

Design for all requires a culture change in architecture

By Zach Mortice, October 14, 2019



LCM'S HEADQUARTERS DESIGN FOR ACCESS LIVING, A DISABILITY ADVOCACY AND SERVICES NONPROFIT, INCLUDES A FULLY ACCESSIBLE GREEN ROOFTOP AREA, PROVING THAT ACCESSIBILITY AND SUSTAINABILITY CAN GO HAND IN HAND.

Holistically embracing accessibility means understanding it as an element of social responsibility.

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In 1978, John Catlin, who'd been a wheelchair user for four years after a spinal injury, began graduate school in architecture at the University of Illinois at Chicago (UIC). In 1973, federal legislation was passed that prohibited discrimination against people with disabilities, including facilities designed, built, altered, or leased with federal funds. The UIC Art and Architecture Building predated the new legislation, which its more than a dozen level changes and idiosyncratically complex floor plan made perfectly clear. One of [Walter Netsch's](#) most formative endeavors into his [field theory](#) philosophy of design that posited rotated cubes as modules of ever-increasing geometric complexity, this Brutalist building was a singular vision that didn't quite work for people like Catlin, who along with Richard Lehner, AIA, and Doug Mohnke, AIA, would go on to found Chicago's [LCM Architects](#).

Netsch's building sacrificed granular empathy for users' needs and wants in favor of an iron-willed veneration of the contemporary public realm. "Our class worked in the basement the first year, but it didn't matter because in that building there were no windows," he says. The freight elevator was the only way for him to get there. The next year, the school built a long ramp (still intact) to one of the studios. It wasn't ideal, but "they made it work," Catlin says.

The critique of accessibility offered by this building's physical infrastructure is obvious, but perhaps less obvious—though just as vital—is the conception of accessible design offered through the pedagogy and practice of architecture, outside of its design product. From Catlin's time in graduate school till now, a leading edge of architects is examining accessibility not just as a civil rights issue, but also as an equity and inclusion issue.

Valerie Fletcher, executive director of the [Institute for Human Centered Design](#) in Boston, says the World Health Organization defines disability as a contextual phenomenon. "Disability occurs at the intersection of the person and their environment," she says. Architecture, in all its forms, also occurs at the intersection of the person and their environment, making it a vital player in any evaluation of inclusion. But often architects deal with accessibility with a much too narrow and prescriptive toolset.

From ADA to today

Architects most commonly understand accessibility issues through a code-based lens, namely the [American with Disabilities Act](#), which will be 30 years old next year. And in many cases, this set of codes and regulations hasn't been internalized by design culture, and is often applied to architecture as an additive layer of specialty features: clumsy grab bars, shoehorned wheelchair ramps, and the like.

In 1997, Ron Mace at North Carolina State University and others formulated a set of design goals called "[The Principals of Universal Design](#)" that sought to address accessibility through a series of broad aspirations (equitable use, low physical effort, perceptible information, tolerance for error, etc.) Universal Design is the antithesis of an additive layer of accessibility, says Catlin. Instead, it calls on designers to integrate these ideals into the design process as early as possible, and pose accessibility requirements as design problems to be solved; as constraints to inspire synthesis.

“For too much of the profession, not understanding the rationale behind the requirements for accessibility results in making those requirements seem like simply another code burden,” says Erick Mikiten, AIA, a wheelchair user and founder of [Mikiten Architecture](#) in Berkeley, California. “When designers understand the goals behind the requirements more deeply, they can be creative and avoid the institutional look that can make accessibility unattractive.”



A HOME ADDITION DESIGNED BY MIKITEN ARCHITECTURE FOR A FAMILY OF THREE (INCLUDING A WHEEL CHAIR USER) SEAMLESSLY BLENDS ACCESSIBILITY, FUNCTIONALITY, AND BEAUTY.

“The best designs are projects that enhance the lives of the people that are going to use the building,” says Karen L. Braitmayer, FAIA, principal of [Studio Pacifica](#), a wheelchair user and this year’s [AIA Whitney M. Young Jr. Award](#) recipient. “And if it’s a public building, that means everyone. Designers have a misconception that accessibility features are unattractive, but with creative thinking and excellent design, accessibility can be beautiful. And that creates spaces that welcome everyone.”

Design for everyone must be top of mind from the beginning

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Moving beyond a code-based understanding of accessibility allows designers to provide equity of experience, Mikiten says. A building that offers people who can walk a grand monumental staircase procession into a glass-ceilinged atrium but gives people using wheelchairs an elevator down the hall next to the broom closet may be to code. But it's not an equitable building. "This tells wheelchair riders, parents with strollers, and others that their experience of the building is less important," he says.

Architecture students, Mikiten says, need to hear from people with wide a spectrum of disabilities, not just those with mobility issues, to understand their needs. And no student design review should pass without an evaluator asking: How does your building work for everyone?

"[Accessibility] is taught at the same time as the plumbing and electrical codes are taught, as if it were no different," says Fletcher. She says students today are predisposed to think in collective and communal terms, and that can be a key leverage point. If they're taught to think of people with different abilities as a part of their own community, and also a self-determined group of their own, accessibility snaps into focus as a social equity issue they have a stake in.

Today, there's still a critical need for research exploring the sensory and cognitive perceptions and physical limitations of people with disabilities. There is very little research on how non-neurotypical people (like individuals with autism) perceive space, and not much on how mental health disabilities like depression can be ameliorated through the built environment. In general, there a paucity of study on all disabilities outside of mobility limitations and wheelchair users. And as more and more baby boomers retire and age, there's a gap in how much we know about how aging manifests disabilities. Specifically, little research has been deployed toward learning how partially sighted people (85% of people considered "blind") and partially deaf people perceive their environment.

Sustainability and accessibility: movements with different momentum

Gathering this research and seeing it put to use in accessible architecture has been a slow process, and the very fact that accessibility first entered architectural design culture as a law may well be part of the issue, says Catlin. It's an instance of politics running ahead of design—the opposite of, for example, the understanding of buildings' role in sustainability and climate action, which was championed by architects long before it gained traction in city halls, statehouses, and elsewhere. Because accessibility was often not introduced through an explicitly architectural discourse, like contemporary conceptions of sustainability, there's been less professional ownership of it.

For her part, Fletcher doesn't want more codebooks or legislation; she wants a grassroots culture change. "We've got to get there by appetite, more than a big stick," she says.

"It does sometimes surprise me that the profession adopted the concept of green design 20 years ago," says Catlin. "That's a good thing, but there aren't many laws that apply to green design. It was 30 years ago that the ADA was passed. I think architects enjoyed the challenge in terms of green design, and they understood the common good that green design would result in, and how it benefits society. So they were willing to explore solutions and look at ideas. That's never happened

“Architects don’t really realize how accessibility ties in to sustainable and green design,” says Andrea Kovich, an accessibility consultant at Studio Pacifica and a wheelchair user. “If we start building buildings that accommodate aging, then we don’t need to tear them down when they don’t work for a certain population, and that’s really a sustainable idea.”

The lack of parity with the sustainability movement is one measure of accessibility’s lack of internalization within architecture. And the fact that focusing your practice on making sure that as wide a cross-section of humanity as possible *can even use the building* can get you branded a “specialist” is yet another. “Early in my career, it turned me off from becoming an expert in accessibility beyond my own personal experiences,” says Mikiten. “I didn’t want to be the one that would get pigeonholed as an only-accessibility technician.”

“Accessibility is a topic that should be brought to the very beginning of any project.” - Karen Braitmayer, FAIA

But Mikiten’s experiences as a new architecture graduate made it clear that it would be difficult to not stand out from his peers, no matter his design aspirations. He received an early job offer with Venturi, Scott Brown in Philadelphia but decided not to take it because only the first floor of its studio was accessible. At the time, its office housed the model shop on the first floor, with the main office above. The professional hierarchies that all new hires would seek to master and climb were a literal barrier to him. “I would have been stuck as a drafter among model-builders,” Mikiten says. Conversely in 1986, before the ADA was law, Moore Ruble Yudell in Santa Monica built him a ramp so that he could work there as an intern.

Addressing school and workplace issues of equity, diversity, and inclusion—including accessible offices—is an imperative. So is creating more access for people with disabilities to see architecture as a career option. Accepting the Whitney M. Young Jr. Award at the AIA Conference on Architecture 2019, Braitmayer championed an expansion of the definition of diversity, hoping that in the future, architects will see individuals with disabilities as essential members of the profession.

“Accessibility is a topic that should be brought to the very beginning of any project,” Braitmayer said, asserting that if there were more individuals with disabilities working at architecture firms, that would be not just her dream, but a reality. “Diversifying our design staff would result in more inclusive projects,” she said.

Great designs can—and should—be for everyone

Mikiten uses his perspective as an architect with a disability and his specialized knowledge to make projects better, but “that’s not what I lead with, because I want to be known as a great designer, not

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as ‘Erick the Technician.’ Technical knowledge does not exclude great design.”

And for accessibility and inclusion, “great design” can be expressed both with subtlety and bombast.

The monumental spiral ramp at AIA Firm Award recipient **Leddy Maytum Stacy Architects’ Ed Roberts Campus** in Berkeley, California, is a prime example of using a grand formal gesture to communicate accessibility clearly and transparently by inviting all who enter the building to ascend it together. “It takes the opportunity to use an element of accessibility and make a sculpture out of it,” says Mikiten, who also worked on the project.



THE SPIRAL RAMP AT THE ED ROBERTS CAMPUS, DESIGNED BY LEDDY MAYTUM STACY ARCHITECTS, IS A DRAMATIC AND ACCESSIBLE CENTERPIECE.

But accessible buildings can also shepherd in universal design features that are so well-integrated that they’re nearly invisible.

Access Living in Chicago, the headquarters for a disability advocacy and services nonprofit, was designed by LCM Architects. And there, accessibility touches just about every space and surface, though it’s hard to tell at first glance. For example, its sidewalk has an embedded snowmelt system, to avoid wheelchair-users pushing through ice and slush. (It’s also a superior choice to ice melt chemicals for those with chemical sensitivities.) To aid visually impaired people, darker-colored pavers on the sidewalk lead into the building on axis, and the pattern continues along the carpet all the way to the reception desk. Hallways accommodate two wheelchairs and an ambulatory individual side by side, and elevators accommodate two wheelchairs side by side, with doors on each end to aid circulation. Inside the elevators, a decorative metal-panel wainscot protects the surfaces from wheelchair caster wheels, as does the high-impact drywall placed along the floor throughout the building’s walls.

“We’re one of the few architects you’ll ever meet who doesn’t want you to notice some of our best work,” says LCM’s Lehner. The relative invisibility of these features is one way to achieve equity of experience, and to strip away any vestige of low-rent and provisional institutional design. At Access Living, Lehner says, most of these accessibility measures don’t cost anything extra and ultimately contribute to an environment that’s more functional, durable, and pleasing for everyone.

“There are things we can do as architects to make an environment more readable. And I find that very often, if you do that, you make an environment that’s more easily engaged by everybody,” says Mikiten. “If you’re making something that helps someone that’s blind get around more easily, it’s probably going to read better to a sighted person as well, and be more cognitively clear to somebody with a developmental disability.”

The dynamic here runs parallel to the wider politics of intersectional diversity and inclusion: The perspectives and needs of those assumed to be furthest from an arbitrarily defined “mainstream” hold the keys to unlocking a better and more humane world for all people. It’s up to architects to unlock this door—and to ensure the widest possible spectrum of humanity can go through it.

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