Farahi creates environments whose physical shapes can change according to the bodily movements of their users.

Wall Whisperer

BEHNAZ FARAHI'S INTERACTIVE INSTALLATIONS BREATHE LIFE INTO STATIC ARCHITECTURE.

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Photo Laura Cechanowicz

Living, Breathing Wall uses speech recognition to manipulate a spandex surface. The investigative project seeks to answer Farahi's question: 'How might we imagine a space that can develop an understanding of its users through their sounds and movements and respond accordingly?'

THE name of Behnaz Farahi's recent project, Breathing Wall, is no false advertising. Her installation – made of stretchable fabric, PVC pipes, wood and DC motors – is controlled by a 'brain' similar to the ones our mobile phones have. The electronics bring to life an otherwise dead surface to make it appear an empathetic creature that responds directly to movements and cues from users within the space.

Like other projects by Farahi, the wall has made design websites freak out as much for its innovative use of technology as for its beauty, intimacy and surprising warmth. Technology leaves many feeling cold, after all. But Farahi – architect, designer and PhD candidate at the University of Southern California – says this is only a prototype for what she sees as the future of our surroundings: a built environment that's understanding, responsive and fully awake.

You work across art, architecture, design, fashion and interaction design. Is there a single idea driving your projects, or are they separate investigations? BEHNAZ FARAHI: The heart of my work is the creation of interactive environments whose physical shapes can change according to the bodily movements of their users. All my projects investigate how environments can be more like living creatures and how that quality can change and improve the way humans and environments interact.

These questions even extend into my fashion pieces. I'm not interested in simply making something wearable, like a dress; I want to create a very 'near' environment for the user. The question I ask is: how does the environment around our bodies extend to an entire interior environment, like that of a building? The bigger question is: how can interior design help define a different kind of relationship between user and environment? ↳

Farahi's Breathing Wall series responds to movements and cues from users in the surrounding space.

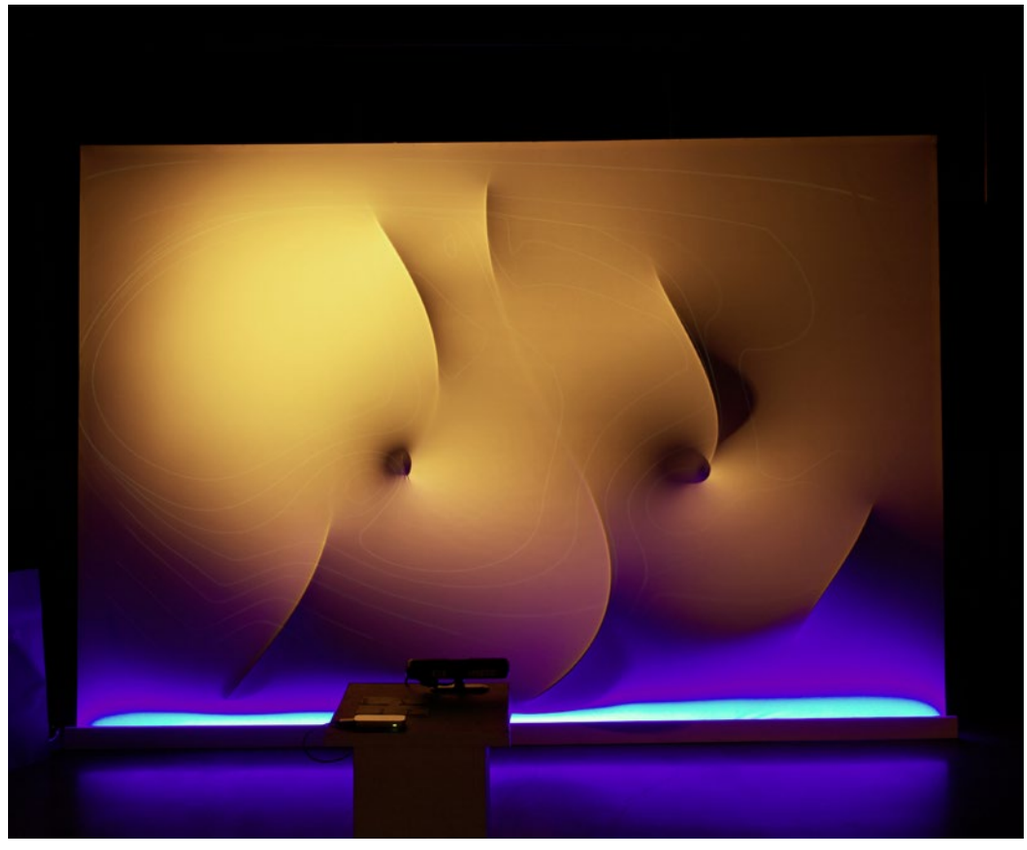
'In the future we'll interact with built environments in direct and intimate ways'

↰ Are there certain materials you use more often than others to achieve an animate context? I seek out anything flexible, stretchable and reconfigurable – materials like spandex, latex, different sorts of rubber bands, and fabrics. I'm interested in the study of soft, fluid systems that move, merge and morph – and of materials that are alive, in and of themselves. There are many forms in nature that have soft tissue, allowing them to continually reconfigure, like the leaves of plants, such as *Mimosa pudica*, that move when you touch them. The human body is another example. We've long held the notion of the body as a continuous bone structure with muscle between, but in actual fact there is a very soft connective tissue called fascia that covers our bones and muscles, enabling their movement. I'm fascinated by this continuous tension surface in the body. Of course, what makes humans and other creatures alive are their brains, which is why I also give physical objects and spaces a brain: a micro-controller that can be programmed to send various comments to different parts of the body. I want my projects to have the *physical* ability to move and react.

Are you challenging the idea that built environments have to be rigid or even 'final'? Yes. I'm tired of living in environments that are solid and motionless. The natural environment isn't like that at all, so there's no reason why architecture should be anchored by systems of construction and production either. I like the idea of responsive environments. The notion's been around for decades, but I want to pursue the idea of biological adaptation rather than mechanical adaptation. Simply moving walls and ceilings from one position to another doesn't interest me; a structure's ability to adapt and transform – and to help users relate more closely to built environments – does. This ambition goes all the way back to Michelangelo and his study of the body's proportions in relation to its surroundings, but thanks to advances in technology we can now take these ideas so much further.

Technology is stereotyped as being cold and making humans even colder. How can it bring environments and their users closer together? There is widespread scepticism about technology, a fear that it will somehow decrease the value of human beings. I disagree. With today's technology, you can detect all of a user's movements – even hand gestures – and see much more closely how the human body relates to the built environment. Look at how the iPhone has changed us and how it responds to our gestures – our swiping, clicking and dragging. In the future we'll also interact with built environments in direct and intimate ways. Essentially, my work is a series of prototypes that I hope will soon come together to make entire environments that have poetic and interactive relationships with their users. For now, such environments remain unknown, but in a few years I won't have to explain my work, as we'll already have lived through dramatic changes in how we live in and with space. ✕

behnazfarahi.com



Breathing Wall uses an operating system similar to that of a mobile phone.

Photos Ramtin Khah