

Inclusive Design

📅 Thu, 12/3 10:36AM ⌚ 55:30

SUMMARY KEYWORDS

people, architects, design, space, building, blind, experience, deaf, create, environment, chris, cooper hewitt, sidewalk, world, aesthetics, cane, designed, handrail, visual, stairs

SPEAKERS

Hansel Bauman, Caroline Baumann, Chris Downey



Caroline Baumann 00:07

Good morning, everyone. And thank you for being here. This morning, I had a cup of coffee, listening to the beautiful sound of the river here and ask them and especially inspiring talk came back to me from earlier this week. And that was the talk given by Laurie Santos about embracing our moments in the day and really savoring our experiences to result in more satisfaction in our daily lives. So I just want to take this moment to say how much First of all, I appreciate all of you being here. But I'm also deeply honored to be sharing the stage with Chris and Han. So just really wanted to open with that communication. first slide, please. introducing you to Cooper Hewitt. Cooper Hewitt is Smithsonian Design Museum located at 98th and Fifth Avenue, right on museum mile. And just so that I have an idea how many of you in the room have experienced the Cooper Hewitt? Wonderful, good? Well, I hope all hands go up in just a few months. We are located in Andrew Carnegie's original home, which was built in 1899. And our mission is to educate, inspire, and empower people through design. One of our major goals is to reflect the communities we serve, ensuring that all individuals have access to the museum's campus, our exhibitions, and our online resources. We strive for people of all ages to be design literate, and understand the power of design to change lives. We believe strongly in the creativity of all people. So we work hard every day to embed inclusivity into everything we do. And we are adamant that the only way forward is to design for a person's ability, their capacity, not their disability. Three weeks ago, we announced the 20th class of the National Design Award winners first launched at the White House in the year 2000. The awards honor excellence, innovation and lasting achievements in

American design. And amongst these honorees is Patti Moore, known as the mother of empathetic design. In the 1970s, as the only female designer in Raymond Loewy studio, more dressed up as an octogenarian simulating sensory experiences common with aging. For example, She plugged her ears to distort her hearing, she taped her joints to mimic arthritis. She used canes, walkers in a wheelchair to experience navigating spaces and urban environments with limited mobility. Then, she shared her experience with the field advocating for a kind of design that considers everyone fostering well being and embracing the breadth of human diversity. It is in this spirit of design that we speak from today, considering the built environment and the designers working to create spaces informed by the range of human beings who inhabit them. Last year, Cooper Hewitt presented an exhibition entitled this the senses design beyond vision, which examined how multi sensory design amplifies everyone's ability to receive information, explore the world, satisfy essential needs and experience joy and wonder. The exhibition, centralised philosophies and practices of inclusive design, an embracing of human differences, our fundamental understanding that sensory differences are fundamental and evolve through one's lifetime. This realm of design reflects the design practice driven by questions of equity and well being between people and the objects, experiences and spaces they interact with. And both of our panelists today were included in that exhibition. Console. Baumann, not Bowman, we found that very funny that we were Baumann and Bowman. hanzel is the campus architect for Gallaudet University, the nation's only liberal arts university designed for deaf and hard of hearing students. He is the creator of the Deaf space guidelines. These sensory design principles record what he has learned from the Deaf communities long held tradition of cultural customization. Daily acts of modifying the hearing centered environment to meet Deaf ways of being. The guidelines have been applied to projects on the college campus and other public institutions internationally. Principles include providing ample space for people to communicate visually, offering open views and visible destinations, and using light color materials and reflective surfaces to enhance Wayfinding. Honza is the recipient of the International Association of universal designs 2015 Gold Award for the Deaf space design guide, a catalogue of over 100 architectural patterns attuned to deaf linguistic, cognitive and cultural ways of being. The guidelines were featured in the census exhibition at Cooper Hewitt. In addition to publications such as Metropolis and the economist, architect, Chris Downey, became blind after surgery for a brain tumor. Chris, who continues to practice architecture consulted with Mark Caballero associates and are up to design a new facility for San Francisco's Lighthouse for the Blind and Visually Impaired. Chris specializes in Universal Design for projects specifically for the blind and low vision community, including rehabilitation centres, eye clinics, and schools for the blind. He also consults on projects that are critical yet challenging, such as cultural spaces and transit facilities. In the census exhibition, Chris's work was displayed through tactile drawings, handrail models, stair treads, and an audio visual spatial model, which reveal the process of creating architecture for non visual

experience. So Chris, we're gonna kick it off with you. And I'm recalling a wonderful conversation that we had earlier in the week, where you were describing a tree outside your home that had grown over the years, and that you were, you were feeling that the tree had grown, and you weren't having that experience, only from the sound of the rustling leaves. Can you talk a little bit about that, as well as talking about the outside that you've learned since losing your vision.



Chris Downey 07:31

So thank you, base for this opportunity. And thanks for everybody, for being here. It's a pleasure to be here at the Aspen Ideas Festival. So yeah, that that experience was really quite stunning, for a number of reasons, it was sort of a marking of time, by something I could experience physically in the environment, but really, specifically towards the the blind experience when approaching my house, then coming down the sidewalk. I, for the first time, I could seal spatially seal, that the tree that had been planted at the curbside, when we moved into the house, that actually grown up to the extent that it had a canopy that went over the sidewalk. And, and I could actually, first I heard it, I could hear the sound change as I, as the tapping sound of my king went underneath the canopy of the tree. But I also have felt the space compress, I could feel the the ceiling which went from the sky, to this the canopy of the tree just overhead, I could feel that space compress, which was it was startling that it happened that day, sort of noticing it that day for the first time, you know, as a spring and but there's also sort of just just the ability to perceive it and to appreciate it and to sort of perceive the world in different ways in which, quite frankly, that's what I've been experiencing from if back to this idea of outside. So those are what I refer to as insights that I gained since losing my sight of different ways of appreciating experiencing and engaging in the world around us. And it was actually through this process, a process called orientation and mobility training, when I first lost my sight that the trainers is all about learning how to use a long white cane problem solving, developing non visual non non sight ways of perceiving the environment so that you can understand the environment move around through it and things and, and all of that is sort of tends to be accidental or circumstantial. And but through that I started applying sort of the design thinking that I had as a experienced architect and all the years and training experience. I've had imagining things, those berries phenomenas as very sensory experiences, rather than them being accidental, or certain things of circumstance, to really start thinking about them intentionally and using them as part of the design strategies, things that we typically do visual methods and through visual strategies to find same days for all the different senses. And through that I started, one of the outsides primary outside says, is that, you know, with sight, I kind of designed to sight and then go beyond that didn't really seek sufficiently beyond that, to engage all the senses, which is really the sort of the relevancy of, or the difference of architecture is that full human

experience of the body in space?



10:51

Thank you.



Caroline Baumann 10:52

We've spoken a lot about finding joy and delight in space. And going beyond what a space looks like, can you both hands on, maybe you can kick us off? Talk about your experience as a hearing person working on this Deaf space? And speak also about that collaboration between the deaf community and the hearing designers? And how did that go?



Hansel Bauman 11:17

Wow. So nice to be here. I just first call out I've got a lot of family in the in the audience was always a little nerve wracking. But the I have to say what is incredible. First of all, I think it's really wonderful to present with Chris, because I think we come at this idea of inclusivity in both radically different ways. And then also, there's so much similarity in that difference. For me, I first engaged the deaf community is as an outsider, clearly, I'm hearing architect in a workshop to help a group of deaf people define what it is, in architectural terms to create buildings that reflect unique ways of being when you don't have or you have a different sensory way of being in the world, which is largely this, right? What's happening back here is much is perceived in a much different way that we all take full advantage advantage of or, or take for just kind of everyday experience that we know the world 360 degrees. Deaf people also know that we're on 360 degrees, but it's really through visual cues that we take as auditory cues. So it's a radically different kind of experience that we can't see it. So none of us really, I think it's rare for us to really know that it even exists. So as a hearing person to come into this world, it was first very startling to understand that this is the case. And what to me, what was most striking on the first day that I worked with them was this idea of talking about building needs typically an architect to go in and interview clients or users and try to get what do you need? What do you want the building the bait? They were the first client I've had in 20 years to where they started with emotion, impact. I mean, very emotional, we took a tour of the campus. And it was tears the entire two hours of that tour. Deaf people were talking again and again about how all of the ways that the building environment did not set them did not support their way of being. This is Gallaudet University. Okay. Now, that university is the only university in the world dedicated to the education deaf people through American Sign

Language. So it's their Mecca, and it couldn't sit who they were. The so right. In that moment, I'm hoping, you know, I've heard a lot of psychologists and neurologist talked about emotions here, Ideas Festival, profound insight into who we are in emotions. But what I saw there was an incredibly raw experience between space and motion. So that's that sort of, in a way, an outside connection to what's really impacting people inside. And I think it was that profound experience. They're starting design from emotion. They're not starting from function, or how it even sets, they're starting with that everyday experience of how the space makes them feel. So we've tried to create processes that start internal, in a way it's sort of like Chris, you're outside. For us, we think about we want to turn design inside out. Right now architects practice outside in world, we think about buildings as these beautiful objects that occasionally people happen to go in inside now of them. They happen to use them, but we think about them from the top down in the desk world. You understand the world from inside out. So how do we slip that kind of paradigm of how we're thinking about design? That's really I think, when on trying to connect with that's what I've been been inspired by the deaf community through through my work with them.



Caroline Baumann 15:05

I think about both of your strides your accomplishments in creating inclusive space. And then I'm frustrated immediately when I think about compliance, right, and ADA, how can we sort of explode that and introduce innovation for inclusive spaces worldwide? What can we do together to make people aware of how essential This is?



Chris Downey 15:31

If I could, yeah, the sort of code compliance or the accessibility regulations, that oftentimes what I experienced in the architectural profession before I lost my sight, is that that was almost like the pinnacle of what to do, as opposed to what I immediately experienced within the disability community of it was a good place to start. So the starting point was the ending point for the other side in pain, quite frankly, for those creating the environments, swinging back to what panto was just say, yeah, is like a very different point of departure for the work. So, but there, there's so many more things that we can do, in through through creativity. I think oftentimes, architects, designers think of the code as a limiting factor, something that restricts your creativity is rules against what you would otherwise choose to do. Whereas I think a more appropriate approach is just accepting that like all the other criteria that goes into the formation of space, or whatever, whatever it is, you're designing, and in within it, if you know it, if you understand it, if you get it if you understand not just what the words are saying. But the space between the words, between the lines, is there's a lot of room for a really fabulous creative work, if you just engage it in a different way, but also through a full understanding of

getting outside of yourself, design your thinking past their own experience, and trying to really address specifically, the users of that space, and the particular needs of those those users. Yeah,

H

Hansel Bauman 17:12

I guess I'd build on that completely agree, Chris. For me, compliance is a death knell of architecture. Unfortunately, we have to create I mean, think Ada took us miles down the road and gave us a target of minimum standards to me. But what it also did is it further this idea I think of, of how we live in modern society as a kind of disconnected society. Standards allow us as architects to take shortcuts to a solution, they don't encourage us to engage and think more deeply about how about the work they do. And what they further do, that I think people don't really see this very often is by not allowing users to understand from their own point of view, how they occupy the space, and how that they're, you know, how their experience, they become aware. So the process is a two way street inclusive design. And we rarely talk about that fact, in architecture. For us, we want to give over the process to the user, because that's where the wisdom is coming from the work that we do at Gallaudet, what we begin to do is create research projects where it's the user that's designing those research projects, they're the ones who are figuring out how the environments working for them or not, and creating ways to document that. And through that process, they're empowered, and get to know what's working or what's not working, their awareness is growing. So this isn't only about us as designers, but it's about creating a whole community of people that have expanded awareness around what design is, and its capability to create. First of all, you know, just personal identity, cultural agency, all of those things that build community are embedded in that process. You know, you think about it, how you build a building shelter, that's one of the most fundamental aspects of human existence, right. And we hand it over to architects and builders, and, you know, it's all this disconnected process, and then the standards just enable us to disconnect even more. So I argue that we should be redesigning the whole idea of compliance, go from compliance to inspiration, because I think that's when you're going to start building zone value that really even has, I would say, arguable, monetary value,

C

Caroline Baumann 19:32

and redesigning the curriculum architecture and design, copy diversity. That's right. Yeah, that's really, really key and it's happening

o

19:39

Little by little,



19:40

which is encouraging. Maybe it's happening.



Hansel Bauman 19:43

But it's it's discouraging, how slowly it's happening, or just how unaware students are. I'll just quickly say we partnered with Yale University recently with our graduate school students and model the program. Were our deaf students were clients, Yale students or architects, Yale students, and their first experience on campus, we brought them in a room, no interpreters, and they were immersed in sign language. They were in the most uncomfortable group of privileged people I've ever seen in my life. And by the end of that semester, they were literally presenting in tears. Again, there's something very emotional about the embodiment that happens in the death experience.



20:29

Their



Hansel Bauman 20:30

their tears were about the fact we never thought about this. It never occurred to us that we that other that the highest standards is human experience in this way.



Caroline Baumann 20:42

So I think, absolutely, that's where we need to start. And I would say, you know, start even earlier, if you only have a wonderful junior high in high school program at Cooper Hewitt, where we follow in Patti, more steps. And we've got 10th and 11th graders simulating what it feels like to be 85. And some of these kids that I talked to say, Wow, that was amazing. I had no idea. Right, so I'm really thinking a lot at that level, how can we scale that kind of education nationally to really open people's eyes earlier? Yeah.



21:14

So



Caroline Baumann 21:15

it's fantastic. What about aesthetics? You know, there's this misunderstanding, that accessible design means compromise with aesthetics and what the finished place looks like. Can you both talk about your



Chris Downey 21:30

projects? Yeah, I think that I sort of disagree wholeheartedly with that, rather pervasive attitude. But, you know, there's, again, it goes back to this idea of, of, sort of really understanding, and in grappling with the cause and finding those those areas, those opportunities to be really expressive, to do it in ways that are completely integrated. It's sort of the project that I worked on the Lighthouse for the Blind and Visually Impaired in San Francisco, the strategy was to, to do a face that was very much about sort of a site optional, it wasn't for people with outside is everybody that goes there, you know, for services, they come with a loved one, family, caregiver, you know, partner, whomever, and people that work there, half of which are sighted, half of which are visually impaired. So it's serving the whole public. But it's got to be it's got to work all levels for everyone. And but at the same time, we want those, we want it to be very specific, and very appropriate for that blind experience, or the visually impaired experience, but in a way that is natural, and doesn't stick out like a sore thumb, that doesn't feel overly adapted. And so the goal was to be the chief, something that was heroically normal, that you would walk through and like, I don't get it, but then the blind people are like, this place is cool. This is awesome. This is really it's like get people that were after it was built, you know, there are two experiences from the blind community there were those saying, Wow, this is just fabulous, how it works, the way it works with acoustics, the the low vision strategies for high contrast and lighting levels, all sorts of things and sort of a logical layout of things. And then I cited friends that were architects like, so what do you do? Part of it was just that this desperate sort of experience of, of not even though knowing what to look for. But I think seeing that in particular the the some some things about you know, there's there's actually a very, very simple string for example of in and they it's federal regulations. There's some requirements in the exterior environment on the California accessibility regulations, their interior requirements for high, high contrast visible strips at the nosing of each stairs started up stair treads, and now in the interior environment, in California, it's the first and last year of each run of stairs. So anytime it changes, direction stops or whatever, but nosing of that first and last stair is has a high visible contrasting strip, so you can see it if you're if you have a low vision condition. You can't you won't necessarily see the nosing of the stair, you can then get the rhythm of the stair but you need to know it's really Critical another first and last one. That's only in the state of California, maybe a couple others thought of federal regulation in the lighthouse, we wanted to do that at every step and do it in an integrated way. I can't tell you how many times you know,

interior designers, architects would resist the notion of putting that high bid high, visible, contrasting strip on the nosings of stairs, like it's gonna mess up their design, right? So you're missing that first step going down the stair is gonna mess up your freakin life. Take your choice. Yeah, yeah. So there's a there's a difference. And quite frankly, it's something that's different in the the blind experience versus the mobility impairment experience. Oftentimes, the mobility impairment, it's like, you can't go there. But you can anticipate it before you get there. And the blind experience a lot of the stuff by the time you figure it out, it's kind of too late. When you're mid fall, it's, you know, it's too late. So it's, those are things that are kind of hard to understand. But if you do it right, I think most people when they were looking at the stairs today at the Lighthouse for the Blind and Visually Impaired, you don't see it look at it say, oh, wow, what a fabulous incorporation, integral incorporation of five visible contrasting strips. It's like, I have so many people that those are awesome stairs. Yeah, so I think it can be done.

H

Hansel Bauman 26:31

Yeah. Um, so we get a lot of like, what have you done here? What's special about this? We did. We did a lot of that as well. But I want to go back to the question, Carolyn, you use the word aesthetics? Right. So I think for me, I always wonder what is aesthetics? You know, aesthetics is an experience, it's a way of being in the world. It's envy as architects who often teach this, it's what a building or a building is an object looks like, I think we're really interested in. And I think this is consistent with what Chris was saying, interested in the building, that is to be in and not to look at, and I, they the this sort of obsession of the of what objects look like, rather than what they feel like, or what the experience of being in a building is. That to me is the MIS direction of our profession right now. I, interestingly enough, I would say, to give you an example of what I think a deaf space might look like, nicely done, you're sitting in it, the room that we're in now has a number of really kind of very simple, amazing things that happen, the high strip of windows, bringing in the natural light, without back lighting. So you know, one of the big things in the in the deaf community has a lot to do with eyestrain, because so much of your world you're managing visually, and you're concentrating on visual sign language at the same time. So imagine, the eye has four wheel view to one thing that's happening here. Meanwhile, we're scanning the environment, whatever you can do to kind of minimize that visual noise in the building. So it's a perceptually, calm kind of space is a goal, right? But that doesn't mean that we're talking about a dead environment. That the kind of architectural exuberance that can come from ways of bringing in natural light is extraordinary. That's like foundational to what buildings are. So why or the shape of buildings, the shape of this ceiling has everything to do with shaping acoustics. Well, what's not, there's nothing more important to deaf people, ironically, than the acoustics of a space. Because just in a similar way, I think in wine community, there's all kinds of various ways to be levels of

hearing in the deaf community. So any kind of background noise, such as air conditioning, all that kind of those mechanical systems that keep these buildings comfortable, create background noise, that background noise will confuse any kind of signal of what's being said. So, look how quiet This room is. Rarely do you see a rare, do you rarely Are you in a room where there's not some hum of a piece of equipment going. So we're really interested in then beyond the death experience? What's that doing just to your kind of central nervous system to have that kind of background? And, you know, so we're really looking a lot of that. So I would argue, again, this goes back to the inside out approach that that's how we should be thinking about aesthetics rather than necessarily the building looks like.

C

Chris Downey 29:40

Yeah, in fact, not only a couple of sites, sort of back to this to that to the fear of the Lighthouse for the Blind and Visually Impaired. The eye in the idea of assessment, you know, as a as an architect, we lost lost my sight. Yeah, I've just been really curious about that. And I would think back to The principles of architecture by vitruvius of firmness commodity and blight, Fern missing commodity that's sort of a shared expertise from whatever perspective you're coming from. But when it came down to the light, like, what's the light if you can't see it in terms of the way we typically think about the light or aesthetics, on a on a sort of superficial level, but also just on the deeper level? What, where does that delight come from, if you can't see that environment that's been designed for you. And so back at the stare at a lighthouse, the idea there was four, in this case, the handrail the handrails is the place where you know, people are going to touch the building is like, if a lot of people think if you're blind, you go around feeling the walls everywhere you go. Now, especially in a subway, it was going on. At the Lighthouse for the Blind, we had these zinc plates for Braille presses, and I suggested that we use the zinc plates, we want to use them. So we're in the building, I suggest that we use it with the toilet partitions, so we could add an accessible bricky bathrooms and revise it Oh, that's gross, we don't touch that. So I know you only go around touching the walls, but there are things that that we know people are gonna touch, you're gonna grab a doorknob, they're gonna lean up against a reception desk, or if there's, if there's a balcony, you're gonna lean up against the edge. And it's so you can think of it How does your arm rest on that edge? Or if you nestled up against it, to lean on it or nest against it somehow? What does that feel like? How does it How does the building receives the body. And in the case of the Hanwell handrail, we knew people would would grab it, and I had remembered being at the Rockefeller estate in New York, and I went down to the gallery down below and crapped the handrail, I don't stop me in my, in my tracks, like, Wow, that's cool handrail, the way it fit the hand, and I had somebody photograph it. So we started doing the, the project for the lighthouse. When it came down for the handrail, the architects were doing

their usual thing, and I was like, No, we're gonna, we're gonna explore this back to this thing of going beyond code, got in really dug into the codes, find out what find all the latitude, all the freedom, all the possibilities, all about creating this this moment, so that as soon as you grab that handrail, it would fit your hand, really in a surprising but delightful way that convey that sense of care, that sense of generosity. And, and this sort of reaching out to, to share that sense of aesthetic to everyone, regardless of your ability, that it kind of a second thought about something else, but I thought I'd lost it.



Caroline Baumann 32:47

Well, I'll continue that thought thinking about our sensory differences as human beings and how our needs intersect. I think the majority of the time these design decisions, do aid everyone, but can you talk about when there might be a challenge or where to light for someone is then not helpful for somebody else with a different ability? That's something we're thinking about as we're making efforts at Cooper Hewitt to make the space accessible for all. What does that mean? What does that look like? How do we talk to those different audiences to really make the right decisions,



Hansel Bauman 33:25

I would say, the one kind of that we're wrestling with very directly right now going that has to do with how the navigation of space in the world so much of its interesting or culturally self identifies as a as a collectivist culture, this idea of coming together, being together, making decisions together is is key to daily life, right. So you're always, there's this thing called Deaf time, which, as a hearing person will say is very annoying. People come together, get together and cannot stop chatting. There's just so much social connection. It's so strong, it's really wonderful. But you know, it could be hours after a party's over, people are still chatting. But what that means in the built environment as you have, you want a flexible environment that's going to support variations of different sizes of groups coming together, setting adjusting chairs, so that there's always visual connection. That means you have an unpredictable room. You know, if you go there in the morning, that room is not going to be like that, two hours later, right. So I think as we work through a lot of this with our deaf students, we also have a lot of the deaf blind or blind, low vision people who that becomes all of them not able to navigate that same space from memory again. So we've actually done a map of our campus looking at interior and exterior spaces, and designated predictable or unpredictable spaces. So we'll have and using different kind of memorable Float floor textures, colors, and materials will identify and separate those two. So the softer spaces are the unprintable social spaces. And then circulation spaces and public gathering areas are largely the the, the the predictable spaces. So in that we're trying to create, I think we're bringing two different points of view

together in a coherent way that's kind of addressing environment for different needs. And interestingly enough, that Wayfinding system now becomes very, very useful. So both deaf and low vision that there's there to these cues that are out the entire campus that allow people to not only predict where they're going, but kind of keep them kind of knowing of the space that you're in.



Chris Downey 35:46

I appreciate you pointing out to sort of what what works sometimes in the community. And the idea of, there's always the joke, you know, about how to irritate a blind person at home was rearranging the furniture during the day, right. And so it's that sense of predictability is quite surprising, and can be frustrating. But there there you do need to find that way of accommodating both. And it's something that that I have, we deal with a lot and in sort of dealing with some particular needs for the blind or visually impaired, things like it started with the hazardous warning strips of trunk and truncated domes, the bumpy things and curb ramps, we're crossing the street for mobility, people with mobility impairments, you know, one of the fundamental strategies was to let people cross the street, getting down off the curb if you're in a wheelchair, or another type of mobility device. But as soon as that was done, then you created situations where often there be a really smooth, blended transition. If you're a blind and you didn't happen to hit the curb, you went straight for the curb ramp. And it didn't sense the the changes. You couldn't tell the defendant that type of cane you use, but you can feel the difference between asphalt and, and concrete. But sometimes it's the same material. Sometimes you're, you're not necessarily paying attention to it because you're doing something else. And it might be three swipes of your cane before you realize, Oh, that feels like asphalt. Am I crossing a driveway? Or am I on the street? And that's happened to be in downtown San Francisco. It's pretty exciting when the confirmation of that question comes in the in the form of a horn. But so the strategy just to wrap it to address that issue was putting in these developing these high visible and contrasting? Well, the truncated domes or hazardous warning strips. And but the problem with that was that, yes, they were discernible for people with canes, they sound very distinct, there's no mistaking it, I haven't found anything else that sounds like it when you're. So you get haptic feedback, you get audible feedback. And it's also designed in a rather rather extreme profile. So that if you're, if you don't use a cane, use a guide dog, you can feel that underfoot, the dog doesn't necessarily know to stop there. So so it's doing multiple things. But on the negative side, the that that profile poses all sorts of problems for people with mobility impairments, especially those with spinal cord injuries using wheelchairs, typically motorized wheelchairs, and rolling over at creates a vibration that since can often send severe pain through their spine. So here's this, here's this thing done for people. And with that kind of mobility impairment, and all sudden, we need to introduce this tactile experience within it, which is detrimental

to them. So there is a compromise of like, the limitations of how much of that to use where they use it sits strictly in those zones and creating a profile that works as good as possible for the passage, the smooth passage of people using wheelchairs and other mobility devices. So all that's great, and it's sort of a compromise come to that, that happy zones where things are reasonably harmonized. And then people start forgetting, you know, for potentially good reason, carry a well thought out good intentions, using that same device elsewhere to indicate a hazardous area or to use it to create a tactical guide strip. So that you know, you can follow that to find your way out of a subway or through the sidewalks or whatever. But then it's taking that thing that was offered a second set a very profile that was a compromise in this specific location. It breaks really quickly. For the safety of people that are blind, to then take it and use it in an expanded environment running throughout space, that is Zen is that taking that compromised zone and throwing it all over the environment? where it becomes confusing if you're blind if you had the same kind of tactile experience inaudible experience? What does it mean? Your first thought is, okay, I'm crossing into the street. No, not what's going on here. So there's, this starts to become ambiguous. And then you have this contract this this challenge, are this compromised, extended throughout the environment, creating not just hazardous, or painful experiences for people with spinal cord injuries, but also people walking with walkers. And there's all sorts of anecdotal evidence of walkers tipping over as they hit them. Then people went, you know, they're elderly, or frail, falling on the ground into the street or in a public area, causing injury. So it's not just in any way they can get wet and slippery. Anybody can propose things. So why would we choose to run that all over the place. So at the transbay Transit Center in San Francisco, and this now the Salesforce transit center, developed with a integrated system that had tactile lines that were perceptible through the touch of a cane, that you could take the links of the platform is a four block long bus platform. So you follow that line up and down the length of it. But then whenever you crossed a zone, a path that would lead to a stair escalator to go down, there was a sandblasted edge concrete path, that once you could perceive that as you're using your cane, and feel it to move over towards the stairs or escalators. And to come to that, that strategy, we had large mock ups, that we could convene user group studies of people with all different types of disabilities, mobile mobility devices, all of which people using canes for navigation and guide dogs, all of which define exercise in groups that were sufficient to communicate the necessary information for the blind, visually impaired, but not not create negative impacts for other users. So is that that actual experience of getting all the different needs together to come to that harmonized position of that strategy?



Caroline Baumann 42:39

I'd love to hear more about that thing, but I am getting the poster and I do want to open up to the audience for your questions. We have a few more minutes



42:53

It was a pretty amazing example of architecture, right outside guests didn't really talk about the outdoor environment. What what could be done, say like an Anderson Park, make it easier to visualize



Chris Downey 43:13

I'm not familiar with Anderson Park, perhaps I walked through it the note which is you know, it's really calls out the sort of the, the challenge of one of the primary challenges to the blind or visually impaired is access to information. It's sort of messaging and how you do that and, and there's all sorts of sometimes it's something just good, interesting and good to know and other things that are critical about but the



43:50

clash



Chris Downey 43:52

I might take some description. I'm gonna try but they're, they're like might come up with somebody



Hansel Bauman 43:58

Yeah, it's so this is the part to pass through between the side of campus the other way. So buyer designing that and it's, it's, it's beautifully kind of molded, it's almost a lunar landscape like a very formal a very perfectly round mammal. And there there's nicely formed kind of very narrow strips of strips of the water moving from upon coupon. But the idea my cousin Becky shared with me my first day here was the the concept of the design is that it mimicked was a Twin Lakes that are nearby. There's there's moments that the pathway we cross kind of crosses over those ponds



44:39

as you go



Hansel Bauman 44:40

through but there's these amazing things of NASL there's actually a sign for him to choose. It's there's there's these kind of landforms that dip down almost like a cereal bowl, and perfectly formed bowls. So it's the negative of the mound. You know, they sort of side by side. But what which, that's this manicured landscape and just happy on that it's the rest kind of Colorado like a, you know, a kind of a natural foilage. And then, you know, in the background, obviously, aspen trees play really beautiful rolling in backdrop as the kind of grows that surrounds this manicured landscape. Um, but



45:22

yeah, it helped. So that's



Chris Downey 45:26

there's a, sort of the one of the, there's a strengths in a fault a detriment to site. One is that site, you get a lot of information over distance, you don't have to be there, it's like to read Braille, you got to be able to touch it. Yeah. And you don't have to do that with visual signage. The detriment to that is that of all your senses, sight is about as detached as they come. It's about is non physical, non physical, that then you know, it's just not as if it's physically impactful. But without it, it's like, how do you gain that information. So you can hear, you might be able to hear sort of the the nature of that space around you, you might be able to hear that there's like a grove of bass, the forest of evidence is often the distance and as the backdrop to this Glade, or feel that you're at, but it's where you actually be think of a project I worked on, that had a living skills courtyard on the second floor of a building, and half the building a half that courtyard was hard surface where you could sit and have lunch, have a conversation. And the other half was the green roof from on top of the building brought down into the, into the courtyard for the hall, that whole depth of that courtyard. And I address that, you know, that's unfortunate for building for the blind and visually impaired, that all the landscape is over there. Yeah. Right. And you can't get to, and, and you're stuck over here and on the server. So you know, we came up with a strategy to actually take you there taking into that environment. So passing by something isn't as obviously not as impactful as actually getting into it. And



Hansel Bauman 47:24

I guess just real quickly, I see there's no question. But I just want to say, from a from a desk perspective, the thing that struck me most immediately, actually, about that park is the passage through there, the volume of people, if you had a pair of deaf people having a conversation walking side by side, you couldn't have that conversation and have the

volume of people that you would always people would be kind of off to the side as you go. One of the things similar to the on sidewalks, I'll just say quickly, one of the big life safety issues and in the death world is this idea of the distance of a public sidewalk, by and large does not allow the space for visual language to take place. And it especially if it's a populated sidewalk, because you know, two seats, language has space, right ASL is, it's got a roughly, you know, my hand space in front of me is the signing space, you put two of the checks there in the white need to see it, you stand back. And different people need to have different points of view, that throws off that doubled the size of public right of ways, for instance, so that's a big one. I will just say super quick, it's interesting Chris's comment about that landscape because, in fact, it was designed to observe it's not designed to be in right you know, many people go and crawl over the ideas, sign there's a nice big ideas, sculpture.



48:49

But beyond that,



Hansel Bauman 48:49

it really is you're literally walking through a picture but to be invited into these Wonderland forms, somehow it just doesn't happen. So I think this idea of of tactically being able to do landscape would be a good idea.



Caroline Baumann 49:05

And hands on I were already saying that we're going to Christmas later today so that he can feel the balls and feel the indentation of the layout to better understand the topography of the earth. So we're gonna do that



49:20

where one question sorry, we



49:22

had there



49:24

I ran out there down those mountains all the time with my grandson. I don't know why you can't just claim them. I didn't know there were four visual only But anyway, what Chris, what do you think of those red lumpy things? Legos, rubber, things of that sidewalk to the streets, downtown Aspen and also the chirping on the couple walk lights we have? Are they good for somebody that's visually impaired, or are they confusing? Now the

C

Chris Downey 49:51

first the the bumpy things. That's basically what I was talking about what the hazards warning strips, They're very, very helpful, useful and do a lot of things, however, that I, I still wouldn't build a new product that would achieve this and yet not not create the the competent challenges for others. And so it will be safer for everyone. So I think there's remains a challenge there. But until then, another suitable product comes up, I don't know what else I don't have another solution. In terms of the Ottawa pedestrian signals, I'm less a fan of the of the chirp of the chirping audible signals. It can be useful if you know it, basically, most jurisdictions will have a standard about North South crossings being a cuckoo and the East West crossings being a chirp. And so you can pay attention to that and have some orientation to it. But the the optimal pedestrian signals that I'm most fond of are, are a new form that typically don't have a chapter purse. But that's an option is more of more of a tick. But what's notable about it is it's it's a tick that comes from the actual push button where you push it, and if we have time to dive into the nuances of it.



51:18

By its ticking,

C

Chris Downey 51:18

it takes slowly when it's not time to cross. But that helps you find crosswalk. If you're blind. How do you know where the crosswalk is, especially if it's a mid block crossing, are supposed to find that. So having that slow tick helps you to spatialize it. So you can actually go right to that crosswalk. And they're they're mounted on a faceplate. The faceplate is oriented so that the sun that faceplate pushes you puts you in, in the crosswalk. So you can put your forearm on the faceplate, and you're pointing across the crosswalk. If it's in when your death point, you feel the hat, you get the haptic feedback, it's time to cross so you know where to go. And if you're blind, but happened to be effectively Deaf because there's a jackhammer going off just to see, you know, down the block, you can see it you can stop and feel that. And so there's there's an awful lot that

goes into that little signal that is really simple, but incredibly effective.



52:30

So those things I'm a



52:31

huge fan



52:41

of you found to be effective approach to ensuring an empathy for a diversity of abilities amongst the various stakeholders that are involved in the design of a project.



52:54

I would what we do



Hansel Bauman 52:56

in our work is



53:00

we don't have enough time to



Hansel Bauman 53:01

answer that question. In full in all of its dimensions, but I will obviously it's his participation. We we design our when we hire architects, we've completely changed how we



53:21

And the first four sessions,



Hansel Bauman 53:24

week after week, and those sessions will be trained training sessions or sessions essentially, are architects with deaf students, without interpreters and give them an assistant to spend the whole day designing a building together. And so it's really about getting that close personal interaction. Regardless, I mean, that's just that the methodology you could use, regardless who the stakeholder is, but it's really about deep personal interaction. And I do think there's something about the educate how we educate. So it's going back to the basic education. And again, just speaking in the realm of archives. We don't teach people curiosity, like genuine curiosity, around being in that awkward space of being with people who are different than yourself is. So I think there's a whole almost interpersonal Sort of awareness that needs to take place as part of how we educate, certainly architects, problem solvers, planners, whoever's out there, but I think those are fundamental interpersonal skills. is where it starts. If I can just throw the



Chris Downey 54:34

quiz it's all getting passed. The idea of just having a quick user group study to confirm to go to check out To say, okay, we've done this this isn't we're good or bad



54:45

input after the



Chris Downey 54:45

project has been designed. So quite frankly, the more we can engage people within the process, ultimately, I think as an architect, we have enough people with disabilities. In the profession of architecture, so the more we can infiltrate the more we can be embedded in within the process then We can have really that true creative, engaged and wellness and next through that educating the architects we work side by side when we're in school with but also to to carry that further into the work. We do need



Caroline Baumann 55:20

to wrap up. Thank you all for believing in an inclusive future.