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Luke Hellwig
Rochester Institute of Technology

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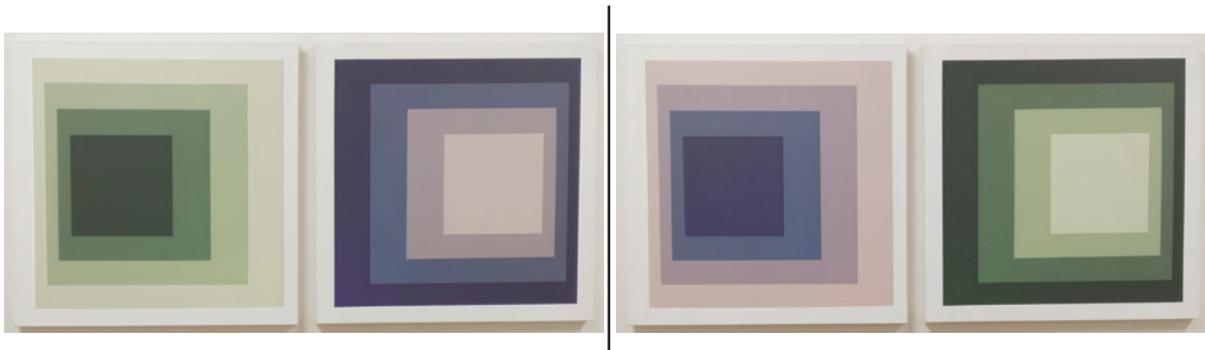
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AR Painting: Homage to Homage to the Square

Luke Hellwig
Rochester Institute of Technology

Abstract — This work is based on the Homage to the Square series of paintings by Josef Albers, which includes two murals installed in the lobby of the Eastman Building on RIT’s campus. Albers’ work explored how spatial interactions influence our perception of color, how the color we perceive an area to be is affected by the color of the areas around it. These paintings use Albers’s designs to explore the interaction between projected light and paint, and the resulting perceptual ambiguity. The paintings themselves are purely achromatic. Projected regions of colored light aligned with the painted grayscale borders allow the perceived color of each region to be individually manipulated through a MATLAB program. Arrestingly, the color of the paintings, which change over time, seem to belong to the paint itself, even though their color is provided by projected light. This phenomenon is due to the inherent ambiguity in our visual perception of color and its basis in the interaction between illumination and material properties. In addition to their aesthetic qualities, the paintings provide a model for future digital interventions that subtly augment our perception of the world..

Keywords— Augmented Reality, Art, Perception, Color, Painting, MATLAB



Figures 1 and 2 (above). Still images of the work.