# Cleopatra:
## An Interactive Guide to Art of the Ancient World

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## Project Summary

The Art Institute of Chicago is developing *Cleopatra*, an interactive touchscreen program for its newly reinstalled galleries of ancient art. The program is expected to increase the understanding of these collections, add broad cultural and historical context to the works of art, and inspire close observation of these works.

With this reinstallation, the Art Institute will fully integrate, for the first time, computer technology as an interpretive tool in a permanent collection gallery. The museum's goal is to design an interactive multimedia program, tentatively named *Cleopatra*, that showcases 18 objects from our collection. *Cleopatra* will relate these objects through a variety of views of an information matrix using simple navigational features such as maps, timelines, and illustrated text panels.

*Cleopatra* has been conceived as a series of "layers," making information about objects in the ancient art galleries accessible to visitors with different backgrounds and interests. It allows the visitor to answer questions he or she may not have found discussed in other sources; to follow paths of inquiry through time, media, or other associations, according to each user's inspiration; to provide views inside, underneath, and even, through x-rays, within an object, which are not possible within the gallery. Finally, the presence of computers in an adjacent space encourages the visitor to return to the objects with greater interest.

## Permanent Collection Background

The Art Institute's ancient art collection began with the museum itself. The earliest holdings were antiquities and plaster casts of ancient masterpieces that were used in drawing and art history classes. Like other American museums founded in the late nineteenth century, the Art Institute espoused the belief that classical art represented man's highest aesthetic achievement. Greek and Roman art was seen not only as the origin of all subsequent Western art, but was viewed as an inspiration for moral excellence. Older than the civilizations of Greece and Rome was Egypt, whose associations with the religions of the Old and New Testaments made its cultural remains equally valuable to theologians and art historians. Because, in the late nineteenth century, the study of these three cultures validated a museum's intent, Chicago began its collecting with the art of Egypt, Greece, and Rome. James Breasted, a young archaeologist at the University of Chicago who later founded the Oriental Institute, assisted the Art Institute in the purchase of objects, particularly works from ancient Egypt.

## The Reinstallation

The Art Institute of Chicago recently completed the reinstallation of its collection of ancient Egyptian, Greek, Etruscan, and Roman objects. The collection was installed in approximately 2,500 square feet of gallery space bordering the museum's central open court. The selection of objects in the installation emphasizes the strengths of the collection: superb Egyptian and Roman sculpture, especially of the Old Kingdom and Hadrianic periods; Greek vases rich in both quality and quantity; Egyptian and Roman bronzes; a renowned collection of ancient glass; and an outstanding, but almost unknown, coin collection.

The organizing principle of the reinstallation is to give the public an overview of the major civilizations that bordered the Mediterranean Sea in antiquity; objects are presented in groupings that illuminate the cultures that created them. These civilizations shared a common ecosystem, but regional differences (the Nile and desert in Egypt, the peninsulas and islands of Greece, the Italian valleys and metal-bearing mountains) produced different economies, governments, religions, and periods of hegemony. In the reinstallation, the viewer is able to see, in one location and in one coherent set of spaces, both the similarities and the vast differences among these peoples, their institutions, and the arts created to serve their needs. These cultures are vastly distant from today's audiences and neither the history nor the languages of the ancient world are offered universally through the education system. Therefore, careful and thorough visual and verbal narrative communication throughout the installation provides the public with every opportunity to learn that these ancient cultures offer many relevant ways to consider the common human condition. These are also the reasons that the Art Institute has chosen to use computer technology as an interpretive tool within the ancient art galleries.

# Project Background

The evolution of *Cleopatra* offers an instructive example of the integration of technology within a museum's presentation of information and of the advantages of collaboration among various professionals.

The ancient art collections of The Art Institute of Chicago had been represented by only a few dozen works of art and had not benefited from a comprehensive presentation in nearly a half-century. With the decision to reinstall the collections came the opportunity for new research, photography, and written explanations. The architecture of the new gallery held the promise of an appropriate space for kiosks for an interactive computer video dedicated to the collection. This space could be adjacent to but not in the gallery, a feature which was initially attractive, because of the novelty of such technology in the museum's galleries. However, the funding for *Cleopatra* was uncertain at first, and the development of information about the ancient collections for visitors developed as funding was found but within a sequence of layers of information that was conceived from the start.

The first format was the wall or case label, which was kept to two or three sentences and which addressed the most salient fact concerning the object—its meaning, its fashioning, or its formal qualities. These were primarily written by the curatorial department, though reviewed by Museum Education and Publication editors, and were aimed at an educated but not specialized audience. Separate "chat panels" discussing such topics as the difference between red and black figure painting in Attic vases or Egyptian funerary practices permitted the discussion of broader issues than the basic format of the object label allowed.

The second format to be added was a brochure featuring fourteen highlights of the collection, each illustrated and accompanied by a two- to three-paragraph essay. These were written by the department with extensive assistance from the Department of Museum Education and were aimed at those visitors who wished some more extensive information on the collection.

The third vehicle of information was a special issue of *Museum Studies*, the museum's biannual journal, which featured over sixty objects in the collection with catalogue entries and essays written by specialist scholars but aimed at a general audience committed to learn more about the collection. In essence this serves as an introduction to the collection in published form.

All three of these forms of information were available at the opening of the gallery. These existing forms of information had a decided effect on the early development of "Cleopatra." The earliest projects were oriented toward text and a fairly static presentation of images.

## Project Evolution

In order to secure funding, we had built a prototype of *Cleopatra*. This prototype was submitted to in-depth criticism at a two-day workshop organized at the start of the project in early spring 1995. Specialists in ancient art, museum education and practitioners of interactive technology came together for a serious project evaluation. What follows is a discussion of the original plan and the changes we made to the form and content of the program.

An introductory screen showed thumbnail views of selected objects in the collection.
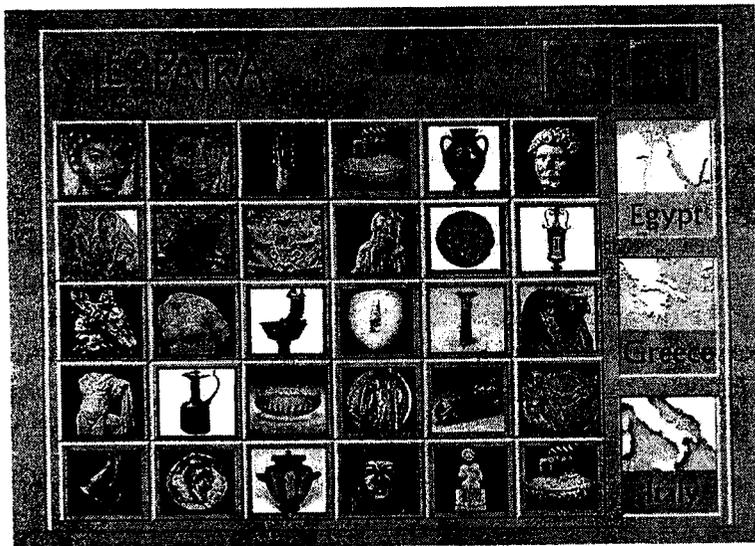


When the thumbnail is touched the screen changed to a full view of the object, basic label information, and several iconic buttons.
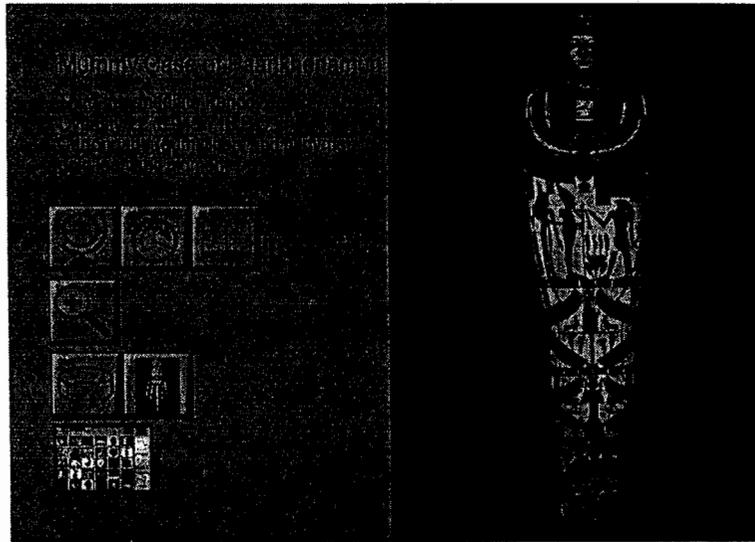
The buttons invoke tools that can pan, zoom, and rotate the object or show screens of illustrations, maps, and timelines, or take you to a picture book which will hold the heart of information about each object.



| Mummy case of Paankhenamun | | |
| --- | --- | --- |
| Egypt<br><br>Third Intermediate Period, Dynasty 22 (c. 945-715 B.C.) Cartonnage (gum, linen, and papyrus), gold leaf, and pigment<br><br>height 170.2 cm<br>width 43.2 cm<br>depth 31.7 cm | The mummy case of Paankhenamun is a container that was used to hold the mummified body of the deceased doorkeeper of the temple of Amun. | |

Unfamiliar words, like **cartonnage**, were highlighted in red which meant that touch them took you to a glossary definition. A significant feature of *Cleopatra* is a button that changes the text from English to Spanish throughout the entire program. This feature will enable the Art Institute to further extend its outreach efforts to Chicago's large Hispanic population (20% of the total population, according to the 1992 census).

The book's organizing principle was that each of the thirty objects in the collection should be approached within the same categories: 1) Image (a description of the object or story it depicts) 2) Function 3) Artist 4) Materials and 5) Comparison (to related objects).

At first this seemed to be a considerable leap beyond the other forms of information: it permitted side-by-side comparisons of other versions of the same sculpture, for instance, or illustration of the various steps of the technique of making glass. However, the approach seemed restrictive in predetermining the same kinds of information for each object and was essentially too scholarly in tone for what was expected to be a more general, and possibly younger, audience.

Efforts were made to simplify choices confronting the viewer: fewer objects were included on the main screen; fewer navigation buttons; less text on the screen and clearly defined buttons. Six objects from each culture are now included on a screen that is organized by each culture.



Images were larger and more dramatic, cultures had a more realistic identity and were color coded for unity throughout the program. Now we were giving our audience a choice of changing the program to Spanish at the very first screen:

It became clear in early "Cleopatra" that we were not taking full advantage of the medium; the images were too static, there were always too many choices and there was too much to read. When the Mummy Case is selected now we are taken to a simple page that presents the viewer with a picture of the object, the most important short statement we'd like the viewer to know about it and the choice to "See More" or view "Stories" (video clips).
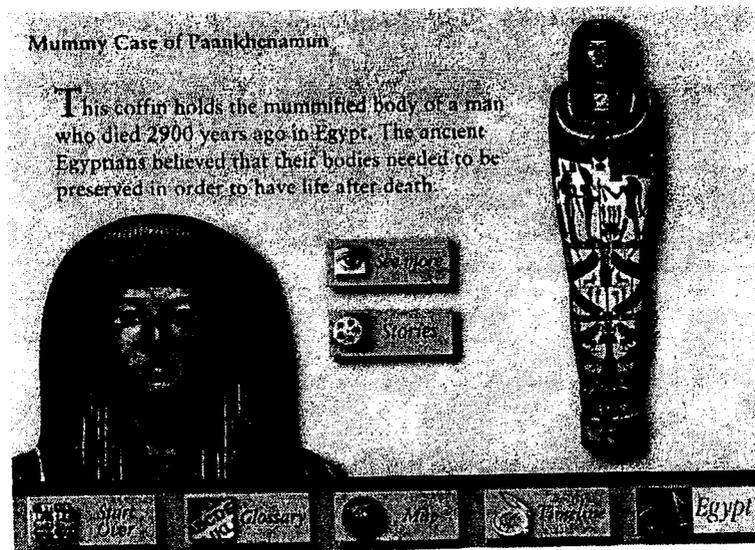
This Mummy Case "title page" would look the same, but have Spanish text if we had pressed the Español button:



If "stories" are selected we are offered a choice of video clips described by a thumbnail photo and a simple statement or question. For example, to describe the construction of the Mummy Case, we show a sequence of images with sound to more effectively describe how it was Rather than force each object into various categories like Artist, Medium, Technique, we ask ourselves what is the most interesting aspect of each object and what does our audience want to know.
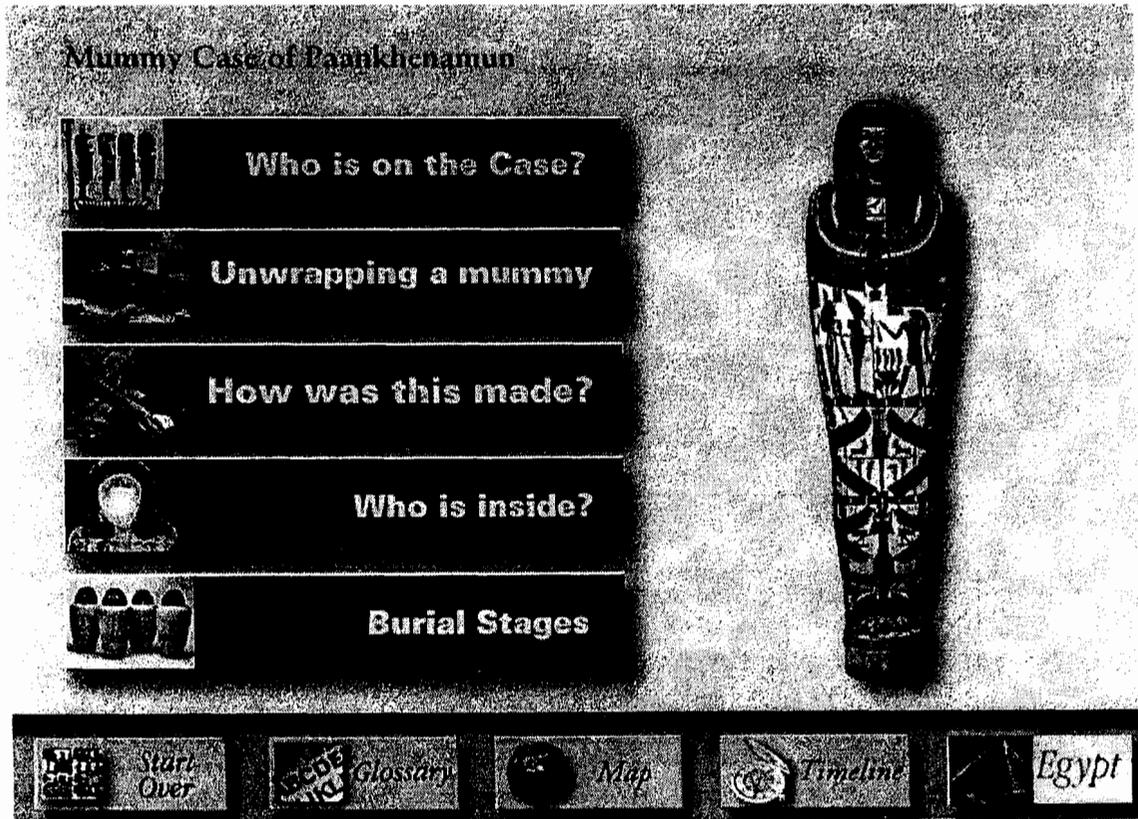
Selecting "How was this made" plays a video clip which describes the cooperative craft of mummy case making. The video clips will have subtitles in either English (for the hearing impaired) or in Spanish. The subtitles could indicate unfamiliar words in red thus directing the view to a glossary for their definition.
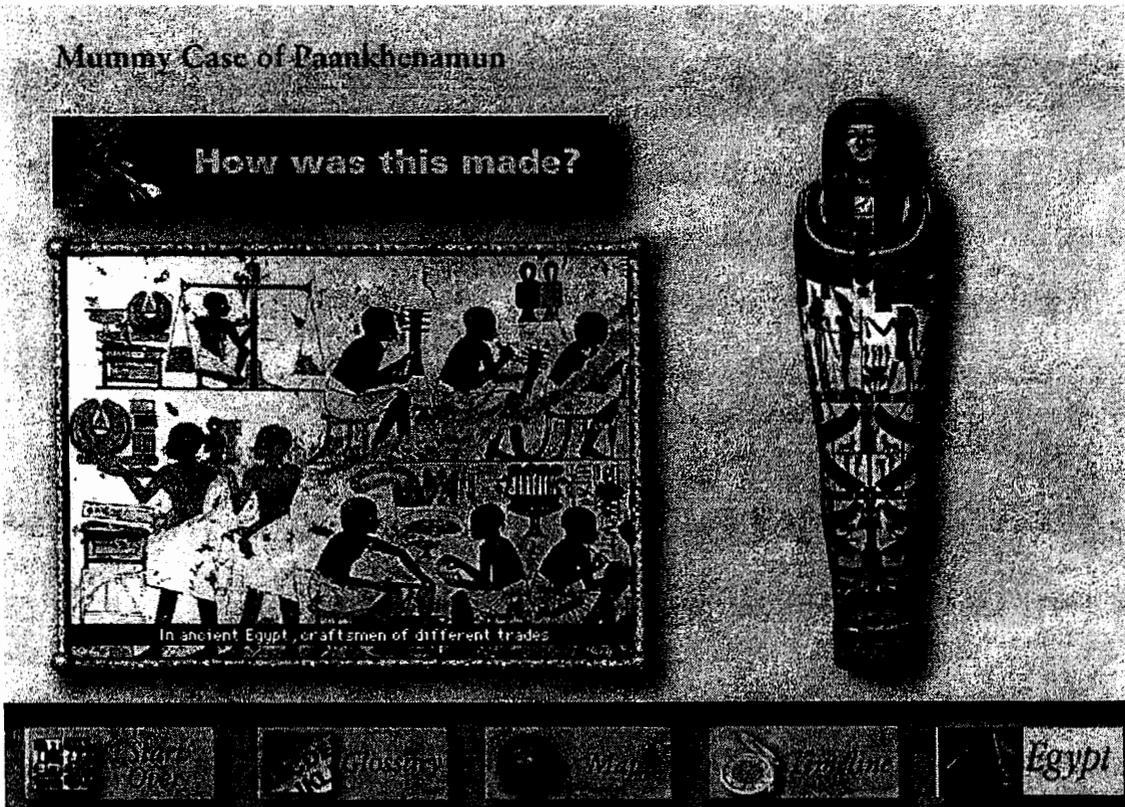
Clicking "See More" takes the viewer to a choice of tools.
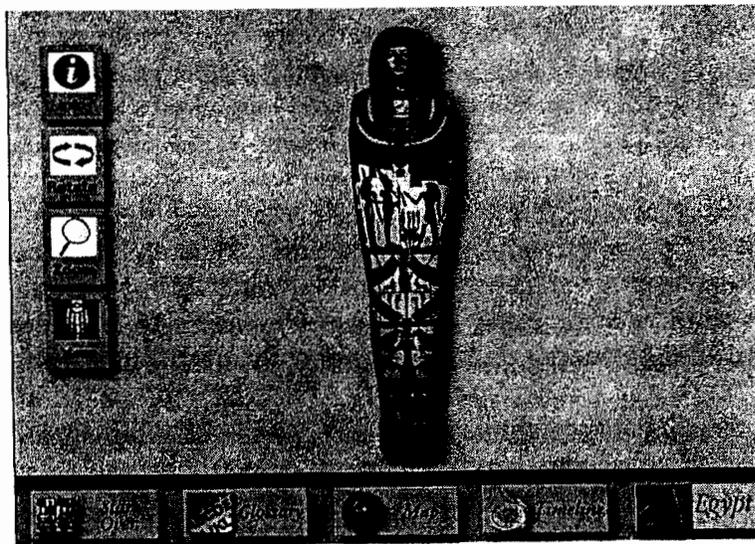
The tools we had previously used to zoom and pan were static in that they used a predetermined magnification or position of a still photo. Instead we created a dynamic pan that allows the viewer to drag a rectangle which describes the view across the surface of the object to create a more dynamic and satisfying experience:
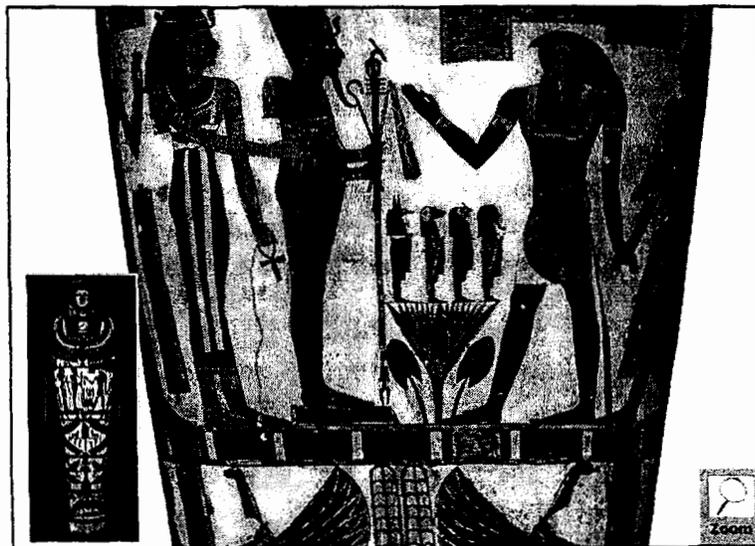
Another issue which confronted the designers and writers for *Cleopatra* was whether or not to include general information on the history and economy of each ancient culture. Large wall panels in the gallery present short texts giving the visitor some general background about each ancient Mediterranean civilization. Initially, this approach was applied to Cleopatra. But it became apparent that this would be making the program try to accomplish too much. It began to approach such encyclopedic programs as Perseus, which do this far better.

Instead, a few specific topics were presented to introduce the user to some basic and hopefully interesting facts: "Open an Etruscan tomb," "Meet the Roman gods and goddesses," "March with a Roman soldier." Rather than try to provide comprehensive background — inappropriate in this format — we resolved to entice the user to learn some basic facts which would be stimulating as background information for understanding Etruscan tomb implements, Roman bronze statuettes, or Roman armor.

Where appropriate, we expect to integrate video clips within the glossary, maps and timeline. These clips will include examples of rotating museum objects, and "tours" through such sites as Egyptian tombs, the Nile River, or the Parthenon. Live-action demonstrations will also show ancient techniques such as vase making, glassblowing, and bronze casting. Additionally, computer graphics techniques, such as three-dimensional modeling and animation, will be used to illustrate the form and structure, inside and out, of these ancient objects. The Getty Museum has generously loaned us footage from their laserdisc which fully describes ancient potting techniques.

In the process of this evolution, the writing became more oriented to images or rather to explaining the images than to illustrating texts. This promoted a more stimulating and closer relationship between the specialist writers and the technological experts. And through participation in the workshop the academic advisers became more interested in the project and worked more closely from the beginning of each section to suggest effective presentation of the material.

## Evaluation

An evaluation will be designed and implemented in a manner that clearly focuses on the goals and objectives of *Cleopatra* as well as how it relates to existing interpretive programs and publications. The evaluation will be designed to collect both qualitative and quantitative data on such aspects as visitor reception and audience usage.

Focus Group discussion might include the following :

How easy was the program to use?

&#9633; very easy &#9633; easy &#9633; hard &#9633; very hard

What features did you like the best?

☐ stories  ☐ glossary  ☐ timeline  ☐maps  ☐close-ups & picture tools  ☐ other

What could be improved?

What did you learn? What would you like to know more about?

What didn't you understand that could be made more clear?

Evaluation of the project will inform the museum's decisions about new programming, help the project staff to shape and refine existing programs, and provide tangible evidence of visitors' reactions to new technologies in the gallery.

## Further Organization

The design has been deliberately constructed with multiple uses in mind. The timeline, maps and glossary concepts can be applied to other galleries in the Art Institute in the future. The timeline concept could also include major world events that occurred in African, Asian, and Mayan cultures, thereby contextualizing the Mediterranean world. The interface design should become familiar to the visitor using new programs in the Institute's galleries, and any learning curve will thus be greatly minimized. As in the object section, the maps, timeline and glossary may also include video, and audio clips to enhance the information.

The *Cleopatra* team is codirected by Ian B. Wardropper, Eloise W. Martin Curator of European Decorative Arts and Sculpture and Classical Art, and Alan B. Newman, Executive Director of the Department of Imaging and Technical Services. Mr. Newman directs all aspects of the technical production including image acquisition and enhancement, software construction, and hardware systems development. Mr. Wardropper oversees the intellectual content research and will act as a liaison with outside antiquities scholars.

As in the development of the prototype, the team will use the same method employed in creating museum wall labels — curators research and write, Imaging produces the software, Publications edits copy, and Education plays a formative role in establishing and ensuring the quality and appropriateness of educational content, and accessible learning strategies for target audiences.

Because the project team has chosen object-based software development tools, and has the requisite in-house technical skills, there is true planning and development synergy from the earliest stages of the project to its completion. All of the previously mentioned departments, as well as the Director and

Deputy Director, have played key roles in the evolution of the design. Design and content changes are made quickly and interface ideas are easily explored. All software and hardware will be standard off-the-shelf wherever possible, so that the museum's own staff can maintain and modify the program and share it with other museums.

We expect that *Cleopatra* will be installed in late 1996, and we currently plan a discrete room at the entrance of the galleries with two workstations which can be used in relative private. Although the principal goal of *Cleopatra* is to provide a tool that serves visitors to the Art Institute, the museum will also seriously explore distribution opportunities for a subset of the material with an appropriate CD-ROM publisher. The project team also expects to exchange digital files of ancient art objects and related educational multimedia with other museums and the provide some form of the material on the Internet. Consequently, any success that *Cleopatra* enjoys will help to contribute to this process of exchange.