BLIND DESIGN WORKSHOP

2022/23

Project Title: Blind Design Workshop (BDW)

Month / Year Completed: Preparations for each workshop begin several months prior (at the end of the fall semester); the two workshops completed until now have taken place in the spring, from April 6th to April 10th (2022) and March 29th to April 2nd (2023).

Role of Nominee: Founder + Faculty Advisor / Program Leader

Collaborators + Funding Sources / Expenses: The workshop is a collaboration between the Virginia Tech School of Architecture (which hosts all activities at no cost) and the Virginia Department for the Blind and Vision Impaired, which generously funds the meals, lodging, and activity fees of vision-impaired participants; the provision of workshop materials and supplies; and the travel + speaking fees of professional mentors.

Student Compensation: 9 students (in 2022) and 12 students (in 2023) contributed to this project to earn 1 credit in a professional development course (ARCH 4994).

Recognitions: The workshop teams of 2022/23 would like to sincerely thank the Virginia Department for the Blind and Vision Impaired (DBVI), the Virginia Tech Creativity and Innovation District (CID), Chris Downey (Architecture for the Blind), Carmen Papalia, VMDO Architects, No So Studio, Michael Ermann, Kay Edge, Luis Borunda Monsivais, Joseph Cooley, and Ralisa Dawkins for supporting this project.
Each year, student leaders of the Blind Design Workshop are introduced to non-visual functionality, communication, and mobility in a training session led by the Virginia Department for the Blind and Vision Impaired (DBVI). The experience sheds light on relevant challenges which the students will need to address in the development of the workshop’s non-visual teaching program.

Training includes tutorials in a variety of tactile teaching methods and digital aids (above right) and mobility exercises with a cane in and around Cowgill Hall (Virginia Tech’s architecture building).
Exposure to spatial analysis and design thinking, together with tools for accessibly crafting and communicating design ideas are developed across a variety of multi-sensory learning activities, including a group listening session (of well-known spaces, like the cacophonous main terminal of New York’s Grand Central Station, and the somber central chamber of the Taj Mahal); interaction with 3D-printed models and embossed drawings of architectural precedents (like Shigeru Ban’s Paper House, shown above, left); and a sequence of drawing and design exercises using wax sticks on raised graph paper and assorted modeling materials (exploring the floor plan of a multi-purpose room, the depth and texture of a building facade, and the spatial sequence of an interior corridor). The workshop team’s reliance on tactile and auditory communication proves generally effective, but also involves unforeseen limitations: e.g. that each person needing to physically interact with a model or else carefully describe it affects a slower-paced group communication; and that some drawings are altogether impossible to read (namely tactile axonometric drawings and perspectives).

The pedagogy of each workshop is oriented around a single design prompt, challenging students to complete, then present a project for group critique on the last day. The prompt for BDW22 was a private dwelling meant to express the uniqueness of its inhabitant / designer. The design prompt for BDW23 was more abstract than the previous year; it asked students to design a space between two portals.
ACTIVITIES

The main design project is supplemented by guided tours of campus spaces, including the Creativity and Innovation District (CID) building where participants explored student-designed installations made of atypical building materials including bamboo and cork; introduction to emerging design technologies (like 3D printing, robotic fabrication, and CNC milling); and interaction with professional mentors, including Chris Downey, one of the few practicing blind architects in the world, and Canadian artist and disability activist Carmen Papalia, who led an activity in which participants wrote “I want” statements about the ways in which they would like the built environment to recognize / better-reflect / engage with their unique needs and perspectives.
The workshop culminates in a final presentation and group critique of individual proposals, with vision-impaired mentors, design professionals, and families in attendance. Students are encouraged to present their design process and refer to relevant precedents and/or personal spatial experiences which impacted their designs.

Maria (above right) designed a home with an elevated, rotating story (reminiscent of Richard Foster’s Round House in the Connecticut countryside (shown above), which can rotate 360 degrees, giving residents a panoramic view of the landscape from every room).

Robert designed a multi-floor metal cylinder (inspired by the modules of the international space station) which is meant to be submerged in the ocean and illuminated by bioluminescent jellyfish. His work recalled the futuristic ‘oceanscrapers’ of Belgian architect Vincent Callebaut (not shown), also illuminated by the ambient light of the shallow seacape.
In the spring of 2023, the Blind Design Workshop team organized its first exhibition in the lobby space of Cowgill Hall (Virginia Tech’s architecture building). In addition to displaying the outcomes of the workshop, the exhibition also presented the spatial mechanisms of non-visual navigation, including canes across history and reflective training wearables (top), patterned tactile floor strips (middle left), and tactile blankets and toys for teaching vision-impaired infants and toddlers (middle right).
Following the conclusion of each workshop, student organizers are asked to produce a written reflection about the impact of their experience on their perspectives about architectural education and practice. Below are a selection of excerpts:

The Blind Design Workshop was my first exposure to the blind and vision-impaired community and completely changed my perspective on design... One of the largest impacts of the workshop for me was the emotional response that design decisions can evoke. Explaining the possibilities of design and allowing them to imagine their dream home brought out exciting energy in the students that made the environment really positive. As a designer, recognizing how powerful inclusion is to a project is paramount. ...accessibility should be the minimum standard in practice, especially in public projects.*

– Rachel Dugdell (5th-year architecture student)

My experience through this workshop and the interaction that I had with the blind + vision-impaired community has drastically changed the way I think about space making. I think the architecture industry very much takes our vision for granted. Although we talk about acoustics and material throughout the design process, we orient our designs around vision-centric themes and aesthetics. Taking the time to really explore and learn about how blind and vision-impaired people experience the build environment helped highlight the other senses that make architecture a multi-sensory experience, not just a visual one.*

– Isaiah Ho (5th-year architecture student)

Moving on with my career, I plan to advocate for truer accessibility and spread the importance of designing for everyone. A good building shouldn’t just be visually appealing; but it should be a beautiful environment created to serve the inhabitants. It is a little disheartening to realize that accessible design isn’t the standard. I believe this should be changed and taught in school, that a project should be accessible and functional before it is made to be beautiful. Designing for the future should be all about designing for universal enjoyment and access.*

– Kelly Casey (5th-year architecture student)
Creating, leading, and being a part of this workshop has expanded my horizons and depth of understanding of architecture... I would like to bring inclusive design to the forefront of all my future projects. This could mean including and experimenting with ways to ensure those who are visually impaired can tell the different spaces apart, and using building materials that dampen or enhance sound depending on the type of space the user is in. I am especially interested in the integration of accessible pathways and circulation. I would like to bring them into the spotlight in a more forward way, to create a statement on how all people should be accommodated for and thought of. It is not the people who have to do things differently that are doing anything wrong, rather it is us who are able bodied who take for granted many things about design that are made for us, which allows us to ignore problems that we don’t have to face on a day to day basis.”

– Ashley Broyles (2nd-year architecture student)

This workshop was a fascinating opportunity for me to challenge, refine, and articulate my understanding of disability as it relates to architecture. As a hard-of-hearing person, I found myself relating to the students’ perspectives and comparing them to the challenges I experience as a student with a disability. For me, interacting with the blind community wasn’t a grandiose realization that other senses indeed matter. The workshop instead was an opportunity to reflect more broadly on how we can eliminate barriers for people with disabilities entering the profession of architecture, and how valuable the experiential knowledge of people with disabilities is to our understanding of design. There are reasons why disabled architects are statistically invisible in our field. Work needs to start happening now so that the blind community is given a fair chance to succeed. I hope that this workshop is what kickstarts it. It’s only the beginning!”

– Matthew Schrage (4th-year architecture student)
Following the conclusion of the 2023 Blind Design Workshop, the father of Braedon, a 15-year-old participant with CHARGE syndrome (affecting him with partial blindness and deafness) reaches out to Kathy Malone (of DBVI) and Dr. Gipe-Lazarou to share his thoughts about the impact of the workshop on his son.

During BDW23’s final reviews, Braedon presents his design process and final proposal for a space between two portals: located in a venue for temporary exhibitions between two alternative door exhibits, an ornately-adorned, covered walkway leads up to a monumental door frame which surrounds the inviting undulations of a mysterious surface.
2ND YEAR COMPETITION

BRIEF

Following BDW22, I was asked by leadership of the school to design the 2nd-year competition brief in a manner which might challenge students to engage with inclusive practices. In the spring of 2023, I presented the prompt, "design a nature observatory for the blind", to 120 students across 7 studios. The week-long project was hypothetically sited at the Burkeville Lodge for the Blind (a vacation spot in southwestern, VA).

2nd YEAR COMPETITION_2023

Design an observatory for the blind – an accessible, sheltered space which facilitates an immersive, non-visual experience of nature for visually-impaired vacationers and staff of the Burkeville Lodge.

The site is located along the western lakeshore of the Burkeville Lodge. From the front entrance of the Lodge, it takes approximately five minutes to walk to the site; wayfarers follow a stainless steel guide rail along an asphalt path which descends towards the eastern shore of the lake, cross a wooden footbridge to the other side, then turn left along a dirt hiking trail. The buildable area is 50 feet wide and 125 feet long, extending 25 feet over the lake, with a rising slope of 15 feet from the water line to the top of the site. The maximum height of any structure may not exceed 50 feet above the site's highest point.

Your design proposal must consolidate the following:
- Place to gather, with seating for at least 15 people;
- Place(s) to sit privately / individually and observe nature;
- Sheltered space (from insects and the elements);
- Non-visual cues for navigating through the space; and
- Spatial strategies for facilitating a non-visual experience of nature.

About blindness / vision-impairment:
- Only five percent of individuals with vision-impairment have no sight at all; the remainder have varying degrees of visual impairment, which may include a limited field of vision (being unable to see to the side or up and down); some loss of central vision (limiting the ability to see fine detail); gross short-sightedness (seeing the world as a continuous blur); uncontrollable oscillations of the eyeball (resulting in unclear vision); and night blindness (sensitivity to light and a tendency to be dazzled by glare).
- Among the many ways in which blind individuals navigate the physical environment are by using a white cane (to detect obstacles, anticipate grade changes, and sense the materiality of the walking surface); relying on a service animal (e.g. trained guide dog); implementing auditory cues and tactile elements on building surfaces (e.g. raised floor tiles, guiderails); and reading three-dimensional maps and braille labels. Individuals with low vision may be able to navigate with large print and/or high-contrast color combinations and lighting. And preferred routes are intuitively / predictably navigable, like the cadence of a stair (with obstructions and overhanging elements removed).

(1) 24 x 36” board (portrait orientation)
(2) Scale model (not to exceed a footprint of 10 x 24”)
Do not place your name or any identifying information on your submission.

- Tuesday, Jan. 17th (2pm), Room 300
  Distribution of project brief, Q+A
- Wednesday, Jan. 25th (between 5-7pm), Lobby
  Due date / pin up projects
- Friday, Jan. 27th (1-3pm), Lobby
  Discussion of project submissions / award announcements
  (Work should be pinned down / removed by the end of the day)

Second-year students gather in the lobby around their 24 x 36” competition boards and scale models to hear the jury’s evaluation of project submissions and announcement of competition winners.

2024 ACSA DIVERSITY ACHIEVEMENT AWARD

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2) blind design workshop (overview)
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11) 2nd-year competition (parents’ feedback)
12) blind design workshop (community engagement)
13) thesis honor award (matthew schrage)
14) thesis honor award (matthew schrage)
15) publications (completed)
16) publications (work in progress)
17) accessibility certification (IAAP)
18) mobile application (smartguide)
19) teaching evaluation
20) UCI excellence award
BURKEVILLE LODGE

SITE VISIT

Following the competition, my 2nd-year studio (of 19 students) spent a month further developing their competition design proposals (for a blind-accessible nature observatory). Then, on the 18th of February, 2023, we visited the membership and administration of the Burkeville Lodge for the Blind in Burkeville, VA, and presented the outcome of our work using visual and tactile drawings, 3D-printed building details, and physical models.
In the 2022-23 academic year, I advised fifth-year thesis student, Matthew Schrage, in the development of his final project, Towards an Anti-Ableist Architecture, a satirical narrative which drew on the history of accessibility "to confront the profession's ongoing complicity with the marginalization of disabled individuals." Matt's project was 1 of 12 selected from among 120 thesis submissions, and was ultimately awarded 1 of 4 thesis honor awards by external review.


LEFT: The narrative’s conclusion presents the unlikely outcome of the Modulors’ (non-disabled individuals') attempt to accommodate all Mistakes (disabled individuals) in a single structure, a spectacular freak show at the center of the city. **ACT X: THE TOWER** (the final act) reveals the paradoxical outcome of the Tower's continuous construction (icons of accessibility perpetually heaped one above another into the sky): "Now accommodating over a quarter of the city's population, The Tower has quickly expanded to a preposterous scale. The Tower has become so inconceivably sublime that against all attempts to hide from it, the Modulors cannot escape its omniscient gaze. The Tower watches them at every waking moment, in every concealed crevice and corner. They must survive in a constant state of hypervigilance, warned to remain alert, cautious, and loyal. While the Modulors toil to no end to deny its inevitability, the Tower stands in total omnipotence over the city. They are trapped in an eternal state of paranoia."
A group of blind men holding each other in single-file, taken from Pieter Bruegel the Elder’s 1568 painting “The Blind Leading the Blind” introduces ACT VIII: CENTER FOR WAYFINDING. “The Renegades [well-intentioned non-disabled architects] identify “wayfinding” as one of the Mistakes’ key challenges, so they design a simple navigational system with tactile floor paving, allowing them to navigate independently. The building will become the new “Center for Wayfinding,” the most accessible building of its time. Wholly engrossed in resolving the problems of access, however, they forget to design the architecture. To what their access-ible building grants access, no one knows. The Mistakes enter the Center for Wayfinding, wandering its accessible path in an eternal search for architecture.”

ACT VII: DREAMLAND. “Determined to reverse the damages caused by the Modulor architects, the Renegades graciously take it upon themselves to rescue the Mistakes from their pitiful condition. Digging through the architects’ disposal sites, the Renegades reclaim the accessible forms that had been amputated during Liberation [ACT VI]. Through clever repurposing, they erect an accessible Dreamland.”

SUPPORTING MATERIAL
I have actively published the outcomes of the BDW at a number of online outlets and international conferences, including: archcareersguide.com (“Challenging Ocular-centrism in Design Education”); the 2022 Future Bodies Symposium (“Ocular-centrism and the Future of Design Education”); and the 2023 Including Disability Global Summit (“Blind Design: Extraordinary Outcomes of Speculative Space-Making”).

**SUNDAY, OCTOBER 2**

10:30 AM - 12:00 PM  PANEL SESSIONS

**Design: Breaking the Grid**

- Samantha F. Wetwood - Breathing the Grid: The Materiality of Play in Typography
- Andrew Gipe-Lazarou - Ocular-centrism and the Future of Design Education
- Anne K. Jacobson, Eden Ünlüata-Foley - Future Bodies in New Media Education: Community-Colleges as a Part of the Equation
- Eiman Mohamed Elgewely - Accumulated Layers of Historical Information Visualized in a 3D Immersive Environment

**Including Disability Global Summit Program 2023**

**Day 2 - Wednesday, April 26**

**Session 1: Envisioning a Different World**

9:00 a.m. - 11:45 a.m. EST

10:10 AM – 10:35 AM

- Blind Design: Extraordinary Outcomes of Speculative Space-Making
  - Presented by: Andrew Gipe-Lazarou
  - Moderated by: Nneka Chishole
PUBLICATIONS

WIP

In the spring of 2023, I was awarded a $4,000 summer stipend by the Virginia Tech Center for Humanities to develop a peer-reviewed article entitled “Blind Design: Advances in Non-Visual Pedagogy”. The paper, which is currently in development, will elaborate on the workshop's principal, formative dynamics; chronicle the pedagogical objectives and outcomes of the workshop's first two years of operation (2022/23); and evaluate the practical limitations and possibilities of meaningfully involving individuals with vision-impairment in the space-making process (in the acquisition of a professional degree and pursuit of licensure). I am also working on a second paper, entitled “‘Up-Island’ Architecture and the Artefacts of Deaf Utopia”, to be presented at the 77th Annual International Conference of the Society of Architectural Historians (SAH) in April, 2024. The work will be jointly authored by me and Matthew Schrage, presenting an original assessment of the buildings and infrastructures associated with 'Deaf Utopia' on Martha's Vineyard.

SAH Panel: Histories of Disability and Deafness in Architecture

Dear Matthew and Andrew,

Stelios and I are very pleased to inform you that your paper submission has been accepted for presentation at the 77th Annual International Conference of the Society of Architectural Historians, which will take place April 17-21, 2024 in Albuquerque, New Mexico! We are very much looking forward to hearing more about your research into Chilmark, its buildings and infrastructures, and the debates about a Deaf utopia on Martha’s Vineyard.

Our thanks again and best wishes,

Nina Vollenbroker and Stelios Giamarelos

The Bartlett School of Architecture, University College London

"Histories of Disability and Deafness in Architecture" Panel

SUPPORTING MATERIAL
In August of 2022, because of my ongoing efforts to improve the accessibility of design education, I was awarded funding by Virginia Tech's Accessible Technologies group to participate in the Accessibility Professional Certification Grant Program for the Certified Professional in Accessibility Core Competencies (CPACC) certification offered by the International Association of Accessibility Professionals (IAAP). The grant (amounting to approximately $500) covered membership in IAAP, four months of intensive exam prep training, and a waiver of exam fees. I passed the exam in December, and continue to actively maintain my certification by participating in professional development activities (webinars, workshops, classes, etc.).

Dear Andrew Gipe:

On behalf of the IAAP Certification Committee we are pleased to inform you that you have passed IAAP – Certified Professional in Accessibility Core Competency (CPACC) examination. Your hard work, study, and perseverance helped you achieve a significant goal – recognition of your skills and knowledge as an accessibility professional.

Our exams are scored against a numeric standard that is set in conjunction with the IAAP Certification Committee and our test partners, Professional Testing. This is known as the cut-score, we use a modified Angoff Methodology to reach this standard. We convert raw scores to a scale of 200 to 800. The passing scaled score is 600.

How did you perform?
Your scaled score was: 704

Performance in each domain area is reflected by the following:

- Above Standard
- Near Standard
- Below Standard

Below is an overview of how you performed in each of the three domains covered by the examination:

1. Disabilities, Challenges, and Assistive Technologies
   Compared to the standard, your score on these questions was Above Standard.

2. Accessibility and Universal Design
   Compared to the standard, your score on these questions was Above Standard.

3. Declarations, Standards, Laws, and Management Strategies
   Compared to the standard, your score on these questions was Above Standard.

You will receive an email within the next two weeks from Credly with your CPACC Credly Badge. You can learn more about our new partnership with Credly on our IAAP Certification Badges page. If you earned your CPWA in this session, you will only receive a CPWA Credly badge as CPWA combines CPACC and WAS.

Congratulations again on this achievement! We welcome you to a select group of 3,388 IAAP CPACCs around the world! Use the hashtag #IAAPCPACC in your social media announcements.

Sincerely,

Certification Manager
International Association of Accessibility Professionals (IAAP), a division of G3ict
sam.evans@accessibilityassociation.org
Visit us online at: www.accessibilityassociation.org

2024 ACSA DIVERSITY ACHIEVEMENT AWARD
In the spring of 2023, together with two additional faculty members (from the Schools of Architecture and Computer Science), I was awarded (as Co-PI) two research grants totalling $70,000 to create an audio navigation system / mobile phone application for vision-impaired individuals. The awards were distributed by Virginia Tech’s Center for New Ventures ($50,000) and the VA Commonwealth Cyber Initiative ($20,000). As of writing, the project team (which now includes one graduate and two undergraduate design students) has developed a working prototype and is proceeding with an IRB study to solicit feedback from members of the vision-impaired community about preferred means of tech-assisted navigation, audio description, and alerts.
Following is an excerpt from my 2022 annual review, conducted by former Program Chair, Margarita McGrath and Interim Director, Jim Bassett. The assessment is intended to "evaluate performance in teaching/advising, research/creative work, and service to the School of Architecture, AAD, and the University."

March 23, 2023

Dr. Andrew Gipe-Lazarou, Ph.D.
Visiting Professor of Architecture

Annual Review Letter 2022

Dear Andrew,

You continue to be active, productive, and agile in teaching, research, and service. You organized a successful collaboration between Virginia Tech and the VA Department for the Blind and Vision Impaired. Under your guidance, VT students completed a 1-credit course and instructed a 4-day workshop for blind/visually-impaired learners, teaching architecture non-visually and challenging ocular-centrism in design. The workshop was funded by DBVI and featured a keynote from blind architect Chris Downey. You are currently leading a second iteration this Spring. The impact of your non-ocular-centric design work on the School of Design has been significant, particularly in the short time you have been with us. Your contributions have influenced the academic trajectory of fifth-year students. For the upcoming year, you have put forward a thesis concentration area titled "Beyond ADA: The Phenomenology of Multi-Sensory Space-Making." Fifth-year architecture students conducting research in this area have the potential to learn from one another and contribute significantly to the field as a whole by working together and sharing their findings. Obtaining the certification as a Certified Professional in Accessibility, as confirmed in the official notice received this January, is a significant achievement. This credential will likely help position you and VA DBVI in pursuit of additional funding.

Sincerely,

Margarita McGrath AIA | LEED BD+C
Associate Professor
Architecture Undergraduate Program Chair

Jim Bassett
Associate Professor
Interim Director, School of Architecture

2024 ACSA DIVERSITY ACHIEVEMENT AWARD
"The College Diversity Committee established this award in January 2007 to recognize outstanding diversity efforts. You organized a successful collaboration between Virginia Tech and the VA Department for the Blind and Vision Impaired and it is a significant contribution made to the education of blind and visually impaired students, as well as for architecture students in the program. I speak for the entire Honorifics Committee when I say that you are indeed an outstanding contributor to the diversity efforts of this college.*

– Rosemary Blieszner, Ph.D. (Interim Dean and Alumni Distinguished Professor)