Revolutionizing Space: A Case Study on Accessibility and Comfort

By Jennifer MacMartin

ABSTRACT. Influenced by a dynamic and revolutionary crip theory, this piece seeks to operationalize the combination of crip theory/disability studies and intersectional feminist praxis. Dis/ability is consistently disregarded as a central social identity, as the world has been literally built and maintained by (temporarily) able-bodied people with the intent to accommodate able-bodied people’s needs and comfort. DeafSpace, a revolutionary project prioritizing deaf people’s needs and comfort, serves as a case study for potential revolutionary architectural projects that focus on dis/ability accommodation, accessibility, and comfort. However, in seeking additional solutions to this issue, we must be conscious of tokenizing the experiences of individuals with disabilities, and rather, seek to revolutionize architecture and engineering developments as a whole.

Keywords: crip theory, dis/ability, feminism, intersectionality, architecture

Navigating the spatial world is not something that able-bodied individuals have to consider on a daily basis: this world was literally built for us. Classrooms, public transportation, shopping centers, skyscrapers, and entire cities were historically built by and for able-bodied people; people with disabilities are often an afterthought for architects and developers. Nation-wide standards for building developments in the United States did not exist until 1961, when the first national design standard—the American National Standards Institute—was created (National Institute of Building Sciences, 2016). Only recently, in 2014, were standards published for outdoor recreational
areas, such as walking trails, campsites, and beaches (National Institute of Building Sciences, 2016).

Contemporary intersectional feminism makes an intentional effort to call attention to various social identities and the interlocking oppressions people experience based on these complex identities. Dis/ability is one of the identities that is often considered the least by able-bodied people; their ability to navigate the world around them is not altered by their physical or mental capacity. As contemporary intersectional feminism is an all-encompassing movement aiming to end all oppressions and recognizing the multiplicity of the human experience, dis/ability activism is on the forefront of feminist and queer scholarship. Intersectional feminism, as utilized in contemporary feminist discourse today, focuses intentionally on these various intersecting identities. Additionally, queer theory and crip theory have developed often in tandem with one another, as queer people are often pathologized and viewed as somehow “disabled” historically, while people with disabilities are often viewed as decidedly queer (McRuer, 2006). Both feminist theory and queer theory can (and must) inform our understandings of crip theory, and vice versa.

A popular volume of scholarly articles regarding the complex intersection of feminism and dis/ability activism, Feminist Disability Studies edited by Kim Q. Hall (2011), introduces the inherent, but complicated, link as follows:

Feminist disability studies, like the gendered or disabled body, is more than a sum of its parts. Just as disability studies shows how disability is irreducible to bodily impairment, feminist theory shows how gender is irreducible to biological sex. However, understanding feminist disability studies as simply a combination of feminism and disability studies dulls its critical edge and lessens its potential to intervene in theoretical and social transformation (Hall, 2011).

The key component of this definition iterates the “potential to intervene in theoretical and social transformation” (Hall, 2011); thus, this is not solely unapplied academic work, but
rather a contribution to a wider goal of movement-building, change-making, and revolution. Within this framework, I seek to deconstruct the ways in which our physical space has been constructed and analyze the resulting oppression and marginalization that individuals with disabilities face within these physical spaces. As a part of this analysis, I will explore the potential for revolutionary reconceptualization of our physical space with DeafSpace as a case study, making accessibility, inclusivity, and comfort the forefront of design.

Rooted in a feminist epistemology, this work and research is partially based on standpoint theory: the idea that research is best conducted by and for the marginalized, studying from the “bottom up” as opposed to traditional “top down.” Personal experience is deeply rooted in all research, whether acknowledged or not. While I, myself, am temporarily physically able-bodied, my mother is physically disabled and thus I have navigated much of the world alongside her experiences. My research and call to action are both influenced by these experiences; I have considered physical spaces, and movement within them, far more often as a result of her disability and physical limitations.

The goal within this reach is to acknowledge our inaccessible, uncomfortable physical spaces, and advocate for more inclusive architecture and design. Airplanes, concerts, shopping malls, even polling places (National Council on Disability, 2013)—all commonly accessible in able-bodied people’s lives—become nearly impossible to navigate from the neglect of architects and engineers. By revolutionizing our conception of our physical space, we can make our society more accommodating and comfortable for people with various disabilities who comprise approximately 12.6% of the United States (Erickson, Lee, & Von Schrader, 2016).

DeafSpace, a revolutionary design technique catering to deaf folks’ needs in navigating buildings, is a potential case study for laying the groundwork of this intentional developmental design. There are five main tenets of DeafSpace’s design (Gallaudet University, 2016):
I. Sensory Reach: Restructuring spacial orientation, allowing for full 360-degree “wayfinding.” This may include semi-transparent walls or doors, as deaf folks are generally more sensitive to background visuals and movement. This can help cue them to entering persons, ongoing conversations, a busy conference room, or expressions/gestures of others.

II. Space and Proximity: Allowing optimal space for sign language and gesturing. As signers necessitate more room to gesture, especially as participants in conversation grow, this tenet calls for ample room sizing, furniture positioning, and avoiding limiting protrusions.

III. Mobility and Proximity: Allowing for signers to walk and talk at the same time, with ample space for movement and hazard prevention. This may manifest in wider hallways, broader staircases, and rounded wall corners.

IV. Light and Color: As visual communication is essential for deaf folks, poor lighting or contrast makes signing especially exhausting. By avoiding glares, limiting shadow patterns, eliminating backlight, and diffusing harsh sunlight, softer lighting and coloring can be utilized to make visual communication easier.

V. Acoustics: Not all deaf people are completely lacking all hearing capabilities; therefore, background reverberations or acoustics may be incredibly distracting for those with some hearing or cochlear implants. By improving the acoustics (through materials and surface-building), individuals with some hearing can be made more comfortable.

DeafSpace stands as a radical, revolutionary example of potential for change within architectural and engineering spaces. Within these designs, accessibility and comfort are intentionally prioritized; in a world where the privileged are often invisible, cloaked in normalized assumptions, this distinct shift in design-making brings inclusivity to the forefront.

Makerspaces—innovative physical spaces where individuals can gather to spread ideas, build, tinker, and network—are becoming popular in the engineering culture today and there is a movement to consciously build these makerspaces with intentionality for people with disabilities. Makerspaces can, and should, be restructured with open
pathways, adjustable desks and whiteboards, braille labels for tools and equipment, easily moveable furniture, large-print signs, assistive technology, etcetera (Burgstahler, Cakmak, Steele, & Blaser, 2015). As makerspaces are a place for community, inspiration, and development, all community members should be equally welcomed into these spaces to participate. “Making a Makerspace? Guidelines for Accessibility and Universal Design” outlines dozens of questions developers should ask themselves before creating one of these spaces. However, should these questions be limited to makerspaces and specialized buildings alone, or be more readily applied in common building developments?

There is absolutely a clear difference between apathetic, regulated accessibility and sympathetic, intentional comfort. Ramps outside of buildings, for example, are often accessible, but uncomfortable, placed at the back of buildings, forcing individuals with mobility disabilities to maneuver at the demand of able-bodied individuals. Able-bodied architects perhaps concern themselves more with the aesthetics of the building, as opposed to inclusivity. Inclusion of people with disabilities is often an afterthought; a regulation to abide by. Thus, wheelchair spaces are segregated and ramps are hidden behind the facade of buildings. We must transform our thinking to view these design techniques as inspiring, rather than limiting; liberatory, rather than regulatory.

Integrating this into all architecture would be truly revolutionary; creating a checklist for accessibility and comfort for every physical space would literally result in a new physical world. DeafSpace is a radical idea, but these basic alternative development strategies can be created for every building, not only highly specialized ones.

Direct solutions regarding this issue are clear, albeit incomplete. Representation of people with disabilities in engineering is incredibly low: “in 2008, students with disabilities received 1% to 3% of the doctorates in most science and engineering fields” (Sevo, 2012), compared to the aforementioned 12.6% of people with disabilities in the
United States (Erickson, Lee, & Von Schrader, 2016). Additionally, it has been shown that marginalized communities can often produce better, and more intentionally inclusive work, than privileged communities; their “funds of knowledge” that stray from the norm benefit their capacity for innovation and progressive development (Smith & Lucena, 2015). Increased representation can transform our physical spaces, empowering people with disabilities to revolutionize our world and how we navigate it.

However, this should not serve as the beginning and end of our endeavors: “the idea that marginalized citizens are somehow naturally interested in the technical problems of their own communities is problematic” (Slaton, 2010). We must not simply recruit individuals with disabilities into architecture and engineering fields with expectations for them to solve “their own” problems. Rather, we must revolutionize architecture and engineering as a whole, and bring able-bodied architects and engineers into this conversation as well. We must utilize inclusive checklists as developed by Sheryl Burgstahler: identifying the space, defining the universe, involving consumers and stakeholders, and then adopting guidelines or standards, rather than the reverse order (Burgstahler, 2012). These developers have a role to serve their community, and develop spaces that are accessible and comfortable for everyone, regardless of their capabilities.

Inclusive development and revolutionizing the physical space around us can, and must, be included in our vision of a feminist utopia. If the feminist mission is to eradicate all oppressions that women face, each intersecting identity must be considered and explicitly accommodated and quite literally, built into our feminisms.
References


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