## **Urban Syncopation**

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'Urban Syncopation' temporarily inhabits the capture existing spaces of the city with a performative inputs. skin that functions as a responsive, dynamic repetiti

skin that functions as a responsive, dynamic interface. As in the encryption of data that underlies the invisible orgware of the city's systems, the patterned and faceted surface of this installation acts as an infrastructural device and living thickened topography that collects, transcodes, and re-transmits—in a rhythmic syncopated fashion—the collective 'heartbeat' of the city as this is interwoven with the reflected movements of its immediate environs. The work is a repository of urban information that renders visible the unseen traces of the city's occupation while simultaneously weaving them into a new architectural and spatial network.

The patterned surface of 'Urban Syncopation' is defined through a series of faceted, mirrored, and perforated "pixels" that are rhythmically arrayed according to rules that modulate their width, depth and triangulated surface topography. These variations in the pattern, perceived as lateral compressions and expansions of the folded undulating surface, emphasize the tracking and directionality of the way in which the information is redeployed across the thickened skin as it MONA EL KHAFIF University of Virginia

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captures and spatializes temporal and aural inputs. The pattern is an interdependent repetitive system generated through operations of folding, scaling, stacking, and weaving so that multiple elements are integrated into a new visual, spatial, and tectonic configuration.

Each individual pixel is constructed out of a perforated aluminum composite surface. The tracery of inscribed lines, that traverse this surface, are CNC-cut and scored to allow the stiff material to bend, enabling it to capture space through its own enfolding. The resulting interlaced pattern—an undulating triangulated surface of peaks and valleys-generates continuities across the skin while emphasizing its interwoven logic. The rhythmic series of faceted pixels, which passively fragment, and reflect surrounding motion, are organized into six horizontal strata, each of which receives data from a different remote downtown site and that collectively refer back to the layered streets that constitute the downtown fabric of Toronto. Sound sensors located along commercial east-west urban corridors from King to Bloor Street, along with those situated within the immediate environment of the piece, are employed to track urban activity levels throughout the day and night and

transcode this data into a rhythmic series of pulsing lights that undulate and move laterally across and within each of the strata. This layering of passive and active systems productively recircuits the movements of collective urban life while weaving them into a single syncopated surface.

