





[ *farsighted* ]

With a dazzling new headquarters and a \$125 million bequest, San Francisco's LightHouse for the Blind is creating new ways of seeing for people around the world.

**By Joanne Furio**

# T

**TAP, TAP, TAP.** Chris Downey, wearing the suit-and-sneakers uniform of an architect and carrying the cane of a blind person, crosses Howard Street during morning rush hour, trailed by an audio engineer with a boom mic. Once on the sidewalk, Downey taps his cane on the concrete, and that sound is also recorded. He heads over to his favorite Mission Street coffee shop, where he taps his cane on the tile floor, and then into the offices of the multidisciplinary design firm Arup, where his cane taps on bamboo flooring. All of these sounds are recorded.

Six months later, Arup's engineers play the recorded taps to board members of the San Francisco-based organization the LightHouse for the Blind and Visually Impaired. They've inputted the sounds into a program that allows the board members, sitting in a darkened acoustic lab, to hear the taps as if they had been recorded in rooms whose surfaces reflect or absorb sound to varying degrees. An engineer touches a computer keyboard, and the listeners hear a distinct sound: the tap, tap, tap of a cane striking the polished concrete floor in Arup's lobby, in which the wall and ceiling materials are 50 percent sound-absorbing. The engineer touches the keyboard again, transforming the concrete floor into a tile one, and the sound intensifies, its tone more insistent. Changing just a single element in the simulator turns a pleasant sound into a jarring one.

The man who was recorded tapping his way across town, Downey, is the LightHouse's chairman of the board—and one of the few practicing blind architects in the world. He and the other board members listen to 12 combinations of floor and wall materials just for the LightHouse lobby, mulling them over for several hours before deciding which tapping sound they like best. The painstaking process is just one example of the meticulous attention that has gone into every step of a unique project: the creation of new state-of-the-art headquarters for an organization that's trying to dramatically improve the lives of blind people.

The LightHouse for the Blind, founded in 1902, is the oldest and largest agency in Northern California providing training, information, and advocacy for blind and visually impaired people—and one of the largest in the country, serving 3,000 people a year. The LightHouse has long been considered by disability advocates to be in the vanguard of the field, but a perfect storm of circumstances has taken it to another level. For one, it has a charismatic and hard-charging chief executive officer, Bryan Bashin—who is blind. That fact is a big part of what sets him and the LightHouse apart, says Mark Riccobono, president of the National Federation of the Blind. "Believe

me," he says, "an agency serving the blind that is headed by a blind person, with high expectations for blind people and a consumer-focused approach, is still very much unique in the blindness space."

Bashin's core philosophy, says Riccobono, is that blind people are not second-class citizens and should be treated as equals, not needy wards. To further that goal, the new CEO is mobilizing the Bay Area's unparalleled pool of technological, engineering, and design talent to work on innovations for the blind. And he has the money to do it: A complete stranger to the organization, Donald Sirkin, just left the LightHouse a staggering \$125 million bequest. (See sidebar at right.) As a result, the LightHouse is poised to become a beacon that could illuminate the lives of not just blind people but everyone.

#### CHRIS DOWNEY

One of the world's few blind architects, Downey is collaborating on the new LightHouse for the Blind headquarters with star San Francisco architect Mark Cavagnero.



**N**EAR THE ENTRANCE of the LightHouse's soon-to-be-abandoned headquarters on Van Ness Avenue is an inscription in large letters: "Yes, we're the blind leading the blind, and proud of it." Upstairs, CEO Bashin is in his office, engaged in what he calls reading his emails. His head is lowered, his body stilled in concentration as a robotic voice, sounding like those disclaimers at the end of radio commercials, speed-reads his messages at 500 words a minute. Bashin has trained himself in this speed-listening technique to save time.

The 60-year-old Bashin is the driving force behind the LightHouse's new headquarters and the organization's growing partnership with some of the biggest Bay Area tech firms. He's also a personal inspiration. The LightHouse's official mission is to promote equality and self-reliance; its unofficial mission—which helps make the official one possible—is to provide blind role models, of which Bashin is a glowing example. With his 6-foot-1-inch frame, sonorous voice, and thoughtful diction, he comes across as a natural leader and executive who just happens to be blind. Downey describes him as "my Yoda."

But Bashin was not always the confident, poised, self-accepting man that he is today. For much of his life, he was in deep denial about his condition—a rare autoimmune disorder of the eye that manifested at age 12. (Like many others who have lost their sight, he believes that a focus on the cause of one's blindness—a "largely irrelevant" factor—is detrimental to becoming empowered and competitive.) "I was in the closet about my blindness until I was 38," Bashin says. He uses the term the way gay people do, he explains, to mean "someone who is minimizing or hiding, not coming out, not working in the ways that he needs to in order to be effective."

During his teen years, Bashin's vision wavered between 20/100 and 20/200, classified as low vision. By the time he was a sophomore at Berkeley, he was legally blind, but he pretended that he still had low vision. "I certainly would never have said the 'B word,'" he says. "I would call myself 'low vision,' 'visually impaired.' I would always try to position myself to best advantage with light and with contrast, avoid situations where I didn't think I'd be able to see that well—generally limit my life unnecessarily." He worked in TV and print journalism for 15 years, mostly as a science writer, using magnifiers, giant computer screens, recorders, handheld telescopes, and powerful flashlights to function. If he had been willing to use a cane, he could have gone home from work at any time; instead, he had to constantly plan how to get home before the sun went down.

Bashin finally began to come to terms with his blindness after having a breakthrough moment at a national convention held by the National Federation of the Blind. "Suddenly I met myself," he says. "I met dozens of people who were professionals and having fun and in control of their own fate, earning good salaries—all things that I didn't know were possible before. I decided that it was time for me to drop the pretense of being sighted."

When he visited a local blindness agency, however, Bashin found dingy offices, a lack of resources, and no connection with positive blind people. He found the connection he was seeking when he met Mike May, a blind businessman and skier who was the subject of the 2007 book *Crashing Through: A True Story of Risk, Adventure, and the Man Who Dared to See*. "He is one of many examples of blind professionals living life on their terms," Bashin says. "Whatever modicum of accomplishments I have, I learned from people like him and other blind role models." Newly empowered, Bashin decided to make helping the blind community his life's work. He quit journalism and became a life coach for blind people, offering a tough-love version of what a sighted life coach does: helping clients strategize and set goals, providing support and career counseling—without assuming that they're going to find their goals inherently difficult. After head-

## The LightHouse's \$125 Million Windfall

Why a mysterious businessman left his fortune to a group he'd never met.

No one at the LightHouse for the Blind and Visually Impaired had ever heard of Donald Sirkin, but when he died in 2014, he left the organization \$125 million. The gift—thought to be the largest single bequest to a blindness advocacy group in American history—is more than 15 times the LightHouse's annual budget. "It was a tremendous vote of confidence," says LightHouse CEO Bryan Bashin.

Sirkin was a Seattle millionaire businessman who lost his vision in his 70s but remained in the closet about his blindness. "He had macular degeneration in the last six to eight years of his life and was probably ashamed of it," says Bashin, "like so many seniors are when they start losing vision." Bashin came to that conclusion after visiting the late Sirkin's Puget Sound residence, which the LightHouse also inherited, to learn more about the mysterious benefactor. In the house Bashin found all sorts of magnifiers, light boxes, and

large plasma-screen TVs—devices that he had used while in denial about his own deteriorating vision.

Sirkin's daughter—who inherited about \$250,000, as did her brother—was not happy about the bequest. Claiming that she had been physically and sexually abused by her father, she sued his estate last May. If she wins, she will get a small percentage of the funds that have been transferred to the LightHouse.

Bashin already has plans for the rest. Some of it will fund the new headquarters (below), currently under construction. Some may be used to create awards and grants for the blind. Blindness training for anyone, regardless of immigration status, and increasing employment opportunities for the blind are also on Bashin's list.

### WHERE THE BLIND LEAD THE BLIND



Renderings of the new LightHouse's sleek kitchen and a common area.

ing the Sacramento Society for the Blind, where he initiated a campaign for bigger and better offices, he became chief executive officer of the LightHouse six years ago.

The 114-year-old organization, which started as a reading room for the blind in a San Francisco library, was in solid shape financially: Under Bashin's able predecessor, Anita Aaron, and earlier leaders, it had accumulated a hefty \$40 million endowment. Its day-to-day operations, which focused on training programs, were unobjectionable, if not particularly sexy.

"Bryan kicked the whole thing into a different mode," says Josh Miele, former LightHouse board president and creative director of LightHouse Labs, a tech incubator cocreated with Bashin. "We had the vision before, we had the motivation before, we had the desire to build a new headquarters. Then Bryan got the top staff position, we got exciting new members of the board, and the Sirkin bequest came like a bolt from the blue. All of a sudden, it was possible for us to make changes very quickly. It's uncanny."

"Bryan came in with a vision about ways things could change—should change," says Kathleen Knox, a former board member who, like half of her board colleagues, is blind. "He just saw gaps in what should be done." Right out of the gate as CEO, Bashin fired the property management company that was running the organization's 311-acre Enchanted Hills Camp in Napa and ramped up its employment program. The changes were a ringing affirmation of a core belief of Bashin and his organization's: that blind people can do for themselves. Enchanted Hills now has a blind executive director, a blind cook, a blind woodworker-master craftsman, and blind counselors. And all of this was accomplished before Bashin found out about the \$125 million Sirkin bequest. That unexpected bonanza made it possible for the LightHouse to set its goals far higher.

**W** **HEN IT OPENS ON MARKET** Street between Seventh and Eighth Streets in June, the LightHouse's \$20 million West Coast Center for Excellence will be the first building of its kind, designed for the blind by the blind and fully operable by the blind. It reflects a decisive break from the old, paternalistic thinking about "helping" blind people, an approach that Bashin calls "adult day care." And it's a premier example of so-called universal design: design that accommodates everybody. Many smartphones, computers, other devices, and apps already feature universal design, and the architectural innovations being pushed by the LightHouse are likely to further the trend.

The project, two years in the making, is the outcome of a unique partnership between architect Mark Cavagnero and architect and board chair Downey, who became blind at age 45, three days after a 2008 operation to remove a brain tumor. Both were easy choices: Downey is a noted architect whose blindness gives him indispensable insight into this project, and Cavagnero's many award-winning projects include the acclaimed SFJazz Center, with its superb acoustics, and the new Diane B. Wilsey Center for Opera, on which he worked with Arup. But the collaboration went beyond the two architects. To give its board members and staff input into the design of the new space, the LightHouse developed three-dimensional drawings: Its floor plans for the 40,000-square-foot building can literally be felt.

The heart of the project lies in its attention to things that sighted people might not even notice but that are crucial to the LightHouse's blind clientele, like building materials that acoustically resonate in exactly the right way. Downey, who learned mobility skills at the LightHouse and was riding a tandem bike to work four months after becoming blind, says that it was only after he lost his sight that he realized how limited his architectural training was. "It's not just

about how it's seen through the eyes, but how it's seen through touch and hearing and all these other experiences," he says. "Architecture should aspire to more than accessibility, especially in the case of the blind. What is delight and beauty if you can't see it? What makes for that enriching, beautiful experience if you're going to experience it with something other than sight? For the blind, of course, that is sound."

Downey began working with the acoustical engineers at Arup four years ago. Typically, such engineers are engaged to muffle sounds—the buzz of heating and air-conditioning units, the cacophony of street life—so the LightHouse project was something new. Shane Myrbeck, a senior acoustics and audiovisual consultant at Arup whose ears are professionally honed, found it revelatory to work with

#### JOSH MIELE

Blinded by an acid attack in childhood, Miele has pioneered devices that have opened vistas for blind people everywhere.



# Lighting the Way

Products codeveloped by LightHouse Labs.

## The Digital Guide Dog

When Toyota's San Jose-based PARTNER ROBOT DIVISION started work on a navigation-and-information device for blind users, it sponsored a study to find out what blind users want—which turned out to be a pretty, neck-worn device that looks like jewelry and doesn't interfere with the mobility methods, like a cane or a guide dog, that they're already using. Assured it was on the right path, the division took a prototype of its "navigation necklace" to LightHouse Labs, where representatives received a lesson on cane use and dined at Opaque, a restaurant that blindfolds eaters to heighten their sensory experience. The device, whose working name is **Blaid**, will

provide detailed 3-D information on elements in the environment. The goal is for it to be functional without GPS, which is not always reliable indoors, or beacons, which have to be installed. It was unveiled in 2015, but a release date has not been announced.

## The Airport Concierge

**INDOO.RS**, the first indoor navigation app that assists the visually challenged in navigating an airport (SFO's Terminal 2), was created in response to a Request for Proposal from the city of San Francisco. Working with LightHouse Labs, an Austria-based team devised a system that steers users to computer plug-in stations, restrooms, gates, and other sites.

## Where's the Matterhorn?

**INTERACTIVE MAPS**, a collaboration between Smith-Kettlewell Eye Research Institute and Touch Graphics, makes use of smart-pen technology. Its BART maps, introduced last year, provide a detailed layout of every BART station and its environs and identify nearby bus stops. Its Disneyland maps are available at the Magic Kingdom's visitors' center.

## News Everybody Can Use

**AGOGO**, a 15-member San Francisco-based startup, produces a curated streaming service for news, entertainment, and sports. Since meeting with LightHouse Labs, the company has begun to

aggregate its podcasts into an accessibility channel.

## Photo Synthesis

**VIZSNAP**, an iPhone app developed by Santa Cruz grad student Dustin Adams, allows blind people to easily organize their photos (yes, they do take photos): It stamps the date, time, and location of shots and permits the user to record notes on images.

## The Pin of Power

**FINGERTIPS LABS** manufactures **OTO**, a voice-activated controller that operates smartphones, tablets, and computers. The round, wearable example of universal design can be worn as a bracelet, necklace, or clip-on pin.

the entry lobby and the three-story open staircase behind it. The lobby was intentionally located on the 10th floor—the middle floor of the three-level offices—with the open staircase behind the receptionist's desk. Consequently, visitors will hear the flurry of activity taking place on all three floors and sense the surrounding vitality and action. "We wanted to convey the idea that this is an exciting place and promote a sense of possibility as opposed to the idea of fear," says Downey. The design works against the perception, common to people new to blindness, that they are simply passive recipients of services.

Carefully thought-out tactile and auditory elements are everywhere. A polished concrete circulation ring will become a textured path on each of the three floors, connecting all the public spaces. Metal strips will designate transitions to other floor surfaces, such as carpeting. The tri-level stair will be wide enough to allow people with seeing eye dogs to pass one another. Solid glass was selected over spindled railings because canes can't get caught in it and objects can't fall through it. Wood stair treads were chosen over steel because steel makes a harsher sound when tapped. Deciding on the perfect material for the handrail—a crucial element because it's touched by every visitor (Downey calls it "the handshake of the building")—took five design iterations with a 3-D model maker at Cavagnero's office. Eventually the group settled on a pipe version that's comfortable to the hand. Even the fabrics in the building were carefully chosen.

"Ninety-five percent of the blind have sight of some sort, which is why we paid a lot of attention to light and contrast and pleasing experience," Bashin explains, noting that the experience of sighted spouses, children, and friends is also important. "Nothing about this building is going to be dark and dingy and those other stereotypes about what blindness is. We want to come into a center that conveys beauty, play, hipness."

An obvious asset of the new LightHouse headquarters' location—just 15 steps from the Civic Center BART and a Muni stop—is its convenience for the agency's 3,000 students. But there's another, equally important benefit: The building is close to Twitter, Zendesk, Uber, Square, and dozens of other tech firms. According to former board member Knox, Bashin is "just beside himself about being in this mid-Market Twittersphere" because it will be so easy for him to meet with engineers, designers, and other tech innovators. The LightHouse already advises companies on dozens of new products and apps for the blind; Bashin wants to make it a global leader in tech innovations related to blindness.

Four years ago, as a first step toward realizing that vision, Bashin and then-board president Miele created LightHouse Labs, an arm of the organization that serves as an inventor's laboratory and a consulting body for tech innovations. "We needed a dedicated place for bright, brainy, blind technologists, scientists, and teachers to connect with bright, brainy developers, entrepreneurs, and organizations and coinvent solutions for the future," says Bashin. "There's nothing like it anywhere else in the United States."

Miele, who jokingly calls himself the Don Draper of LightHouse Labs, has a wisecracking wit appropriate to someone from Park Slope, Brooklyn. He was the victim of a horrific incident in 1973, when he was four years old: A disturbed neighbor threw acid in his face. The attack, which made national headlines, almost killed him: He was blinded and underwent several years of painful skin-grafting surgeries (one bright blue eye remains but doesn't function). During an interview at his Berkeley home, where he lives with his wife and two children, Miele demurs from telling his blindness story, which, he says, he sees as a distraction from his goals: "I'm much more enthusiastic about the tech I'm developing."

Miele's first job after graduating from UC Berkeley with a physics degree was developing screen readers and

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people whose hearing is even more acute than his. "Everyone at the LightHouse is such a critical listener," says Myrbeck. "The way we listen as sighted people is different from the way a blind person listens. For them, there is so much spatial information that is important. We might hear the same things, but for them the meaning is always a little different."

One example of this is the tapping cane sound that Myrbeck and his colleagues were working on for the board meeting. A sound synonymous with blindness, it's often misunderstood by the sighted: The echolocating cane not only physically detects obstacles that lie ahead but also provides cues to detect, for example, the change between a concrete sidewalk and an asphalt street. "We listen to the space," says Downey, "and decide how to move through it."

Attention to auditory detail is evident everywhere in the new headquarters. Acoustical modeling was utilized most intensely in

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magnifiers for the Mac at Berkeley Systems (a company founded by Wes Boyd and Joan Blades, who went on to create

MoveOn.org). It was there that he found his calling—psychoacoustics, the scientific study of sound perception—and he returned to Cal to get a PhD in the field. His role as an innovator is an extension of what he’s always done as a blind person. “Whenever I want to do something interesting, I’ve always had to figure out how to access it first,” he says. “Who knows these problems better than I do, and who would be better able to come up with appropriate solutions?”

At his day job at the Smith-Kettlewell Eye Research Institute in Pacific Heights, Miele develops technology that allows the blind to “do what they want to do.” His recent projects include the WearaBraille, a wireless braille keyboard built into a pair of gloves: Users tap on any surface—no keyboard—to type braille into a computer wirelessly. Again, there’s that notion of the blind doing for themselves. “We want to help shift the corporate cultures into a mind frame of accessibility thinking,” says Miele. “We want them to think of blind people not as ‘the other’ but as part of them, as the ‘us’ for whom they’re designing these cool things.”

For Miele, the gold standard for built-in accessibility is Apple. Its screen reader, called VoiceOver, has been offered in its products since 2009. Several other companies—Microsoft, Android, and Amazon among them—have followed suit with out-of-the-box screen readers. “Amazingly, the market’s working,” Miele says. Other tech companies that have worked with LightHouse include Google, Facebook, Pixar, and Uber, and smaller tech companies have also collaborated with the group to develop products and services for blind people. (See the sidebar on page 115.)

On a recent Wednesday evening, Preet Anand, chief executive officer of BlueLight—which developed an app that provides first responders with the location of people who call 911—is giving a presentation at LightHouse Labs’ offices in Berkeley’s Ed Roberts Center. Anand reached out to LightHouse Labs after learning that both the blind and the visually impaired were accessing his app: “Once we heard that we were popular in this community,” Anand tells the group, “we wanted to see what we can do better.” Upon learning that not one person in the room has ever used the app, he promises them all a free subscription so they can report back.

A second presentation—on the BrainPort, a \$15,000 device that uses an “intraoral device” to map out a visual field on the tongue and relays it via a video camera mounted on a pair of sunglasses—gets a less than enthusiastic response. According to Bashin, its creator is looking to use the LightHouse as a training center for the device, which was approved by the FDA in June. “That just leaves a bad taste in my mouth,” says Erin Lauridsen, a blind assistive technology educator at San Francisco’s Independent Living Resource Center. “Sometimes people who are adjusting to losing their vision will grab onto the \$15,000 solution that maybe isn’t the best. On the one hand, we want to disseminate information; on the other hand, I hope that the LightHouse is careful about the snake oil, because there’s a lot of it out there.”

“By the gallon,” Bashin adds. “But if the purpose of the LightHouse is to show what’s out there, I think people are smart enough to judge for themselves.”

“Let’s talk about love,” interjects Will Butler, the LightHouse’s media and communications director, adding an item not on the agenda. The room erupts in chuckles. The consensus among those who are blind and single is that dating apps suck. Butler, a 26-year-old with low vision, tells of trying out Tinder. His remaining vision allows him to use Display Zoom, a magnifier, to see photos on his iPhone, but when he tried the VoiceOver tool to get the experience that the blind encounter, “it was terrible.” Plus, he adds, “Tinder’s based on the most shallow philosophy—that it’s all about the photograph. That’s bullshit. We have to get some dating apps in the room.” Everyone agrees. CONTINUED ON PAGE 124 ➡

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students in a cooking class. (Because ovens often have flat touchscreens, blind people use alternatives like adhesive plastic dots to designate the “on” and 350-degree settings.) It’s a brief break in Bashin’s breakneck routine. He bites into a cookie and beams—and why shouldn’t he? The planets have aligned for his organization. “The LightHouse is on the cusp of providing the resources that will improve the lives of blind people everywhere,” he says. It has already lured teachers, volunteers, and students from Kyrgyzstan, Mexico, and Canada. San Francisco’s LightHouse is illuminating the blind world.

In the process, it’s illuminating the world for everyone else as well. According to design guru, Ideo fellow, and former Apple VP Don Norman, tech companies are interested in working with the blind in large part because “doing something for one handicapped group usually ends up making it better for all people—which means for all their customers. Curb cuts in sidewalks help us all; better legibility helps us all; and so on. Good for the LightHouse.”

Last May, Bashin spoke at a fundraiser held at the Noe Valley home of board member Jerry Kuns. “Every week in the Bay Area, 20 people become blind,” Bashin told the crowd. “We need a place for them. Let me tell you, boomers are not going to take blindness sitting down. We need solutions and technologies, and that ineffable thing, that attitude that says, ‘I have a place at the table. How do I belong here? Where do I fit in?’ You can’t read about this in a book. You have to be there. We know that we’re building something that will last for 100 years, a blindness center that no other city has—a blindness center that’s state-of-the-art. It’s not an apology; it’s not a converted garage. It will respect you. It will inspire you to take that next step and become the person you want to be.” ■

## Tokyo by the Bay

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husband, posing with a matcha Kit Kat, the ultimate souvenir). They join early adopters like Trou Normand and Bar Agricole co-owner Thad Vogler, who has been visiting Tokyo for years, and Michael and Lindsay Tusk, who visited Japan twice last year and will return this fall. Still others benefit from the kind of cross-cultural exchange encouraged by Shotaro Kamio, the chef-owner of Berkeley’s Iyasare: He has guided many chefs around Japan, including Ravi Kapur of Liholiho Yacht Club and Duende’s Paul Canales.

In a neat turn of events, the Japanese—particularly Tokyoites—have fallen equally for the Northern California ethos, something that Tokyo has mostly lacked except in high-end kaiseki restaurants. To meet the demand, Tokyo developers have lured Bay Area food businesses to their city, including A16 (which is opening a second location, in Yokohama, this spring), Blue Bottle Coffee, and Dandelion Chocolate. Tartine Bakery Tokyo is in negotiations.

And then there are itinerant Japanese chefs like Shin Harakawa, who staged at Chez Pannise before opening his hip, tiny California-style Beard on a quiet street in Tokyo. His time here triggered an unexpected domino effect: Chez Pannise chef Jérôme Waag recently packed his bags to move to Tokyo and open a restaurant with Harakawa. Rintaro chef-owner Sylvan Brackett, also an erstwhile Chez Pannise employee, has likewise created a bit of an exchange program: His friend Yuri Nomura, proprietor of Tokyo’s cult restaurant Eatrip, will be “helping me with Rintaro,” he says, “coming for short stays to do special dinners and events.”

Despite their infatuation with Japan, most San Francisco chefs are staying put. Still, a mass exodus isn’t completely out of the realm of possibility. As Blue Bottle founder James Freeman—a man who has long worn his love for Japan on his sleeve—puts it, “I tell people, one day I’ll go to Tokyo and forget to come back.” ■