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Fluxbase: cataloging and experiencing non-traditional art with technology

For years, curators, librarians, and archivists have used computers to catalog and index information on works of art. This type of system operates like a basic card catalog file system: each artwork in the collection is represented by a record. Each record contains information fields such as the work's title and creator, when the work was created, its owner, and exhibit dates. This provides the minimum one needs to manage, exhibit, and interpret, for example, a contemporary portrait or a sculpture; but it is inadequate for managing a subset of contemporary art known as Fluxus and other works of art that are considered nontraditional.

The Fluxus movement attempted to break down the structure of traditional art as a submissive medium. Its primary goal was to make art more accessibleÐboth its components and its interpretation. Frequently, everyday objects such as marble, or postcards were incorporated within Fluxus works.

To store and retrieve information on Fluxus works with conventional databases is difficult. Separating these works into standard artistic categories makes searches difficult because one has to guess in which category a librarian has placed the work. Also, because the titles of Fluxus works often have little to do with the composition or presentation of the works, searching for related works is difficult. Furthermore, many Fluxus artists are uncomfortable with the way their works have been categorized in the past and are unwilling to have them entered into traditional databases.

Unconventional wisdom

In April 1989, the National Endowment for the Arts sponsored a conference to address the inadequacies of using existing artwork information systems for Fluxus. The conference was organized by Estera Milman, founding director of The University of Iowa's Alternative Traditions in the Contemporary Arts, in collaboration with Franklin Furnace, NYC. Attending institutions included the Museum of Modern Art, NYC, and the Getty Center for the History of Art and the Humanities.

ªFluxus art was designed to incorporate, as well as mingle with, everyday life,º says Milman. ªYou interpret aspects of Fluxus by playing with its objectsÐits event-kits.º At the conference Milman used a work titled ªFlux Year Box 2º to illustrate the event-kit concept. Crafted from a 10-inch hinged-lid square wooden box about 2 inches deep, more than 17 artistsÐamong them Yoko Ono and George MacuniasÐcollaborated to create ªFlux Year Box 2º in 1969. Now, due to its appraised value, people cannot interact with ªFlux Year Box 2º with their own hands, as the artists intended. This frustration was the inspiration behind the NeXT ªFlux Year Box 2º simulation developed at the University of Iowa.

Simulating reality: objects of art
ªOur design model was simple,º says Joan Huntley, project leader of the NeXT ªFlux Year Box 2º simulation. ªWe wanted to give people the feeling that they were actually working with the real Fluxus artworkÐopening it and playing with the objects inside.º

ªJoan's goal of imitating real objects was a primary reason we developed the project on NeXT computers,º says Mike Partridge, creator of Fluxbase, the underlying program. ªFluxus works are generally collections of physical objects. Because the NeXTstep development environment is object-oriented,º says Partridge, ªit's inherently easier to use to simulate physical objects.º

To achieve a highly realistic effect, Huntley used a digital video camera to capture images of the actual ªFlux Year Box 2.º Once all its elements were captured, Partridge converted the images to .tiff format, and displayed them on a NeXT computer. ªHandling the digital images was easy,º says Partridge, ªbecause the NeXT Application Kit contains image manipulation objects that treat each picture as a graphic object file.º

Partridge then built the virtual ªFlux Year Box 2.º Using Interface Builder, he created the primary backgroundsÐone of ªFlux Year Box 2º closed, and another with its lid opened. Inside the real box are a number of small compartments, or ªbins.º Contained within each bin is an individual artist's object. To simulate the real box, Partridge placed each scanned image into its corresponding bin. He created a bin index to keep track of each object and its location. This index was especially handy during testing, enabling Partridge to quickly return each object to its original bin.

ªAfter a couple of weeks, when I was familiar enough with NeXTstep, I added invisible buttons to each object,º says Partridge. When the user clicks an object's ªhot spot,º it activates an animated effect, such as opening a box of matches, or flipping over a playing card. ªThe basic, functioning prototype took about four weeks to create.º

Open and shut case
How does one experience the ªFlux Year Box 2º exhibit? ªThe NeXT display is so large that `Flux Year Box 2' and its contents are displayed at nearly actual size,º says Huntley. Among the objects are illustrated monogram cards, an envelope, a box of matches, and a film loop. Using the mouse, the user can drag an object from its bin, then explore it. The user can remove the box of matches, for example, and open it to reveal the underlying message. Or the user can open the envelope to remove the note it contains. By clicking the note's corners, the user can unfold the note, read it, then re-fold it. According to Huntley, figuring out how to operate the objects is part of the experience and part of the fun. ªThe computer adds a new dimension to discovering and interpreting the artist's intended message or effect.º

Today's reality, tomorrow's virtuality
Partridge is currently experimenting with NeXT's Sound Kit™ Music Kit™ to take advantage of NeXT's digital signal processor (DSP) to incorporate recorded music, and historical oral interviews with the artists.

ªWe'd like the artists to be able to explain their exhibitsÐor how their element interacts with another artist's work,º says Huntley. To simulate the collaborative aspect of Fluxus works, Huntley wants to network a number of virtual simulations. ªOne example of a collaborative Fluxus artwork is an illustration that a group of artists mailed among themselves, each artist adding his or her own artistic component.º

The project team is readying a newer, richer version of Fluxbase for an upcoming exhibit in the spring of 1992 at the Franklin Furnace Museum in New York City. When the show opens, the team hopes to demonstrate their most exciting enhancement: a Mattel Power Glove interface. Wearing the Power Glove, the user interacts with the ªFlux Year Box 2º by motioning at the NeXT display. ªIt's like introducing an intermediate virtual reality into the Fluxus art world,º says Partridge. ªWe want people to come as close as possible to experiencing Fluxus artworks first hand.º

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