

# *Her Voice Guided Me*

*Carolyn Rodgers*

*Integrative Project / Written Thesis*

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**INTRODUCTION** As a graphic designer, I rely on my vision to create exclusively optical experiences. After exploring how typography impacts visually impaired users, I wondered how design could be more inclusive to that community. Over the last year, I partnered with a local school district's team of teacher consultants for the visually impaired to explore new solutions through design. However, the final form of my IP became something much more meaningful than a simple design project.

While observing the consultants, I met a high school student, India. She lost her sight at age four as a brain tumor intruded around her optic nerve. In scary and unfamiliar territory, India adapted to her condition with newfound bravery and learned she was part of a community. Today, India mentors young students and proudly shares her story to help the sighted understand her experiences.

*Her Voice Guided Me* reflects on how a designer and a visually impaired student helped each other see differently. Our partnership is expressed in two books: the first is a four part autobiography that tells the story of this inspiring visually impaired student, the second is a collection of my reflections of valuable perspectives I gained through this collaboration.

In 2010, the number of people visually impaired (VI) across the world was estimated to be 285 million.<sup>1</sup> In 2014, the number of elementary through high school students that were considered legally blind in the United States was over 60,000.<sup>2</sup> I believe with empathetic collaboration, designers can positively impact this community, and people like India can help change the world in ways designers could never imagine.

**CONTEXTUAL DISCUSSION** In addition to my personal experiences of working with teacher consultants, I have researched the history of braille, accessible education for the visually impaired, visionaries in the realm of visual disability activism, and the current resources available to the VI

#### INTRODUCTION

1. "10 Facts About Blindness and Visual Impairment," *World Health Organization*, August 2014. Accessed November 2015, <http://www.who.int/mediacentre/factsheets/fs282/en/>.

2. "Annual Report 2014: Distribution of Eligible Students Based on the Federal Quota Census of January 7, 2013 (Fiscal Year 2014)," *American Printing House for the Blind*. Accessed November 2015, <http://www.aph.org/federal-quota/distribution-2014/>.

community. The resources I discovered me lead to better understand VI, which affected how I incorporated general knowledge into my case study project. By exploring creative thinkers with disabilities and unique artists' books, I was able to reflect on how various medium address disability and empathetic partnerships.

Education Trends for Visually Impaired Students: In earlier times as such advancements in systems like braille developed, the demand for tactile materials in education and other areas of life increased. In 1858 American Printing House for the Blind (APH) was founded based on a demand for embossed books.<sup>1</sup> For over 158 years APH has continued to “promote independence of blind and visually impaired persons by providing specialized materials, products, and services needed for education and life”.<sup>1</sup> They have assisted in bettering the lives of visually impaired people throughout their history while continuing to speak for accessibility rights. Today, APH makes products divided into many categories that provide a broader selection of materials to people living with VI, including: Instructional Materials (software, core curriculum, accessible magazines, etc.) and Daily Living (audio equipment, electronics, games, organization and mobility, etc.).

Based on my experiences with the teacher consultants, these materials are helpful and allow the students to adapt their curriculum; however, they are not always fully effective. It was clear many problems have been addressed, but there are endless possibilities to designing better for VI education. By observing the VI students, I saw they enjoyed APH products, like creativity-boosting activity books, but were left disappointed after completing the limited sets of books APH creates, they desired more than what is made.

Luckily, within the past few decades strides have been made to bring art education and creative practice to VI students. The organization Art Education for the Blind (AEB) was created in 1987 after the founder saw her grandmother, an artist and lover of art, losing her sight and ability to experience the work she enjoyed.<sup>2</sup> AEB's 2003 book, *Art Beyond Sight: A Resource Guide to Art, Creativity, and Visual Impairment*, discusses theories surrounding learning and techniques of teaching VI students art education. It pushes to integrate art and creativity in the lives of VI people. Its contents discuss personal perspectives of the value of art education,

## CONTEXTUAL DISCUSSION

1. “The History of the American Printing House for the Blind: A Chronology,” *American Printing House for the Blind*. Accessed February 2016, <https://www.aph.org/museum/about/history/>.

2. Elisabeth Salzhauer Axel and Nina Sobol Levent, *Art Beyond Sight: A Resource Guide to Art, Creativity, and Visual Impairment* (New York: AFB Press, 2003).

theory on touch versus vision, and techniques used in classrooms.

Overall, *Art Beyond Sight* helped me understand VI and gave me context for the developing state of art education in VI communities. There are many techniques to teach students, but creative skills are difficult to teach VI students and often aren't promoted as they should.

Through observing teacher consultants, I learned impaired students are mostly taught to be like their sighted peers in public schools. They can be forced into systems that were designed for sighted students, which can lead them to feel inadequate or cause them to fall behind. This can be detrimental to their future education and career. I appreciate that organizations, like APH and AEB, try to encourage students to embrace their disability to discover what works for them.

Case Study: Some of the issues the teacher consultants discussed with me were not being able to quickly produce tactile graphics, struggling to help the children eat, working with confusing purchased tactile materials, and lacking adaptive learning materials. Each consultant had great, unique ideas that should be further developed by designers, but I wanted to take a more empathetic approach to my project and create work with one student. Overall, the school district truly allowed me to experience daily problems and joys of a preschool, first grade, and high school VI student. This research was most beneficial to my project and gave me the opportunity to collaborate with the oldest student, India.

India is currently in tenth grade and recently transferred out of public to private school to better adjust to the circumstances of her VI. Adapting to her unique circumstances, she learned to read both printed type and braille, but prefers the latter. She uses many tactile devices and a cane to improve mobility. To take in information quickly, she uses the VoiceOver feature of her phone. To learn about animals she checks out heavy volumes of braille books from the library. Despite her disability, she is a great daughter, student, and friend.

Like many other VI students, India struggled to fit in at public schools. She felt like there was "an image," as she explained, of what everyone wanted her to be. Now she has broken from the false expectations

of being “normal” in her private school setting so she can embrace her unique perspectives born from her impairment. Without relying on, and hardly using, her vision, India’s other senses are reinforced by their frequent exercise. For example, she remembers tactile details much more than something that might be spoken. She constantly surprises me with her intuition and caring personality. She has made me walk without sight while using her white cane and overall encouraged me think differently about many things, especially senses.

Creative Inspirations and Trends: Empathetic Design “draws upon people’s real-world experiences to address modern challenges”.<sup>3</sup> Within this discipline, users are given ultimate attention and consideration for their circumstances are brought as close to the designer as possible. For example, a designer would spend large amounts of time frequently with the user and their community, participating in their daily activities.<sup>4</sup> This approach allows designers to more completely understand who they are designing with, rather than for. Empathetic design gives more productive results to collaborations because designers can use their skills in combination with feelings and experiences from authentic interactions with their users.

One of the artists I reached out to, Sadashi Inuzuka, is an artist who explores mostly clay as a member of the VI community himself. Sadashi’s work provided an example of how someone who is VI can act creatively. While a professor at the U-M Stamps School of Art & Design, Sadashi taught community engagement courses, which inspired my community outreach. His book, *Beyond Sight: Many Ways of Seeing*, is a dynamic book designed in type and braille, tactile photos, and layered papers that documents works impaired people in the Ann Arbor VI community created within his course.<sup>5</sup> Stamps students worked with VI partners, that did not normally create art, to assist in making sculptures for this project. I’ve spoken to one of his past students about the class and she said it was a valuable, unique experience to help someone without much visual ability make something they envision.

Another impaired creator working in a visually dominated field is Chris Downey. As an architect, planner, and consultant who lost all sight in 2008, Downey uses his “unique perspective to facilitate greater clarity

3. Katja Battarbee, Jane Fulton Suri, and Suzanne Gibbs Howard, “Empathy on the Edge,” *IDEO*, January 2014. Accessed November 2015, [https://www.ideo.com/images/uploads/news/pdfs/Empathy\\_on\\_the\\_Edge.pdf](https://www.ideo.com/images/uploads/news/pdfs/Empathy_on_the_Edge.pdf).

4. Andrew Shea, *Designing for Social Change: Strategies for Community-Based Graphic Design*. *Strategies for Community-Based Graphic Design* (New York: Princeton Architectural Press, 2012).

5. Sadashi Inuzuka, “Beyond Sight: Many Ways of Seeing,” 2007-2008.

in the overall design and better integration of critical tools for the blind—such as way-finding and access to information”.<sup>6</sup> He does this “through more thorough consideration of tactility, touch, smell, temperature, sound, and new technologies” in his designs.<sup>6</sup> In his practice, he uses tactile floor plans to communicate his visual ideas to sighted partners while the partners’ work is embossed (and otherwise translated) to pass visual information on to his partners.

Downey influenced my thinking of roles the visually impaired can play in design. In my design processes, I use my vision with every step and often don’t consider how valuable other sensory experiences can be. Like Chris Downey, I agree designing for the visually impaired can “enhance the experience in all environments,” which is something I am explored with my student partnership.<sup>6</sup> Rather than relying only on expected visual experiences, designs will be richer and other people’s experiences will be understood.

In the realm of artists’ books, many artists have encouraged me to think in new ways within this medium. *Shedding Light* is an artist book by Heather Weston that acts as both a tactile object and reading material.<sup>7</sup> Initially, the book’s felt cover sleeve reveals its accordion fold with only braille words. Once the viewer flips the pages, they can read a small bi-fold paper key to translating braille that rests in a pocket on the sleeve. Upon only seeing braille, the reading process is quickly questioned, as the normal sighted reader cannot easily read braille. After further inspection, the felt sleeve is removable. On the opposite side of the long accordion sheet, mirrored text sits behind its braille counterpart. Again, reading is challenged by the confusing mirrored, prompting the reader to question the typical format of books. Its unusual cues (lack of standard typography and direction) give a new understanding of “book” and sheds light to different ways people experience reading.

Formally, I am also interested in the lack of color and visual cues of *Shedding Light*. Normally a person doesn’t see braille, they feel it. The artist didn’t print the braille but embossed it (other than the key meant for visual readers). It was great to experience braille outside of a text book or environmental signs. This was an excellent example of how a book can change a reader’s experience.

*500 Handmade Books* by Julie Chen showcases various artists’ books and influenced by similarly unique book

6. Chris Downey, “Chris Downey: Architecture for the Blind,” Accessed November 2015. [arch4blind.com](http://arch4blind.com).

7. Heather Weston, *Shedding Light* (London: Bookery, 2005).

formats. Like *Beyond Sight: Many Ways of Seeing* and *Shedding Light*, this catalogue of books explores many ways of communicating ideas through books. Most importantly, I saw examples of unique accordion folds, cut-outs, continuous lines of text, a combination of accordion and flag formats, transparent materials, collage of tactile materials, and unique packaging. These examples benefited my thinking of books as atypical, revealing how artists can help communities, like the visually impaired, think of objects differently.

There are many diverse methods of education for the impaired and book-making that have grown within the past decades, which makes me more confident that the intersection of art and design and impairment would do wonders for both communities.

**METHODOLOGY** *Typography Studies*: In the beginning of my project, I spent time exploring the possibilities of typography in relation to themes of censorship and activism. Type has a rich history but is commonly criticized for not evolving or offering exciting new possibilities in design. I wanted to explore questions like: How could a typeface teach someone to read? What if a typeface could allow someone to read faster? What if a typeface could help you feel closer to loved ones?

After taking many courses, such as typography and poster design, and after participating in community-based empathetic design projects; I was interested in exploring the two practices.

I began my IP studying letter forms. As I experimented independently, I realized my work would feel most fulfilling in the context of a partnership. When I would with others I feel my ideas are more valuable and I gather motivation I would not achieve through working independently. To gain new perspectives, I reached out to literacy programs but ultimately became most interested in the disabled community. Impaired communities were so different from me and could teach me a lot about my own work. I wondered, how could my perception of graphic design change if I collaborated with someone who was visually impaired?

*Designing for Low Vision Users*: I learned more about communities with low vision and cognitive disabilities that prevented them from reading, and illiteracy. Eventually, I became most interested

in learning more about low vision users in relation to graphic design. In an effort to comprehend the information I was learning, I painted with watercolor, acrylic, and spray paint. These helped me empathize with certain low vision impairments.



My watercolor, acrylic, spray paintings from the beginning of the year. Even before I met India, I was trying to imagine the experience of visual impairment.

While researching types of low vision, I began contacting local communities, like the Kellogg Eye Center, to get to know real people and real problems to work from. I decided I was more interested in working with kids who have grown up with a visual impairment as opposed to someone who may have developed VI as an adult.

Partnership with a Local School District: Based on my observations of the teacher consultants with their VI students, I thought it would be useful to design a tactile sketchbook with the first grade student. This would be a safe space that accommodates to tactile elements that would be preferred by his ability. In my observations I noticed a lack of creative materials specifically accommodating for VI students. In education, creativity is often undervalued; thus materials to help those activities encouraging creative practice are not prioritized. This unfortunate undermining of creative practice is heightened with VI students because their need for accommodation is also often undervalued. My design would allow a



more tactile experience of a sketchbook, where VI students could collect and creative tactile materials themselves, as opposed to being given a limited amount.



(L) The desk of the first-grade student I observed, with a Perkins Braille and magnifying computer monitor to zoom into the board.  
(R) Sketches of project ideas: an interactive poster series.

At this time I also thought creating posters to go alongside the book would raise the awareness to the VI community that I wanted. These posters could be tactile and not only portray important information about the community to clear confusion, but also give the audience a non-visual experience that would allow them to empathize with this community more.

This first-hand research was most beneficial to my project because it showed me the best way to design for someone is to be with them, get to know them. It also taught me I shouldn't design "for" someone but rather "with" them. More ownership is given to the user and community in this way while a more productive product is made. Empathetic design has the power to positively change the experiences of this community. This partnership with the school district also gave me the opportunity to collaborate with one of the older students the consultants work with, India.

Spending Time with My Co-creator: India truly brought life into my project. Upon meeting her, I thought I would adapt my previous tactile sketchbook idea to her needs and situation. After spending a couple months with her, I learned more about her, myself as a person and designer, and what I wanted to do with our time in collaboration. Avoiding pushing my previous thoughts on a new partnership, I spent time deciding a more appropriate project: a series of books I would make with India, a method we could

use to tell our and her story.

India constantly tells me about stories she's reading or from life. I realized telling the story of her blindness is very important to her. I thought it would be great if I helped her share her autobiography and helped her think about it in a more creative or visual way. These experiences together provoked me to create more tactilely and visually different than how I originally visualized VI in my paintings. I learned many opportunities and new experiences arise with an impairment that might seem bad at first, but are a chance to create in new ways.

I discovered the best use of our time together would be to share our experiences through two collaborative books.



An initial prototype of a book in a box, with large print and tactile features that are more interesting to the touch

**CREATIVE WORK** My final project took the form of two books: the first exploring India's autobiography with the perspectives of both India, and the second exploring my reflections of our partnership. These intend to reveal the dynamic of our partnership and what we've learned from each other.

I believe book arts was the best medium because they provide a unique perspective on the traditional book, which was important in working with more tactile details. Books inherently communicate a story, our story represents a trusting, intimate space that became valuable through our partnership.

Our first book: *My Blind Adventure*, April 2016; box: 8<sup>5</sup>/<sub>8</sub>" W x 2<sup>5</sup>/<sub>8</sub>" D x 9<sup>1</sup>/<sub>8</sub>" H, Book One: 8" W x " D x 5" H, Book Two: 8" W x " D x 6" H, Book Three: 8" W x " D x 7" H, Book Four: 8" W x " D x 8" H; paper, puffy

paint, book cloth, typeset in Avenir on heavyweight matte Epson paper and Perkins Brailler on drawing paper, drum leaf binding cased in a flip top drop spine box.

This series of four books reveals the value of collaboration with the visually impaired community while telling a unique story. One of the most rewarding aspects of making these books and box was hearing a personal story from an enthusiastic student. India wrote and illustrated the content for this work. She used her Brailler to type her story, then read it to me so I could type in print for our sighted audience. I collaborated with her on the materials (the soft cover sleeves and the cloth and puffy paint of the box) to reach a product that best represented her story. Although I crafted the final form of the books and box, India had great input on how her story would be expressed.

Throughout our work together, India told me she was happy she got the chance to express her creativity by working on our project. Similar to my original project idea of creating a tactile sketchbook to foster creativity, this final project accomplished that same goal. I believe I offered a small-scale effective solution to the problem I previously discovered, lack of creative outlets provided to VI students.

I received much positive feedback about how this story made readers think about sight and empathize in new ways, which was another one of my goals. Originally I thought I would accomplish this goal through posters; however, I effectively provoked thought in a more concise form.

Many viewers have encouraged me to get India's story published, or make the concept of the books interactive to encourage others with disabilities to share their stories. This was an idea I discovered at the end of my project, as I saw how therapeutic the process of writing and illustrating a personal story was for India. Among my positive feedback was an idea to create a template for other people with disabilities to reflect on their life, dreams, and experiences.

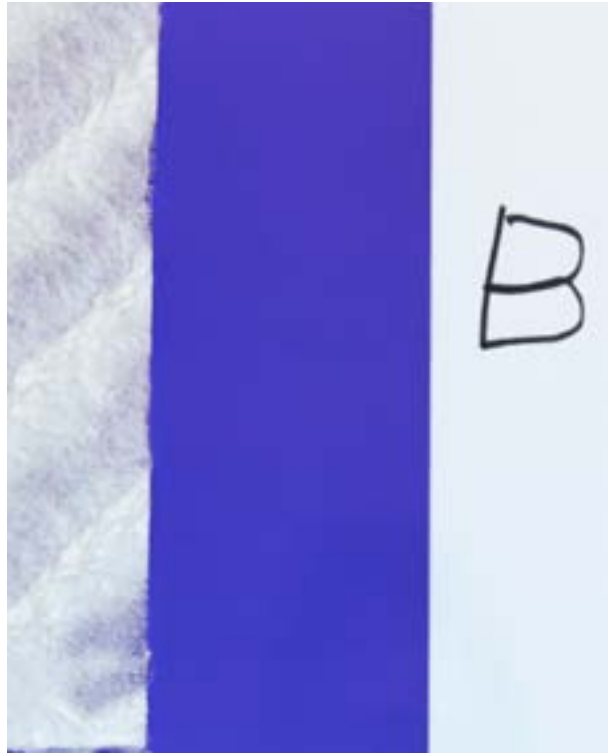
My book: *see clearly from a distance, colors*, April 2016; Box: 8<sup>15/16</sup>" W x 1<sup>15/16</sup>" D x 6<sup>15/16</sup>" H, Book: 8<sup>1/8</sup>" W x 1" D x 6<sup>1/8</sup>" H; paper, book cloth, typeset in ITC New Baskerville on matte Epson paper. Braille set with a Perkins Brailler. Concertina fold, cased in a clamshell box.



(T) A photograph of my final book and box: *see clearly from a distance, colors*. (B) A photograph of India's story in a box and series of four books: *My Blind Adventure*.



(T-L) A photograph of my book from the back of the pages, showing the debossed braille. (T-R) A photograph of my final book, a detail of the back cover. (B) A photograph of my final book and box with the accordion pages spread.



(T-L) A photograph of a India's four books in her box. (T-R) A detail photograph of the third book in India's series.  
(B) A photograph of the inside of India's box at the gallery.



By presenting an artistic interpretation of a case study, this book reveals the value of collaboration with the visually impaired as a designer experienced. It addresses issues of artistic collaboration, ability of sight, and the visual world within a very visual context.

By incorporating braille into my book, I feel the gap between the visual and non-visual worlds shrinks. The content in the beginning is more poetic as the type and braille ignore a grid, I created these spreads to express my attitudes about my experiences. The content in the back is more informative, I created these spreads to give the reader insight into my process working with India.

After creating important work with India, it was equally important for me to reflect on our experiences. The text in this book was written and designed by me with inserted images created by India and me. All together, the printed text, braille, accordion binding, and clamshell box attempted summarize our partnership. Now that it is complete, I believe this book is a jumping off point for myself and other designers to further collaborate with the VI community.

**CONCLUSION** *Her Voice Guided* was successful in reaching my goals to pursue a valuable partnership that offered unique perspectives, to create an inspiring body of work, and to work empathetically. The results of my project took the form of two boxes and two books, which was not anticipated, but was very appropriate.

Over the past five months, India and I meet about once a week, talking about our daily lives and creating in various ways. My views of graphic design have greatly changed since working with India. I now consider more tactile features in my work, am sure to make information easily accessible, and value building relationships with my collaborators whenever possible.

In the future I would love to have our stories published or marketed to inspire readers to think about sight and ability on a larger scale. Beyond sharing our stories, I believe creating a platform for people to tell their stories would allow others to feel as inspired and accomplished as India was after working on our project.

It would be a pleasure to continue creating with India and this community. I plan to keep in touch with the small team I have built for myself while working on this project. It was an honor learning from talented people who are trying to help the VI community. I plan to further develop empathetic collaborations to continue using my skills to make a positive impact.





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### Contextual Discussion

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