

A Ballad of Historical Dependency

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1. Inspiration and narrative

“Cabinet of Dreams” is a 3D virtual reality (VR) showcasing highlights of the Chinese art collection from the Indianapolis Museum of Art (IMA). Objects were recreated as 3D computer graphics and studied in inspiration towards developing virtual environments for their display. The objects range in date from 1000 BC to the mid-1800s and include wood, bronze, and earthenware ceremonial pieces as well as household items. Among them are an inkstone with mountains and a dragon, a brushpot with scenes of country pursuits, a ritual cooking vessel, a model of a wellhead, soul urns, pillows and figures including a boy with a dog.

One of the objects is a Qing dynasty cabinet made of cloisonné, glass, and zitan wood that was a gift of Mrs. George Phillip Meier. The cabinet is the metaphoric center of the installation, reflected in the art and the display device as if it were a modern day Wunderkabinett. By combining the actual cabinet with the virtual dreams inspired by the real objects, computer graphic environments represent a structure of times past as well as a sense of virtual space. The real cabinet stands outside of the gallery space near the upcoming Asian galleries. Its presence hints at the collection of rarities that are hidden within the virtual environment and the museum itself.

2. Art passage in VR time

The IMA is undergoing a \$74-million expansion to add 164,000 square feet and renovate another 90,000 of existing space. A grand re-opening in May 2005 will reveal merely a portion of the facility. The complex will open in stages with the Asian collection unveiled in new galleries in June 2006. In order to represent the prize collection in the interim, a virtual environment was created.

Using VR, the items no longer remain in storage to sit frozen behind glass – they exist in another instance of time and space and are being displayed in real-time 3D stereo vision and audio using projection technology. In the virtual environment, the museum visitor is allowed to approach the precious object with a new sense of proximity, scale and viewing perspectives that real life cannot accommodate. It is a rare instance that one would be able to view all sides of an object as we did for our source photographs. It requires a one-on-one viewing with an official.

VR allows non-traditional views and important aspects to be emphasized. Inside the rim of an ancient bronze vessel (see image) is an inscription of a man on a chariot which dates to a time when language was shifting from a hieroglyphic format to an alphabet. Under the centuries of bronze corrosion, it is extremely difficult to discover the symbols without the aid of an expert. Such experiences of intimate discovery fuelled our consciousness at the museum and established connectivity within our work towards creating and developing the virtual environments.



3D model of Shang or Western Zhou dynasty bronze ritual cooking vessel from about 1000 BC, referred to as a “li ding”.

3. Technology and delivery mechanism

“Cabinet of Dreams” 3D viewing occurs on a device called the John-e-Box, a portable, large format, 3D stereo display system developed by Indiana University’s Advanced Visualization Lab in conjunction with the IU Bloomington Department of Chemistry. Viewers wear polarized glasses and navigate using a space ball.

Thirty objects from the museum collection comprise eleven virtual environments. Upon entry, visitors see the cabinet in its entirety houses all of the precious objects. The main environment is a series of hallways with sliding doors that reveal compartments holding a smaller version of the original cabinet. When the cabinet is approached, the doors open to display an image fluctuating inside. As the visitor approaches the image, time and place fluctuate and one is transported to an alternative world, one that was depicted in the image. Audio is central to the immersive environments, lifting one up and carrying the visitor between time and space. Each environment’s audio is composed to establish a unique atmosphere based on the history of the object and its functions. For example, the wellhead tells the story of the eastern sky and the audio gives voice to a faraway constellation.

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