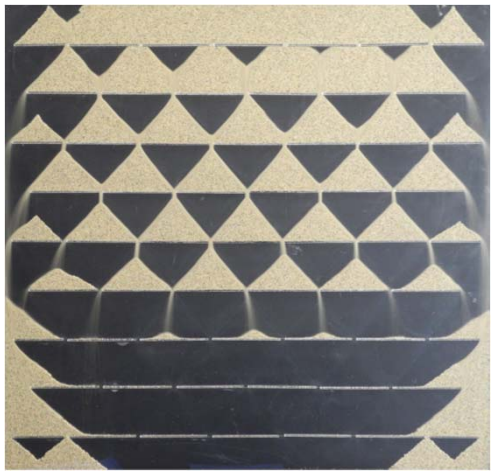

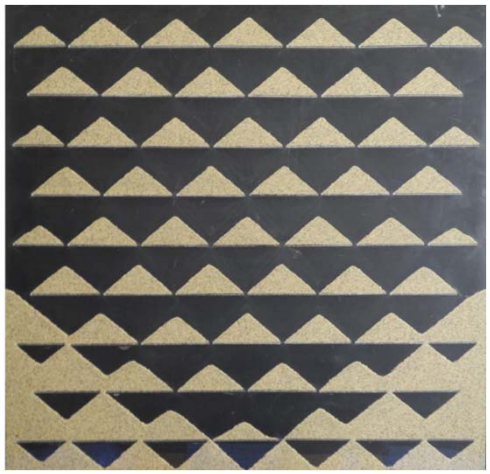

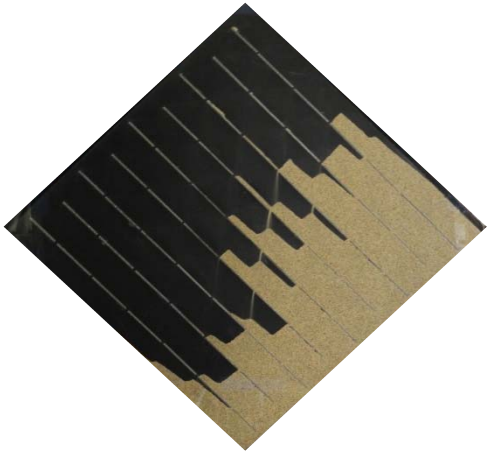

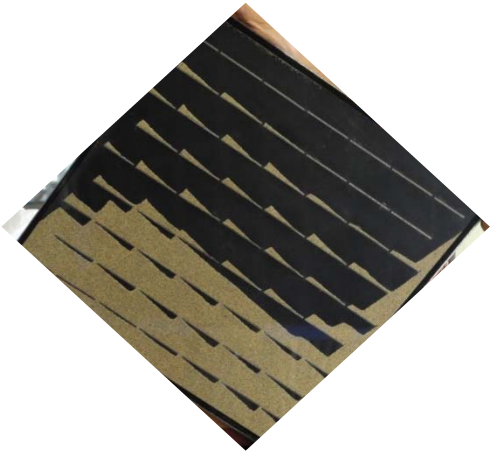

Photogenic Fluids II: Patterns in Sand Box*

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Dry sand and air occupy a thin, sealed enclosure made of acrylic. Segments of acrylic rods (1.6 mm diameter) divide the enclosure into multiple rows. The enclosure is oriented vertically such that the rods are horizontal. Upon turning the enclosure 180^{o}, the sand falls through gaps and triangular mounds of sand are formed on the rod segments, demonstrating angle of repose, as shown in the upper images. Different patterns are formed by turning the enclosure through other angles, as shown in the lower images (photos taken at compound angles to reduce reflection). The enclosure is on display below; please feel free to interact with it.
Recently, we installed a museum-quality version of this enclosure in our university library as an interactive device to treat visitors to a playful sand flow experience. The enclosure is outfitted with a turntable and housed in a frame attached to a wall. Explanatory notes on the frame inform users about angle of repose and the importance of granular material flow.

* This work was inspired by art work of Meisetsu Watanabe, exhibited at A Museum of Fun II, Japan, 1984.