggest that Deaf culture is so collective that privacy may not be fully understood or conscious of. Often, when it comes to designing something to suit the experience of Deaf people, openness and transparency is drilled into the picture. One example, the windows on office doors in the Sorenson Language and Communication Center shows to have a design failure because now the majority of office occupants – Deaf and hearing – covered their doors somehow.

One of the interviewees was involved with design process of the SLCC and wanted to add glass on the doors so Deaf office occupants could see outside the office such as people passing by; unfortunately, it turned out to be distracting every time someone passes by and did not have a sense of privacy. As a result, many office occupants ended up covering their doors to minimize distraction and have privacy.

**Privacy in DeafSpace Defined**

As we have seen, the general concept of privacy does not appear to fit in DeafSpace. Privacy means to be not known or sensed by others or in public; however, this does not necessarily mean privacy does not exist in DeafSpace. In theory, privacy exists when one person know there is another person nearby. When the person is aware of another person’s presence, then privacy can be determined. As mentioned, privacy is the space or information controlled and determined how much can be known publicly. Suppose John can see Jane but Jane cannot see John, then John has control of his private space because he can determine what Jane can or cannot see. On the other hand, if John

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and Jane can see each other, then there is no privacy in this space because neither have control of the space they are in.

During the interview, subjects mentioned how privacy is maintained in the office from people outside the office. When maintaining privacy, being able to have visual control was important. Subject I mentioned how Model #2 allows more control than the other models. She described how Model #2 “has more control because you can see the person outside compared to the other models where they can see you from outside.” Subject E had a similar comment; “I’d rather see the person first than that person to see me first.” Furthermore, the data showed that Subject A and Subject I are able to see someone approaching their offices and this forewarning gives them awareness of their space (See Figure 4.44, where Subject A added a mirrors to extend his sensory reach and Subject I can see someone approaching as soon the person approaches.). In a way, their office designs confirmed Subject I and Subject E’s comments about having control and seeing the other person first.

Besides maintaining privacy in the office, there is also a similar principle on how privacy is maintained in households. Subject A explained that he has a family computer at home where the monitor is openly visible. This way, Subject A could monitor what his kid, whom is Deaf, is doing on the computer when in the same room. Whenever his kid had something private on the computer and did not want Subject A to know, his kid would turn the monitor out of Subject A’s sight. Here, his kid could see the monitor and Subject A, but Subject A cannot see what his kid is doing on the computer. What

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143 Interview, 2012.
144 Ibid., 2012.
145 Ibid., 2012.
Subject A’s kid follows the similar principle of how privacy is maintained in DeafSpace, where he has control of how much access his monitor can be visibly known to others or not.

In other words, privacy in DeafSpace means where one can see the other but not vice versa. Subject E mentioned that he would rather have his office seated in a position where he would see people outside of his office first before they can see him. This way he could control his space better. Similarly, one of Subject A’s kids would turn the family computer’s monitor away from Subject A’s sight. Here, Subject A’s kid could see the monitor and Subject A, but Subject A cannot see what his kid sees on the monitor.

Recall, Bahan explained the value of eyes in Deaf culture and that Deaf people live in a heightened visual sensory world. While realizing this definition is also the same in hearing space, this definition of privacy is specific in the concept of DeafSpace. This is an important concept to be understood because Deaf people should be aware of their surroundings and should have control of the space they occupy. Now, let us analyze the applications of privacy in DeafSpace.

**An Analysis on the Applications of Privacy in DeafSpace**

With the concepts of privacy in DeafSpace now defined, we will analyze where this concept could be applied to: office spaces, workspaces, or classrooms. Office spaces will focus on individual privacy while workspaces and classrooms will focus on collective privacy. Individual and collective privacy will be discussed after the analyses on the three spaces. Since the interviews for this research took place in the office, the discussions on the applications of privacy in DeafSpace in the homes will be set aside.
Office Spaces
With attention to office spaces, they are typically spaces used to do some work. For this reason, I will focus on Deaf individual office occupants. Recall, sensory connection is important in the concept of DeafSpace and that Deaf people live in a heightened visual sensory world. In this case, Deaf office occupants are likely to at least eye contact with someone who at least passes by. Occupants may feel interrupted or startled when they see someone simply greets and passes the office while focusing on some important task or confidential work. So, privacy here needs to be considered to give the Deaf office occupant the ability to control the space they are in without having the feeling of being interrupted or startled whenever someone passes by. This way, it would allow the Deaf office occupant a sense of security and control of the office space they occupy.

DSDG has a section on Transparency & Privacy and suggests designs that control the range of privacy and visual access on doors. It showed three doors with different glass sizes. The first one shows the door with a full glass that is fully accessible. The second one shows half glass, which is less accessible than the first one. The third and last is in a rectangular shape and shows less access. The degree of transparency is also considered to control the degree of privacy and how much visual access is allowed. According to my data, doors with transparent glass are least favorable because the majority of the participating interviewees covered their glass with translucent materials that allow lighting and shadow through.

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146 Bauman 2010, 48.
**Workspaces**
With office spaces in mind, they focus on individual spaces. Now, I discuss workspaces as shared spaces at work such as meeting rooms, conference rooms, or collaboration rooms. Clearly, this is different from office space because this workspace is a collective space. Since DSDG designs these types of spaces as gathering spaces to ensure people can see each other from multiple vantage points, either from within the room or outside the room, it is a different kind of privacy in DeafSpace compared to privacy in office spaces. Suppose there are projects that deal with confidential information, then privacy comes into effect here. Collective space needs to be ensured that there is collective control so that way information is not to be seen outside. Again, connection between each other is important in the concept of DeafSpace. So, it is necessary for people outside to know that there are people inside the workspaces, and vice versa, but cannot know – or cannot see – what they are deliberating about.

**Classrooms**
As the DSDG suggests, classrooms are designed with seating arrangements in horseshoe-shaped manner that give equal visual access for occupants with visual communication. Comparing to workspaces, privacy is controlled in a collective space from another space. Here, individual privacy is necessary to consider in the same collective space. There are factors to consider when people converse through visual communication while in the same room although the DSDG’s classroom designs has visual access and openness in the same room.

**Tensions of Individual and Collective Privacy in DeafSpace**
These three spaces – office spaces, workspaces, and classrooms – seem to suggest tensions of privacy in DeafSpace while maintaining connection through sensory reach.
As indicated, there are individual and collective privacy depending on the spaces occupied. Recall, the concept of collective privacy was briefly mentioned Chapter 2. Collective privacy is privacy that is controlled as a group, not as individuals. On the other hand, individual privacy is controlled the individual. With both types of privacy, there may be tensions of privacy within DeafSpace. For example, let’s look at a simple situation mentioned earlier about Subject A’s kid turning the monitor away from Subject A so he cannot see what his kid is looking at on the monitor. This type of tension implies that Subject A knows his kid is looking at something private but cannot see or know what he is looking at. This here is an example of individual privacy. Applying this principle of individual privacy to collective privacy would be in collective spaces such workspaces. For example, a student may anxiously wait outside of the meeting room where a group of professors are deliberating about whether to pass or fail the student. In this case, the student knows that the professors are discussing something private but does not know what they are discussing about. Collective privacy within a collective space is another form of tension especially in a classroom design suggested by DSDG because people in the same classroom may see that two people are having a private conversation through visual communication.

As indicated, the tension of privacy in DeafSpace that arises here is knowing, or seeing, that individuals or groups have control of their privacy space while in the same shared space. So privacy in DeafSpace is not only having control of the space, but also having controls other people’s sensory reach depending on how much privacy is needed.
Methodology Revisited

Layouts and Constraints
The interviews took place in each of the subjects’ own offices because most of the office size, layout, and design had similar constraints such as the desks, doors, chairs, videophones, computers, office space, and pedestrian flow. So data comparison and analyses were conveniently easier to control; however, I felt these constraints were actually constraints as barrier constraints to my data because this space is a place where the subjects actually work at and is the space they have adapted to, not modified. As I mentioned earlier, subjects were able to define the concept of privacy but most of them were unsure how to design privacy. So, I feel that the subjects were already adapted to and used to the space where the interview took place. As a result, I was not able to extract the natural and expressed designs of privacy from the subjects.

My suggestion for improvements for future interviews, they should take place in mock up offices with completely movable objects and walls to enable the subjects’ freedom to redesign the office space in any way they with rather than being mentally constrained in an actual space. The subjects have reacted as if objects in their offices are fixed because they already adapted to it. The mock up office will mentally free themselves without any constraints. With this approach, it should show optimal results and get the most out of the subjects’ natural designs of privacy in DeafSpace rather than showing them the video simulation models.

Deaf Homeowners and Deaf Office Occupants
While looking through the methodology in Matthew Malzkuhn’s *Home Customization: Understanding the Deaf Ways of Being*, I see that the interviews took place on site at the Deaf homeowners’ homes just as my interview took place on site at
the Deaf office occupants’ offices, but I realized that the conditions between home spaces and office spaces were different. Deaf homeowners owned the spaces at home, but Deaf office occupants did not own the space at the offices. Since they Deaf homeowners actually owned the space, they are empowered to modify the space as they saw fit. Malzkuhn discussed the importance of ownership and that it enabled “deaf people to carry on with their vision and desire for change.”\textsuperscript{147} So, I came to conclusion that the Deaf office occupants in my interview did not own the office spaces and the office spaces forces the Deaf office occupants to adapt to their space. Also, it seems that most of the Deaf office occupants became mentally constrained to the space they adapted in. This is not to say that none of the participating subjects had absolutely no idea how to redesign the office space. In fact, three of the subjects mentioned customizing their office design such as changing the shape of the desk that is designed to have them seated facing the door with the computers and videophone within the vision field while being backed up against the wall. As discussed, my solution was to free their constrained mentality of the office space by conducting interviews in mock up offices. This way, it would give the Deaf office occupants a sense of ownership in the mock up offices to empower them to redesign and change the office design any way they want.

**Recommended Designs**

During the interviews, I noticed some existing designs that subjects expressed their liking to and suggested design ideas how design spaces that fit the concept of DeafSpace.

\textsuperscript{147} Malzkuhn 2009, 109.
**Recommendations**

Recommendations resulted from the subjects’ comments on existing ideas and suggestions of designs for their workplaces. Office spaces should be built around collaboration spaces, that way the office occupants can have a sense of connection and this collective space has views from multiple vantage points. At the same time, people in the collective space are aware of the occupants in the office space. Subject A suggested the idea to have the space built similar to Massachusetts Institute of Technology’s (MIT’s) Media Lab. [Insert image]. Additionally, Subject C liked the design of her previous office at the Hall Memorial Building (HMB) at Gallaudet University because students had to pass by the faculty’s office before entering, what she called it, the student area which is the collective space, because she can see who entered or left the student area. The designs of MIT’s Media Lab and HMB promote connection between the office spaces and the collective spaces, which is what the DSDG also suggested. This type of design leads to sociopetal spaces. The current office design is a sociofugal space. Subject E explained the design as “cell blocks like prison” because it discourages interaction from each other and encourage isolation from each other. Sociopetal spaces are usually designed to promote connection and be able to see each other visually.

With the designs of promoting connection between office spaces and collective spaces, the office spaces must have privacy to enable the Deaf office occupants to have privacy and control of their office spaces. According to my data, the subjects who chose to have their doors covered in full had translucent materials or sheets. Those had translucent material claimed that they could see someone outside their doors by shadow
figures. Translucent material or sheet “transmits illumination but not information.”\(^{148}\) The concept of privacy in DeafSpace means to have control of the space. So, with this recommended design, the translucent material or sheet gives the Deaf office occupant a choice whether to let the person outside the office into the space or not.

Additionally, the customization of desks and their position in the offices should also be considered. The desks should be horseshoe-shaped and have the seat that position the occupant facing the door. The seating position should also seated back against the wall or corner to secure the space and the vision field. Again, Deaf people are visual people and this basic design is confirms the visually centered space and designs the concept of privacy in DeafSpace.

**Recommended Designs of Privacy in DeafSpace and UD**

These recommended designs of Privacy in DeafSpace still fit into the principles of UD, as discussed in the introduction chapter. The introduction chapter discussed how the concepts of DeafSpace fit with the principles of UD. Here, the recommended designs of privacy in DeafSpace still fits the four principles of UD, again – equitable use, flexibility in use, perceptible information, size and space for approach and use. Deaf office occupants and hearing office occupant can use the recommended designs in the same way but with different sensory perceptions in the same space.

For Future Research

**Design**

Edward Hall, an American anthropologist, stated that “modern man is forever barred from the full experience of the many sensory worlds…” Here, Hall thought it was important to study art and architecture together. This way this will incorporate the sensory experience of how humans interact with the environment then link this experience into architecture. Once art and architecture are linked, then people would be able to connect and relate with the architecture around them since it reflects their sensory experience. An example of designs in Deaf architecture is designs with the concept of maluma, a notion that acted as a benchmark for Deaf architecture designs. Maluma and takete are the two words invented by psychologist, Wolfgang Köhler. These words illustrate spatial associations. “Maluma evokes images of soft, curvilinear, maternal forms, takete conjures sharp, angular shapes. Surveys indicate that Deaf overwhelmingly opt for design elements reflecting maluma-type patterns.” So, Deaf people need to have their environment designed relevant to their sensory experience. Again, in this paper, Deaf people are assumed to be visual people just as George Veditz claimed that Deaf people are “people of the eye.”

When it comes to designing buildings, there are good designs and bad designs. Good design results when “corporations care about their designs and when designers care about their users.” Bad design occurs from “ignorance, poor socioeconomic resources,或其他人导致的失敗性問題。
and skewed professional priorities.” For example, people who were ignorant about Deaf culture built most of the buildings at Gallaudet University. For centuries, the notion of the Deaf experience were asserted negatively and believed that Deaf people were “locked in silence.” This suggests that the people who designed the buildings at Gallaudet did not have an empirical understanding of the Deaf ways of being. They based their assumptions on their ignorance of Deaf people.

**Lessons from the SLCC Designs**

When the SLCC designs were used in practice, some shortcomings became apparent to its Deaf users. A lot of people referred to this building as the ultimate model of DeafSpace; however, Deaf office occupants have shown that their office spaces are not of DeafSpace. The only part of the SLCC that is reflects DeafSpace is the atrium and the classrooms on the first floor. It could be said that this part of the SLCC is an overdesign because overdesign makes a symbolic design ubiquitous. Overdesign is a design that is excessively complicated or too specific with unnecessary structures. The SLCC’s atrium is commonly displayed at DeafSpace while it overlooks other parts of the SLCC like the offices.

This implies the office spaces need to be redesigned. “Design…can effectively redesign human experience to makes its audience more aware of their inner nature and personal alternatives.” The design should focus more from Deaf people themselves.

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153 Ibid, 47.
154 Prochnik 2010, 246.
155 Ibid., 247.
156 Grudin 2010, 25.
158 Grudin 2010, 89.
since they are the ones that originated and created Deaf spaces. “Good design may well
tell the truth, but truth itself is often drowned out by mass-market cannonry.”\textsuperscript{159}

In this case, the DeafSpace should design an environment that is “completely
responsive to and expressive of the unique physical, sensory, cognitive and cultural
aspects of Deaf experience.”\textsuperscript{160} Edward Hall explained that individuals constantly live in a
sensory world and “Space defines the language we use.”\textsuperscript{161} Since Deaf people’s primary
use of language at Gallaudet University is American Sign Language, then the space
should define the language used at Gallaudet University – ASL. “Designing a public
building is, in effect, conveying a public message”\textsuperscript{162} In other words, designing a space to
define ASL will send a message to the public that this space is designed by ASL users
and ASL exists because of Deaf people.

\textit{The Importance of Designing DeafSpace}

The reason why design is important is because it needs to have its functions.

Langdon Morris defined \textit{social design} “therefore refers to that aspect of architecture
which takes a priority the creation of environments for effective and positive human
interaction, and in the end asks the question: Can better buildings make for a better
quality of interaction? Social design extends design principles into areas like knowledge
management. Other researchers and consultants explore organizational designs,
educational design, research design, motivational design, and other professional

\textsuperscript{159} Ibid., 31.
\textsuperscript{160} Ibid., 15.
\textsuperscript{161} Hall 1990, 91.
\textsuperscript{162} Grudin 2010, 19.
ramifications of the subject, as well as more homespun specialties like vacation design, honeymoon design, and designer eggs.”\textsuperscript{163}

To design a social space for interaction, it needs to have a collaboration of other people to design this space together. For example, co-developers of Group Genius, DesignShop, and others, Matt Taylor and his wife, whose name was not disclosed, designed and redesigned their meeting places from the ground up. They created a whole new meaning in conferencing processes. Often, design was thought of as an individual discipline. The Taylors invented a design process for “people to be able to design together.”\textsuperscript{164}

When designing a space, there are factors that need to be considered and incorporated. “Corporations can create their own cultural environments by realizing that they are at once workplace and living-space, and that their values and their mission are manifested by their architecture, time-management, professional language, communications, work ethic, festivities, outreach, leadership, promotions and new hires. Conversely, corporations who ignore these factors create a cultural desert where no one is communicative, engaged or secure.”\textsuperscript{165} During the designing and development process, the guideline intends to play as a bridge between the Deaf and hearing world and both worlds need to be involved with the designing process.\textsuperscript{166} This will “illustrate the unique effectiveness, as well as the necessary limitations, of design principles in the shaping of human experience.”\textsuperscript{167} In essence, we need to find ways to strengthen the relationship

\textsuperscript{163} Ibid., 121-122.
\textsuperscript{164} Ibid., 122-123.
\textsuperscript{165} Ibid., 152.
\textsuperscript{166} Bauman 2010, 12.
\textsuperscript{167} Grudin 2010, 87.
between the designer and the users when designing DeafSpace. In the case of the SLCC, it is an overdesign because only the atrium, the open room, reflects the concept of DeafSpace.

Overall, we need reassess the basic form of Deaf ways of being to properly design DeafSpace. “Silence as a state of expectancy, a species of attention, is a key back into the garden of innocence.”\(^{168}\) Metaphorically, we need to go back to the essence of the Deaf ways of being and design their experience into something materialistic. "In the Findley book, she addressed four different concepts that were relevant to the development and recognition of groups who were historically oppressed. They engaged in building projects to establish their position on earth, whether it is on an island or in a city. Building for *Future, Visibility, Memory and Presence* were the examples that Findley provided. She used examples of how different groups took charge of their fate and created environments where they could use to make a statement."\(^{169}\) As we know, Deaf people have been historically oppressed. To express Deaf people’s position on earth is to build projects for the future of the Deaf communities and their presence here. Designing a Deaf Space will not necessarily be limited to the Deaf but also to the non-Deaf. When designing with hearing architects, deaf people should consider their designs if they are suited to their well-being because a “good design tells the truth.”\(^{170}\) Grudin said, “If good design tells the truth, it seems fair to ask what the truth is.”\(^{171}\)

\(^{168}\) Ibid., 294.
\(^{169}\) Malzkuhn 2009, 18.
\(^{170}\) Grudin 2010, 40.
\(^{171}\) Ibid., 22.
Individual Privacy vs. Collective Privacy

These two concepts have not been further analyzed in detail although been briefly mentioned in this paper such as individual privacy for Deaf office occupants and collective privacy from dormitories or collective spaces. This paper analyzed the general concept of privacy in DeafSpace, but did not break it down to individual privacy and collective privacy in DeafSpace. On a quick analysis, the definition of Privacy in DeafSpace can apply to individual privacy in DeafSpace. It can also apply to collective privacy in DeafSpace but with more layers such as shared sensory reach between individuals in the collective space. Potential future research could be studying how individuals set up or form a collective private space and what shared sensory reaches are used.

Details on Demographics For Future Research

As we see here, the subjects recorded focused mainly on the fact that they must be Deaf and hold and office in the SLCC. Other information such as: race, age, type of work in office, and rank/position were not analyzed because results of the data has not shown an clear relation and effects between subjects such as race and age. Subjects’ rank/positions did have some implications particularly on their office locations, but no strong connections were found in this. With a bigger pool of subjects, then demographics may be taken into consideration to make stronger connections.

Conclusion

Now, let us look back into the concept of Deaf Space and how it was commonly looked at as open space, no visual barriers, and a collective space that promotes visual connection between others; yet, the concept of privacy is often overlooked in Deaf Space. The concept of privacy is an important aspect in Deaf Space because once this concept is
understood, then Deaf people will be able to reclaim and have control of the space they occupied. Based on the data and interview, privacy is maintained by having visual control of the space occupied. The dilemma of maintaining privacy in Deaf Space is trying to find the balance how much the subjects can see or not see. When subjects want complete privacy, they cut themselves off from the outside and results in isolating themselves inside. On the other hand, when subjects want to see outside, they would have to sacrifice their degree of privacy. Again, Deaf Space is often described as a collective space. So, having complete privacy would make this less of a collective space when it results in isolation from each other. The concept of privacy in Deaf Space is not something that comes up in everyday discourse. According to this paper, the concept of privacy in Deaf Space focused on the subjects in their office space. With the current designs of the office, we know that hearing people can hear someone approaching. With the same design, on the other hand, Deaf people cannot hear someone approaching. Hence, the current designs limit the subjects’ sensory experience within the office space they occupy.

The solutions to these problems for the subjects were using mirrors to extend their sensory reach and redesign their office layout, desks, and space. Mirrors are used to stretch the subjects’ sensory reach, either to see behind them or to see someone approaching their offices. Redesigning the offices include changing their offices similar to Models 1, 2, or 3 (see Figures 4.47, 4.48, 4.49, and 4.50), modifying desk shapes and location to keep the door within the vision fields, and building offices around a public or collaboration space. The purpose of these solutions was to increase sensory awareness outside of their offices while being able to maintain degrees of privacy in the offices.
In light of these solutions, subjects wanted visual connections with the space outside their offices but showed various responses of designs of privacy. The subjects were able to define the concept of privacy, but not design the concept of privacy. This is not to say that privacy in Deaf Space does not exist. Improvements in my research methods could be modified and improved to get optimal results from the data. Often, the subjects became accustomed to the office design they were and were not freely able to express their design ideas as opposed to Deaf homeowners who customized their homes. While being aware that the difference between home and offices is ownership of the space, I realize that Deaf homeowners modify their homes because they own it whereas Deaf office occupants adapt to the space because they do not own it. One idea to empower the subjects to modify their office space is to have the subjects in mock-up office where everything is completely portable, moveable, and transformable with existing designs of desks, chairs, doors, walls, and more. More results can be pulled out of this rather than the interview alone.

From here we can analyze how their designs came to then bring this study further into the field of architecture and contribute to improve the DeafSpace Design Guidelines. This could go to improve the designs of privacy that respond to Deaf people’s sensory experience. It could contribute to new designs according to the principles of Universal Design so it can create an environment usable for everyone. Since there is a conservative estimate of deaf people in the United States of America and Canada, DSDG can take a proactively improve their designs such as offices, classrooms, or other workplaces for effective communication in signed languages between coworkers, colleagues, or classmates.
As we see, this study can be pursued beyond architecture such as policymaking and interdisciplinary approaches in the field of architecture. Studies on concept privacy in Deaf space can be tied to UD principles and theories into solutions to conflicts between different sensory abilities especially between Deaf and non-Deaf people.
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Appendix

Figure 5.1 Bank of Wilmar, Minnesota 1901
Figure 5.2 First Floor Front Doors of the Bank of Wilmar
Figure 5.3 Second Floor Doors of the Bank of Wilmar
Figure 5.4 Front Elevation of the One-Story Bank of Kenyon, Minnesota 1902
Figure 5.5 Close-up of the Front Elevation Corner Entrance of the One-Story Bank of Kenyon, Minnesota 1902
Figure 5.6 Side Elevation of the One-Story Bank of Kenyon, Minnesota 1902
Figure 5.7 Close-up of Side Elevation of the One-Story Bank of Kenyon 1902
Figure 5.8 Front Elevation of the Two-Story Bank of Kenyon, Minnesota 1902
Figure 5.9 Close-up of the Front Elevation of the Two-Story Bank of Kenyon, Minnesota 1902
Figure 5.10 Rear Elevation of the Two-Story Bank of Kenyon, Minnesota 1902
Figure 5.11 Close-up of the Rear Elevation of the Two-Story Bank of Kenyon, Minnesota 1902
Figure 5.12 Front Elevation of Private Residence in Faribault, Minnesota 1896
Figure 5.13 Close-up of Front Elevation of Private Residence in Faribault, Minnesota 1896
Figure 5.14 Rear Elevation of Private Residence in Faribault, Minnesota 1896
Figure 5.15 Close-up of Rear Elevation of Private Residence in Faribault, Minnesota 1896
Figure 5.16 Front Elevation of Private Residence in Faribault, Minnesota 1895
Figure 5.17 Close-up of Front Elevation of Private Residence in Faribault, Minnesota 1895
Figure 5.18 Rear Elevation of Private Residence in Faribault, Minnesota 1895
Figure 5.19 Close-up of Rear Elevation of Private Residence in Faribault, Minnesota 1895
Figure 5.20 Floor Plan of State Bank of Chandler in Chandler, Minnesota (n.d.)
Figure 5.21 Front Elevation of State Bank of Chandler in Chandler, Minnesota (n.d.)
Figure 5.22 Close-up of Front Elevation of State Bank of Chandler in Chandler, Minnesota (n.d.)
Figure 5.23 Rear Elevation of State Bank of Chandler in Chandler, Minnesota (n.d.)
Thesis Interview Questions:

**Basic Bios:**
1. Name:
2. Current Position at Gallaudet:
   a. How long have you held this position?
      i. Less than 5 years
      ii. 5-10 years
      iii. 10+ years
3. Tenured or Adjunct/Temporary?
   a. If tenured, how long have you been tenured?
      i. Less than 5 years
      ii. 5-10 years
      iii. 10+ years
   b. If adjunct/temporary, how long will you or are you expected work here?
4. Previous Position(s), if any:
5. How long have you been in this office?

**Office**
Office Layout:
1. Desk
2. Computer
3. Seating
4. Door
5. Hallway Setting

Office Occupant:
Preferred seating position/direction when working alone in your office:
   a. Facing the office door
      i. Why?
   b. Facing the computer
      i. Why?

About the office:
1. How long have you been in this office?
2. As an occupant of this office, how do you feel about the space in this office? How so?
   a. Crowded
   b. Too Spacious
   c. Content

**Doors**
Door Cover and detail
- Full
- Partial
- Selective
- None
Before proceeding, I have question to start off with - how would you define privacy?

Doors - Fully covered doors:
1. What is your reason for having your door fully covered?
2. Suppose you are in your office and are available, what do you do with the door? And why?
   a. Have the door closed
      i. Situation: How would you know if someone is waiting outside of the office? And what would you do if that person has been waiting for a while?
   b. Have the door partially open
   c. Have the door open
   d. Other
      i. Please explain:
3. Suppose you are busy in your office but available (such as during office hours), how would you let people outside your office know? And why? (For example, you have a certain work to focus on or a private or personal issue/situation to deal with.)
   a. Have door closed
      i. Situation: How would you know if someone is waiting outside of the office? And what would you do if that person has been waiting for a while?
   b. Have door partially closed
   c. Have door open
   d. Other
      i. Please explain:
4. Suppose you are in your office but unavailable, what would you do? And why? (In other words, “hide” from people outside the office.)
   a. Have door closed
      i. Situation: How would you know if someone is waiting outside of the office? And what would you do if that person has been waiting for a while?
   b. Have door partially closed
   c. Have door open
   d. Other
      i. Please explain:
5. Following up on Q4, would you leave the light on or of?
   a. Why or why not?
Before proceeding, I have question to start off with - how would you define privacy?

Doors - “Half” covered doors:
1. What is your reason for having your door “half” covered?
   a. Why did you choose the bottom-half to be visible? (No eye contact from outside?)
   b. Why did you choose the upper-half to be visible? (Eye contact from outside?)
2. Suppose you are in your office and are available, what do you do with the door? And why?
   a. Have the door closed
      i. Situation: How would you know if someone is waiting outside of the office? And what would you do if that person has been waiting for a while?
   b. Have the door partially open
   c. Have the door open
   d. Other
      i. Please explain:
3. Suppose you are busy in your office but available (such as during office hours), how would you let people outside your office know? And why? (For example, you have a certain work to focus on or a private or personal issue/situation to deal with.)
   a. Have door closed
      i. Situation: How would you know if someone is waiting outside of the office? And what would you do if that person has been waiting for a while?
   b. Have door partially closed
   c. Have door open
   d. Other
      i. Please explain:
4. Suppose you are in your office but unavailable, what would you do? And why? (In other words, “hide” from people outside the office.)
   a. Have door closed
      i. Situation: How would you know if someone is waiting outside of the office? And what would you do if that person has been waiting for a while?
   b. Have door partially closed
   c. Have door open
   d. Other
      i. Please explain:
5. Following up on Q4, would you leave the light on or of?
   a. Why or why not?
Before proceeding, I have question to start off with - how would you define privacy?

Doors - Nothing covered:
1. Any reason why you did not cover your door at all?
2. Suppose you are in your office and are available, what do you do with the door? And why?
   a. Have the door closed
      i. Situation: How would you know if someone is waiting outside of the office? And what would you do if that person has been waiting for a while?
   b. Have the door partially open
c. Have the door open
d. Other
   i. Please explain:
3. Suppose you are busy in your office but available (such as during office hours), how would you let people outside your office know? And why? (For example, you have a certain work to focus on or a private or personal issue/situation to deal with.)
   a. Have door closed
      i. Situation: How would you know if someone is waiting outside of the office? And what would you do if that person has been waiting for a while?
   b. Have door partially closed
c. Have door open
d. Other
   i. Please explain:
4. Suppose you are in your office but unavailable, what would you do? And why? (In other words, “hide” from people outside the office.)
   a. Have door closed
      i. Situation: How would you know if someone is waiting outside of the office? And what would you do if that person has been waiting for a while?
   b. Have door partially closed
c. Have door open
d. Other
   i. Please explain:
5. Following up on Q4, would you leave the light on or of?
   a. Why or why not?
Before proceeding, I have question to start off with - how would you define privacy?

Doors - Selectively covered:
1. What is your reason for having your door selectively covered?
2. Suppose you are in your office and are available, what do you do with the door? And why?
   a. Have the door closed
      i. Situation: How would you know if someone is waiting outside of the office? And what would you do if that person has been waiting for a while?
   b. Have the door partially open
   c. Have the door open
   d. Other
      i. Please explain:
3. Suppose you are busy in your office but available (such as during office hours), how would you let people outside your office know? And why? (For example, you have a certain work to focus on or a private or personal issue/situation to deal with.)
   a. Have door closed
      i. Situation: How would you know if someone is waiting outside of the office? And what would you do if that person has been waiting for a while?
   b. Have door partially closed
   c. Have door open
   d. Other
      i. Please explain:
4. Suppose you are in your office but unavailable, what would you do? And why? (In other words, “hide” from people outside the office.)
   a. Have door closed
      i. Situation: How would you know if someone is waiting outside of the office? And what would you do if that person has been waiting for a while?
   b. Have door partially closed
   c. Have door open
   d. Other
      i. Please explain:
5. Following up on Q4, would you leave the light on or of?
   a. Why or why not?
Relationship with people around your office:

1. When checking your colleague’s office, how do you check if your colleague is:
   a. Available?
   b. Unavailable?

2. Following up on Q1, how did you determine that? Is that how your colleague is or you just “know” it?

3. When you know your colleague is available, you:
   a. Wait at the door and wait for your colleague’s “permission” to go in.
   b. Flash your colleague’s office then wait for your colleague’s “permission” to go in.
   c. Flash your colleague’s office then go in.
   d. Just go in.
   e. Other:

4. Now let’s switch roles: when someone is at your door, you expect that person to:
   a. Wait by the door till you say, “come in.”
   b. Flash your office your office then wait for you to say, “come in.”
   c. Flash your office then come in.
   d. Just come in.
   e. Other:

5. When you grant access for someone to come in, do you imply:
   a. “You may enter the room.”?
      i. Why or why not?
   b. “You may enter and sit in front of me.”?
      i. Why or why not?
   c. “You may enter and sit beside me.”?
      i. Why or why not?
Modifications
1. With the current layout of the office the building, let’s take a look around your office: if you could, where would you put a mirror and why or why not?
2. What is your typical reaction when students/colleagues/etc. walk by your office or show up at your door unexpectedly while you are busy with something that is private?
3. Comparing to hearing people, they can hear when someone is approaching. As a Deaf person, would you like some sort of signal that lets you know someone is approaching to your office (without the help of cameras, television and/or electronic sensors.)? If so, how?
4. Video simulation: Which design do you prefer and why?
5. Suppose money/red tape/authority approval was no object and everything could be done by the power of your fingertips, what do you wish you to change or improve your relationship from within the office and outside the office? (Recall how you defined privacy, now how would you design privacy? Door/Window/Walls/Mirror/etc.?)

Anything you’d like to add or discuss more about?