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# ARCHITECTURE AND ACCESSIBILITY FOR UNDERREPRESENTED POPULATIONS

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## **Architecture and Accessibility for Underrepresented Populations**

### **Synopsis:**

This collaborative, interdisciplinary paper considers different hurdles towards accessibility in architecture and the ways in which we as practitioners, scholars, and teachers can encourage access in our respective work and workplaces.

## **Architecture and Accessibility for Underrepresented Populations**

“Accessibility” is a cornerstone of the disability rights movement and has become a buzz word in the design community in recent years. About 1 in 4 individuals in the United States reports having at least one type of disability and since the Americans with Disabilities Act (ADA) of 1990 (revised in 2010), architects have been required to comply with a number of regulations for accessibility and barrier removal. Yet, architecture scholars and historians have been fairly reticent on this issue. If the discipline requires ADA compliance from architects, and architects depend on people being able to access their work to fully experience it, why have they not devoted more time, energy, and discussion to this topic?

This paper, a collaboration between a professor of Architectural History and a professor of Clinical Mental Health Counseling, began as a series of informal conversations about the different types of unique challenges our students at Governors State University in Chicago’s Southland face. Although the term accessibility evokes two different meanings and sets of issues in our two very different disciplines, we knew that these issues were intertwined; a cross-pollination of ideas could produce innovative solutions to familiar problems.

Our paper thus approaches the issue of accessibility from an interdisciplinary and intersectional perspective. We address the ways in which we, as practitioners, scholars, and teachers, can encourage access in our respective work and workplaces. We approach the topic of accessibility from a variety of perspectives, focusing on barriers to access in terms of physical or cognitive disability but also considering barriers of race, sexuality, gender identity/expression, class, religion, nationality and/or citizenship status, and more. We also address the responsibility of teachers: How can accessibility be incorporated into lesson

planning and teaching methodology? How can we push for accessibility on campus – both in the traditional brick-and-mortar buildings as well as in online classes? By raising and attempting to answer these types of questions, we can start to “build” (literally and figuratively) a more accessible environment for all.

Recent literature on this topic has been addressed by architectural historians and museum professionals, such as Wanda Liebermann, Damon Reaves, Aimi Hamraie, Bess Williamson, Jeanne Kisacky, Elizabeth Guffey, and Sun-Young Park (Williamson, Kisacky, Guffey, and Park will be sitting on a panel that the authors are co-chairing at the 2020 conference of the Society of Architectural Historians in Seattle). Each of the aforementioned authors has taken an intersectional, interdisciplinary approach to studying the socio-political history of architectural design and accessibility, helping move these important conversations into the mainstream of architectural discourse. Unique to our discussion, and what we identify is missing from the literature on this subject, are the ways in which these issues impact the very students with whom we faculty members work on a daily basis – how such challenges disproportionately affect students from underrepresented communities, and how classroom design and faculty interventions can better serve those students.

### **Barriers and Challenges to Students with Disabilities**

For the purposes of our paper, we decided to focus on those underrepresented student populations who have physical and/or cognitive disabilities, recognizing the manifold barriers to access that they face in comparison to their white, heterosexual, cisgender classmates. We also address the ways in which the physical architecture of the classroom can either exacerbate those barriers or help remove them.

Discussions of access in an architectural context extend far beyond people with disabilities. We might consider, for example, access denied to people of color into white spaces, whether through Jim Crow laws, Japanese internment camps, redlining and other discriminatory housing practices, or the current administration's efforts to discriminate against immigrants and asylum seekers from majority Muslim countries and Central America. We might also consider access to safe spaces (even restrooms) denied to the LGBTQIA+ and gender non-conforming community. Gender, religion, class and income level also play an important role in gaining (or losing) access to certain types of spaces, and all of the above examples, of course, intersect. With this in mind, truly safe, easy, uncontested access to space is guaranteed to only the lucky few.

About one in four individuals in the United States report having at least one type of disability, with about 11% of individuals with disabilities report attending post-secondary institutions. At Governors State University, only 4% of the student population reports having some type of disability. Although we commonly encounter students with invisible mental health issues, such as anxiety, ADHD, and depression, in many cases these go undiagnosed, as students are faced with mental health stigmas, fear of exorbitant costs associated with treatment, or lack the awareness of on-campus student health and counseling services to help provide accommodations. Transgender and gender non-conforming students might be hesitant to visit the campus health center if they believe they may be discriminated against, or have had negative experiences with health professionals in the past. Students of color are likewise less likely to report having a disability, and with a diverse student body that comprises a majority African-American or black students, this is a pressing concern at our university.

Now that we have addressed the various barriers and challenges for students from underrepresented populations, we will suggest some ways in which professors can create and foster an accessible environment on a college campus – both through the design of physical space and through individual action on behalf of faculty and staff. Before we propose possible solutions, however, it is important to identify some of the architectural issues that contributed to the lack of accessibility on college campuses during the construction boom of the 1960s and 1970s in the United States.

### **Accessibility on College Campuses**

Although many of the well-known ivy-league university campuses constructed in the United States during the 19<sup>th</sup> and early 20<sup>th</sup> centuries (Harvard, Yale, Princeton, Columbia, etc.) are known for Gothic Revival or Neoclassical styles that evoke the seriousness and exclusivity of pursuing higher education, the style of choice for many college campuses constructed in the 1960s and 1970s was Neo-Brutalism. The name provides insight into the style – as a new take on the original Brutalist aesthetic vaunted by Le Corbusier in France, Neo-Brutalist architects in Europe retained the visible influence of that modernist style, absorbing and expanding upon the “tower in the park” model (as in the work of Peter and Alison Smithson in Great Britain) to design high-rise slab blocks surrounded by communal green space. Mostly used (and rightly criticized for) its application in public housing projects, the Neo-Brutalist style retained the emphasis on materiality, using raw concrete and leaving materials unadorned and roughly-hewn.

However, one of the criticisms leveled against Neo-Brutalism was that it lacked accessibility as well as a human touch. In the City College of New York's North Academic Center (NAC) building, for example, which was begun in the 1970s and completed in 1984, the lack of windows and the visible cinder blocks that form the walls in most of the classroom interiors, creates a claustrophobic, prison-like atmosphere. Governors State University's main campus buildings were designed in this manner as well. The campus, a megastructure of connected buildings that mostly date from the 1970s, features unadorned brick and raw concrete; windows are rare in the classroom spaces, reserved for faculty and staff offices. For students who come from underserved communities (which in recent years has comprised a large percentage of our incoming freshmen), these types of classroom spaces might elicit negative associations, as visual reminders of underfunded public high school classrooms or even prisons. Connections like these have prompted architect and academic Frank Locker to ask: "What do you think of when you're in a space with closed doors and a hallway where you can't enter without permission or a bell that tells you when you can enter and leave?"<sup>1</sup>

What, then, does an accessible, inclusive, and welcoming classroom look like? How is it constructed, both literally and figuratively? As architectural historians, we are constantly noting and critiquing the ways in which space is constructed – both by whom, and for whom. We question the space itself – the size, and whether or not it can accommodate the number of people it will eventually hold; the number and size of windows, our access to light and air; the

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<sup>1</sup> Nicolás Valencia (Maggie Johnson, trans.), "The Same People who Designed Prisons Also Designed Schools," *ArchDaily*, November 18, 2018 (accessed December 15, 2019), <https://www.archdaily.com/905379/the-same-people-who-designed-prisons-also-designed-schools>.

practical concerns and constraints, such as points of safe egress in the case of an emergency, and structural integrity; finally, we consider the way the building corresponds with the elements of interior design and decoration. Less often, we might think about the relative accessibility of spaces as they adhere to the ADA regulations, and whether or not they are wheelchair accessible.<sup>2</sup> Rarely, I would imagine, do most architectural historians question the integrity, aesthetics, and accessibility of the very classrooms in which they teach.

The accessible classroom could take many forms. It could have an open plan, multiple points of entry, and movable and/or see-through walls, reinforcing the underlying symbolism of openness, transparency, flexibility, and democracy that places of higher learning strive to represent. It should be outfitted with technology that allows us to adapt to students who have impaired hearing or vision, students who struggle with dyslexia, or those who are on the autism spectrum. Generally speaking, we ought to consider a more hospitable classroom – one with natural light (in the form of windows or skylights, when possible, or even just opaque glass to allow in ambient light from the hallway), natural construction materials like wood or bamboo instead of concrete and steel, and color, an element almost always lacking in the average classroom.

Accessibility for persons using manual and motorized wheelchairs and scooters or other forms of mobility assistance, body size, and functional abilities must also be kept in mind. Classrooms should be designed to allow sufficient passing and turning space as well as

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<sup>2</sup> When Thomas Heatherwick's "Vessel," a monumental structure in Hudson Yard in New York City, opened in March 2019, for example, it was immediately criticized by accessibility rights advocates for the lack of accommodations for people in wheelchairs and those who have difficulty with stairs.

adequate door space for all students to enter and navigate the classroom with ease. Tables and desks should provide clearance for knees and toes; unobstructed views and forward and side reach should also be considered if students are going to be asked to use equipment in the room (such as writing on the board, or viewing projected images on the screen). These considerations should be covered by ADA guidelines; however, faculty need to be aware of possible obstructions (temporary and long-term) or other factors that might affect a student's ability to move freely and comfortably in the classroom.

Poor classroom acoustics are an additional educational barrier, especially for those who have speech impairments or learning disabilities, those who have hearing loss, and those who use hearing aids or have cochlear implants, as assistive technologies amplify both wanted and ambient sounds.<sup>3</sup> Additionally, students who have temporary hearing loss – which can be up to 15% of the school age population, according to the Centers for Disease Control – are also affected.<sup>4</sup> The United States Access Board has been studying classroom acoustics since 1998, when they joined with the Acoustical Society of America (ASA) to set best practice standards.<sup>5</sup> In May 2010, they published the final standard: maximum levels of background noise (35 decibels) and reverberation time (0.6 to 0.7 seconds) for unoccupied classrooms.<sup>6</sup> Above all, for

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<sup>3</sup> Architectural and Transportation Barriers Compliance Board, "Classroom Acoustics: Background," published in the *Federal Register* June 1, 1998; available via the United States Access Board (accessed December 15, 2019), <https://www.access-board.gov/guidelines-and-standards/buildings-and-sites/124-classroom-acoustics/background>.

<sup>4</sup> Architectural and Transportation Barriers Compliance Board, "Classroom Acoustics: Background."

<sup>5</sup> Our thanks to Christine Scully, ICC Certified Accessibility Inspector, CASp, for drawing our attention to this study.

<sup>6</sup> Architectural and Transportation Barriers Compliance Board, "Classroom Acoustics," published in the *Federal Register* June 1, 1998; available via the United States Access Board

students whose first language or “at-home” language is different from the teaching language, the ability to hear clearly is of utmost importance (at Governors State, for example, we have a growing number of international students and first-generation immigrants, including a relatively large number of Serbian students). For these reasons, it is key to include both aural and text-based information for presentations and lectures, closed captions on videos, and offer classroom note-takers for those who may benefit from that service for physical and/or cognitive learning disabilities.

In the online classroom, students who have hearing or vision impairments, as well as those who have dyslexia or other learning disabilities that affect one’s ability to write or read with ease, are especially at a disadvantage considering these courses tend to be reading- and writing-intensive. Moreover, students who are currently experiencing financial insecurity have additional barriers, as online classes require access to a computer and the internet, two needs that would be met by the university if the student were regularly on campus.

### **Pedagogy and Students with Disabilities**

We have discussed the barriers and challenges for college students with disabilities in addition to the structure of the classroom. Now let’s move forward to discuss teaching practices that can aid college students with disabilities to be academically successful. In order to be an effective teacher for our students, we must incorporate a variety of teaching

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(accessed December 15, 2019), <https://www.access-board.gov/guidelines-and-standards/buildings-and-sites/27-classroom-acoustics>.

techniques within the learning environment. Most students learn best visually and kinethically; however, in order to reach a variety of students, we must utilize methods that incoportate multiple types of learning. For example, in my classroom, I (Dr. Bell) lecture, use visual presentations, engage in small and large group discussions, utilize role play, and show videos. These multiple methods tap into the learning style of the majority of my students, especially those with diagnosed (or undiagnosed) disabilities.

I (Dr. Siefert) employ many of the same strategies as Dr. Bell, such as multi-modal learning and small and large group discussions. As someone who teaches art and architectural history, I also incorporate a lot of hands-on and experiential creative projects, both in and out of class. Although traditional art and architectural history courses have earned a bad reputation (you have most likely discovered fisthand how dimmed lights, a lecturer droning on about the ancient world, and limited interaction is a recipe for disaster), I have found positive change is sweeping the discipline as new technologies, and social media in particular, are reenergizing the way we teach. Embodied pedagogy is another useful strategy that gets students moving and activates the physical space of the classroom; however, we need to be cognizant of how each strategy might help certain students at the same time that it alienates or challenges others.

Variation and accommodation is always key.

Faculty might also benefit from forming a group dedicated to pedogogy and faculty development, as we have done at Governors State University. In the spirit of collaboration, we share resources, discuss common challenges, and read relevant texts on different teaching strategies. These readings help connect teaching tips to classroom experience; books such as Wilbert McKeachie's "McKeachie's Teaching Tips: Strategies, Research, and Theory for College

and University Teachers” or Ken Bain’s “What the Best College Teachers Do” are especially useful to kickstart general conversations about pedagogy.<sup>7</sup> However, we encourage faculty to consider texts specifically on inclusive teaching, underrepresented. Populations, and students with disabilities (such as Viji Sathy and Kelly A. Hogan’s article posted in the Chronicle of Higher Education this past July, Frank Harris and J. Luke Wood’s “Teaching Boys and Young Men of Color,” and Joseph Boyle and Mary C. Provost’s “Strategies for Teaching Students with Disabilities in Inclusive Classrooms”).<sup>8</sup> These are just some of the ways that we can start to create a culture of accessibility on campus.

## Conclusions

These types of accommodations seem obvious, and surely they ought to be commonplace and widely acknowledged by faculty members, students, university staff, and administration. However, in our experience, classroom design and accommodations usually go unnoticed except by those who need them the most (or those who are held to ADA guidelines). Faculty might talk about inclusivity and architects might show interest in accessibility, but for

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<sup>7</sup> Marilla Svinicki and Wilbert J. McKeachie, *McKeachie’s Teaching Tips: Strategies, Research, and Theory for College and University Teachers* (Belmont, CA: Wadsworth, 2011); Ken Bain, *What the Best College Teachers Do* (Cambridge, MA: Harvard University Press, 2004).

<sup>8</sup> Viji Sathy and Kelly A. Hogan, “Advice Guide: Want to Reach All of Your Students? Here’s How to Make Your Teaching More Inclusive,” *The Chronicle of Higher Education*, July 22, 2019 (accessed December 15, 2019), [https://www.chronicle.com/interactives/20190719\\_inclusive\\_teaching?fbclid=IwAR3pog3trSVQDYR2GSIUNg\\_GDt4gsv-WPksQ3jN2bQPovNJHm0oORdjkgE#5](https://www.chronicle.com/interactives/20190719_inclusive_teaching?fbclid=IwAR3pog3trSVQDYR2GSIUNg_GDt4gsv-WPksQ3jN2bQPovNJHm0oORdjkgE#5); Frank Harris and J. Luke Wood, *Teaching Boys and Young Men of Color* (San Diego, CA: Center for Organizational Responsibility and Advancement, 2016); Joseph R. Boyle and Mary C. Provost, *Strategies for Teaching Students with Disabilities in Inclusive Classrooms: A Case Method Approach* (Upper Saddle River, NJ: Pearson, 2012).

the university to truly embody those buzz words, we must work together to advocate for our students. This is especially true for students from underrepresented populations, those who are our most underserved and vulnerable students.

From more accessible classroom design to multi-modal teaching strategies, we can build a more equitable classroom for all students. The two must work hand-in-hand, and even so there must be constant vigilance and adaptation on the part of the faculty to the students' changing needs. Although we have alluded to the importance of considering how students of color and LGBTQIA+ students with disabilities are disproportionately affected, much more work needs to be done in that area to sufficiently address the unique barriers that those students face. Open communication is key as well, not only between teacher and student but between faculty members working in different disciplines. It is this interdisciplinary approach that the authors of this paper hope to encourage, in an effort to prioritize the student and help dismantle their barriers to learning.