



## The Dialogue between Drawing Machines + Human Ambience

Architecture Student Research Grant 2015

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*[submission for Dimensions]*

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The Dialogue between Drawing Machines + Human Ambience explores the dichotomy and synthesis of the interaction between programmed movement and human interaction through automated and sensory technology. The research focuses on the development of machines that generate drawings collecting the surrounding information of the place and time. Using sensors such as light, vibration, sound, and object sensors, the machines react and alter its path and form of motion based on the contextual ambience.



During the Wallenberg Lecture in 2015, held by Taubman College, Architect, Daniel Libeskind said this one remark that our ASRG team tried to accomplish in our research.

"Drawings draw you somewhere."

Architecture has always lied in between the transformation and translation of drawings and actuation (the physical manifest). Many of these precedents reveal the pursuit of a perfect drawing; some embrace the effects of randomness and accumulation; others seek to reveal truth and objectivity; and all drawings analyze something or some place through specific methods.

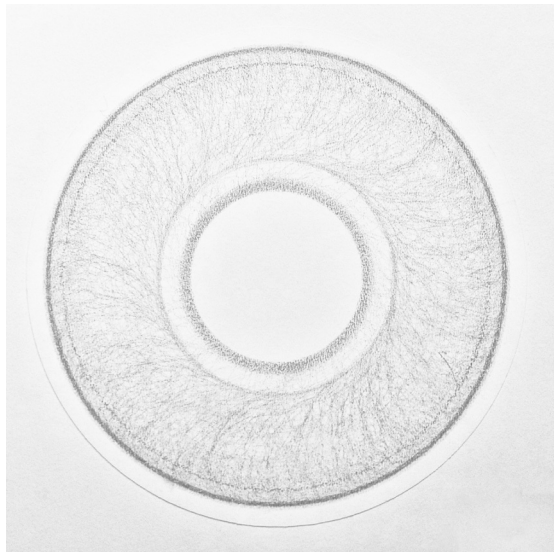




Drawing Prototype 1-#18  
RGB Gallery - 9:00



**Drawing Prototype 1-#7**  
North Entrance - 7:00



**Drawing Prototype 2-#5**  
East Hallway - 15:00



**Drawing Prototype 2-#17**  
RGB Gallery - 7:00

This collection of information about a specific place is translated into the drawing, hence making this drawing device an artifact that stores the memory of that place. Although the machine is scripted and programmed in such a way to have a base path, a default, the human interaction and context allows the drawing to accumulate with ink which starts to dissolve a perfect drawing and celebrates the amorphousness of the drawing, in other words, sloppy precision.



Prototype 1



Prototype 2



The next steps of the research after the exhibition is to decode the drawings by studying the motion, density, forms of what the machines have produced based on different spaces in time. As much as this project is about the exploration of the dichotomy of machine and man, it goes beyond that simple idea and hopes to flirt with the concepts of recording space, drawing that space, and decoding the drawing of the space.

Thank you, Taubman College for continually creating a culture for students to freely explore and research architecture through interdisciplinary collaboration. We would also want to thank Dean Monica Ponce de Leon and the Taubman College Alumni Board, Class of 2015, for their generosity in funding the architecture student research grant. Special thanks to MaryAnn Wilkinson, the Exhibition Director for her coordination of the exhibition, and to James Tate being a faculty advisor who has helped us in the project with critiques and suggestions. As well as Tae Min Kim for mechanical consulting + Brandon Kang who has worked rigorously with the scripting of the machines.

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