Materials that connect and separate us: COVID-19 and protective barriers

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During the COVID-19 pandemic, face coverings and partitions that protect people from the virus have enabled individuals to connect by separating from one another. On February 27, 2020, the World Health Organization (WHO) published a recommendation to install transparent barriers of glass or acrylic. The barriers perform three functions: to intercept the droplets that carry the virus, to remind people of physical distancing requirements, and to reduce reliance on masks when there is a shortage of PPEs. By mid-March, the barriers swiftly appeared not only in medical spaces, but at cashier’s counters, taxis, post offices, and later at restaurants and hair salons to protect the health of employees and customers. Like masks, these barriers have been introduced as an emergency public health measure; however, social implications of these public health measures remain largely unconsidered and demand attention.

Transparent materials such as glass or acrylic allow people to see each other’s faces, which is generally preferred over opaque materials that prevent reading facial expressions and body language that convey emotions. Seeing gestures and mouth movements is also more equitable for people with hearing difficulties. Although transparent masks have been designed in response to such concern, even a clear
material is an obstruction; sounds are muffled, tactility is lost, and reflections on the surfaces can obstruct vision. Furthermore, acrylic barriers can remind us of high security, stressful interactions, such as sitting in the back seat of police cars. Over the past couple of decades, offices have removed partitions between employees in order to create more open, egalitarian office environments. If partitions need to be re-introduced, companies must be mindful of how these barriers may create unintended hierarchies and communication obstructions that result from the walls. This paper examines the physical, social, and mental impacts of protective barriers on our cities and interiors.

• Author(s) Biography (200 words each):

Aki Ishida is Associate Professor of Architecture at Virginia Tech and a licensed Architect. She is also a Senior Fellow of Virginia Tech’s Institute for Creativity, Arts and the Director of Intelligent Infrastructure for Human-Centered Communities, the university’s trans-college initiative that fosters transdisciplinary research and curriculum. She founded Aki Ishida Architect PLLC in New York City, and prior to that, she worked at the offices of Rafael Vinoly Architects, James Carpenter Design Associates, and I.M. Pei Architect.

Aki’s work examines architectural materials in broader cultural and social contexts. She is the author of the book Blurred Transparencies in Contemporary Glass Architecture: Material, Culture, and Technology (Routledge, 2020). Her design work is a synthesis of spatial uses of light and her interest in public engagement through built environments. Aki’s research has been supported by The Japan Foundation, Columbia University, The American Institute of Architects NY, The MacDowell Colony, and the Baer Art Center. She has served three times as a panelist for the National Endowment for the Arts grants. She has been recognized with a 2017 Association of Collegiate Schools of Architecture New Faculty Teaching Award and as one of 25 Most Admired Educators for 2016 by DesignIntelligence.