Keynote Address

Modern Trompe l oeil

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The traditional goal of 3D computer graphics has been to create more and more realistic visual simulations, and, recently, more and more immersive technology. In art, there was a similar drive towards realism and immersion that culminated in the "trompe l'oeil" (literally, "to fool the eye") style of architectural painting. For example, A. Pozzo painted an image of St. Ignazio rising into the heavens onto the hemi-cylindrical ceiling of the St. Ignazio church. The image was painted so precisely and realistically that when viewed from the center of projection, in this case a yellow marble tile in the center of the church, the painted ceiling and the architecture are seamlessly merged to create a dramatic sense of immersion.

In this talk I will describe this odd style from art history and try to extract some lessons of interest to computer graphics and visualization researchers. Surprisingly, the trompe l'oeil style, although technically sophisticated, is usually considered a failure. Can the goals of trompe l'oeil be rescued with modem technology? And, what can be learned about the limitations of immersive environments, particularly their effectiveness, from these early efforts?

Biography

Pat Hanrahan is the CANON USA Professor of Computer Science and Electrical Engineering at Stanford University where he teaches computer graphics. His current research involves visualization, image synthesis, and graphics systems and architectures. Before joining Stanford he was a faculty member at Princeton. He has also worked at Pixar where he developed developed volume rendering software and was the chief architect of the RenderMan interface - a protocol that allows modeling programs to describe scenes to high quality rendering programs. Previous to Pixar he directed the 3D computer graphics group in the Computer Graphics Laboratory at New York Institute of Technology. Professor Hanrahan has received three university teaching awards. He has also received an Academy Award for Science and Technology, the Spirit of America Creativity Award, and the SIGGRAPH Computer Graphics Achievement Award.