

LANDSCAPE IN THE LOOP



AS THE TECHNOLOGY EVOLVES, REBECCA LEONARD SEES AN OPPORTUNITY FOR LANDSCAPE ARCHITECTURE.

BY TIMOTHY A. SCHULER

Rebecca Leonard, ASLA, first heard about hyperloop much as everyone else in the world did, through bits and pieces of hyperbolic news articles that fawned over the transportation technology and the subsequent think pieces that critiqued it. “It ranked right up there with other technologies that seemed so far-fetched at the moment, like artificial intelligence and virtual reality and that kind of thing,” she says.

This was in 2012 and 2013, shortly after Elon Musk first published a paper describing the technology, which uses magnetic levitation and a vacuum-sealed tube to propel specially designed pods at speeds of up to 600 miles per hour. Five years later, Leonard, who recently left her position as president of Design Workshop, is taking hyperloop very seriously. She is part of the Rocky Mountain Hyperloop Consortium, which earlier



this year was one of 35 semifinalists (out of 2,600 applicants) in the Hyperloop One Global Challenge, a competition launched in 2016 to explore the feasibility of the technology.

Hyperloop transport may not seem like obvious terrain for a landscape architect, but that’s the point, Leonard says. Hyperloop will have serious ramifications for the built environment, from where stations are located to the ecological consequences of the tube networks. Those decisions shouldn’t be left in the hands of the technologists, she says. “Urbanists—people who understand infrastructure, understand impacts to people—really need to get involved in the conversation.”

TOP
Hyperloop One’s test track in Nevada. Leonard says there are opportunities for designers in the development of hyperloop transport.

INSET
The company’s “aeroshell” pod was unveiled this summer.

HYPERLOOP ONE



Alan Berger, a professor of landscape architecture at Massachusetts Institute of Technology and a codirector of the university's Center for Advanced Urbanism, sat on Hyperloop One's panel of U.S. judges. He says without questioning how hyperloop will affect patterns of human settlement, or how it intersects with soon-to-arrive autonomous vehicles, hyperloop "kind of just becomes a technology in a tunnel."

In September 2017, Hyperloop One announced its 10 winners in the Global Challenge. Leonard's team wasn't among them. (U.S. routes include Chicago to Pittsburgh; Miami to Orlando, Florida; Dallas to Houston; and Cheyenne, Wyoming, to Pueblo, Colorado.) Nonetheless, Leonard and her colleagues say they are moving forward with their plans. The Hyperloop Advanced Research Partnership, a nonpartisan, nonprofit organization aimed at research and knowledge sharing, and the Hypernet Holding Corporation, a for-profit entity, both spun out of the Rocky Mountain Hyperloop Consortium this year. Leonard is the president of the latter.

At this stage, hyperloop is not a zero-sum game, Leonard says. She and her colleagues, a group of business leaders from the finance, energy, and technology sectors, are working toward their vision of a 20,000-mile hyperloop network that will span the nation. They argue that a successful hyperloop network needs multiple nodes if it is to serve many interests, including the movement of freight. And it ought to be integrated with other forms of cross-country infrastructure, such as fiber-optic cable, Leonard says.

"It also can't benefit only cities," she adds. Leonard says high-speed rail and other forms of transit often have neglected rural America, bypassing small towns while foisting environmental impacts upon them—bifurcating ranchlands, for instance. With hyperloop, Leonard says, there are opportunities to do better. "We really want the technology to solve for those problems instead of the public and the government solving for the shortcomings of the technology." ●

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ABOVE
An illustration of the proposed 20,000-mile hypernet, with a focus on a Texas–Colorado corridor.