

The Gods Never Had It So Good: Partnerships, Standards, and Navigational Tools for Access to Images

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Introduction

Partnerships have existed in many forms throughout mythology and history. Perseus, in his efforts to defeat Medusa, joined with Minerva, who loaned him her bright shield, and Mercury, who loaned him his winged sandals. The hero's partnership with the immortals allowed him to approach Medusa while she slept and use the shield to reflect the hideous monster's image back upon her and turn her into stone. On a more practical plane, partnerships are formed every day in the business world to move the progress of business and fortunes from one plane to another. Partnerships, such as these, may be transient; others may become so permanent as to be unconscious facts of life.

Longitude, for example, is a standard which we accept as a constant which governs nearly every aspect of our temporal lives. Without it, however, we would be as lost in time and place as Umberto Eco's character, Roberto della Griva, from *The Island of the Day Before*. During the seventeenth and eighteenth centuries nations offered enormous prizes to anyone who could provide a solution to the problem of longitude. Previous methods, including lunar and other planetary methods of navigation were extremely haphazard and might result in the one time discovery of an island or trade route only to be lost in the next time someone tried to arrive at the same spot. Not until John Harrison developed an accurate and portable time piece were people able to traverse the globe with any certainty. Today we take this for granted and only think of the standard of longitude, governed by universal agreement and partnership from a central point, the Greenwich Observatory, when we travel great distances and need to reset our watches.

Standards, whether proprietary, imposed, or consensual, are another form of partnership in which two or more parties join together on a temporary or permanent basis for mutual benefit. In the library world the most evident combination of partnership and standards is the use of shared cataloging to ease the work load of all. Shared resources and cooperative collection development are two more examples of partnerships in the library world.

Forming Partnerships

The Cooperative Collection Management Coordinating Committee (CCMCC) is a body of Illinois library representatives dedicated to funding extraordinary resources which would often be too expensive for a single member to purchase. Any library which receives funds from the CCMCC must be willing and able to share resources purchased with the money with any other member in the state. In the fall of 1995, Architecture and Art Librarian and the Bibliographer for the Humanities at the University of Illinois at Chicago entered into a partnership and submitted a proposal to the CCMCC for the acquisition of the microfiche set *The Index of Ancient Art and Architecture (Index der antiken Kunst und Architektur)* published by K. G. Saur (München). The library would benefit from its the ability to provide a valuable collection of archaeological photographs to faculty and students in classics, fine arts, drama, ancient history and archaeology. The state would benefit by conserving funds through cooperative resource sharing.

During the course of the grant competition it was necessary to confirm that other institutions within Illinois would be interested in using the microfiche now or in the future, should the proposal win funding. The partnership was thus extended by enlisting the assistance of the Chicago Public Library, Southern Illinois University Library, Northern Illinois University Library, and the Library of the University of Illinois at Champaign-Urbana for this purpose.

As the review process progressed through long months it became clear that the "Universal benefit" component of the controlling principles of the resource sharing plan must be stressed, and some innovative form of sharing must be explored to increase the success of the grant. We decided to investigate the possibility of a partnership with the publisher of the microfiche. If we could secure permission from the publisher to make individual images from the microfiche available to other member libraries in the state it would strengthen our proposal. But how does one convince a for-profit publishing corporation that it would be in their best interest to allow a not-for-profit library to give away their pictures?

The Architecture and Art Librarian contacted Klaus Saur whom he had met at a conference in Essen, Germany, in 1993 and proposed a plan whereby everyone would profit. In return for the right to electronically transfer images from the microfiche to libraries within the state of Illinois, a comprehensive guide or item-level index to the resource would be constructed and maintained on the World Wide Web. Furthermore the publisher would benefit from a sale of the complete microfiche set, something which no single library in Illinois seemed inclined to do on its own. The librarian described his previous work on another large collection of images on microfiche (The Conway Library. Haslemere, Surrey, Emmett Publishing, 1987. The Conway Library Update, 1987-1992. Haslemere, Surrey: Emmett Publishing, 1993.), and suggested a few innovative elaborations. Dr. Saur agreed to these terms and became a new partner in the venture.

The Resource

Like many such bodies devoted to a humanistic discipline the Deutsches archäologisches Institut was founded in the nineteenth century, specifically, 1829. The home base of the academy, originally founded as a joint German-Italian institute in the Palazzo Caffarelli. Its headquarters were transferred to Berlin in 1870, and regional offices or abteilungen were established in centers of specific interest to the discipline. The Biblioteca dell'Istituto Archeologico Germanico (library of the DAI) is now located at 79 Via Sardegna, in the Ludovisi district.

The pictorial archive of the Institute exists as a study resource and contains negatives and prints which document archaeological sites throughout the Mediterranean area and date from the mid-nineteenth century to the present. It also houses photographs of museum objects which originated in the Classical world. In addition, cooperative agreements between the Institute individuals, collegial academies, and commercial studios, many of which began in the mid- to late-nineteenth century resulted in holdings from the Archiv Alinari (Firenze), Archives Photographiques (Paris), Warburg Institute (London), Rheinisches Bildarchiv (Köln), and kindred institutes in Athens, Berlin, Istanbul, Cairo, and Madrid, to name but a few.

K.G. Saur issues the microfiche in seventeen parts: Idealized Sculpture; Portrait Sculpture; Sarcophagi; Reliefs; Figurative Sculpture; Architectural Components; Inscriptions; Stucco; Painting; Mosaics; Topography; Vases, Terra Cotta; Bronze and Non-Precious Metal Objects; Small Art Objects, the VW-Stiftung Project, and the Italian Section. Some of the parts are self-explanatory, but others need a bit of glossing. For example, Bronze and Non-Precious Metal Objects include statuettes, mirrors (both large and hand-held), weapons, armor, vessels, and utensils; Small Art Objects include objects made from glass, precious stones, bone, ivory, gold, silver, and wood.

Even those sections which seem to be clearly organized contain subdivisions which may be anticipated only by an expert. Ideal sculpture includes male gods, female gods, other mythological figures, non-mythological statues, herms, idols, trophy monuments; fragments; ancient plaster copies, animals, fabulous animals, counterfeits, and museum collections. Sarcophagi includes Greek, Etruscan, Republican, Imperial, Jewish, Christian, and fragments.

The volume of Index and Commentary, edited by Lillian Balensiefen, helps to navigate through the wealth of visual information in a general way, but it does little for the person seeking a specific statue of Zeus, a mosaic depicting a pudgy putty riding a dolphin, anything from Halikarnosos or objects which may originally have been in Pergamon (Turkey), but are now at a museum in Berlin.

Forming a Plan of Action

Work began in earnest when the microfiche set arrived, and the Architecture and Art Librarian entered into a partnership with an Electronic Services Librarian at the University. We needed to honor our part of the partnership with both the CCMCC and K. G. Saur.

A number of questions related to access for such a large body of images needed to be addressed in the planning stage. What did the images on the microfiche represent? How could that information best be represented in data form? Were there models to which we could look? After all, we were not working in a vacuum, and other institutions and agencies had been looking at the problem to access of art objects and images for a number of years.

The easiest approach required us to ask ourselves what information seekers might know when they were looking for a picture. We arrived at a list which included the names of country, site (or city), monument, museum, or creator (We will rely upon the Union List of Artist Names for variant spellings of creator's names.), though for pictures related to classical archaeology the last mentioned element would be little known or completely unknown. Experience told us that patrons look for pictures based on content, such as materials, objects, or physical attributes (Terminology for materials, objects, physical attributes, etc. will be provided by the controlled vocabulary of the Art and Architecture Thesaurus..) Additionally, literary or iconographic references (Iconclass, will provide terminology for such access.) related to the object could be a point of access for a user.

Since access to the images on the microfiche would be provided by an interface mounted on a library web server a review of already extant data structures seemed a redundant exercise. We did discover during the process, however, that all those explored (See the Bibliography) shared common elements whether they used numbered fields, as in MARC, or words, as in the Dublin Core Metadata Element Set. Given that precision and a time factor were part of the goals of the project we thought it wisest to extract the most logical common elements from those structures reviewed. In this way others might build upon our work in the future. The following fields for data fit our purposes, although not every field will be filled in always.

Created by:

Object Name:

Monument Name:

Repository Name:

Site Name:

Descriptive term/s:

Iconography:

Photo Credits:
Fiche Number:
Frame Number:

Technical Aspects of the Project

The technical aspects of this project included several steps. First, useable maps will be mounted on a web server, starting with the continent of Europe, moving to the Mediterranean Basin and then on to individual countries,



and, in a few cases where monuments proliferate, such as Rome.



In some cases public domain electronic maps were available (http://www.vol.it/mirror/Map_collection (http://www.vol.it/mirror/Map_collection)). For others, we scanned from government maps. The scanner used was a Hewlett Packard Scanjet using Deskscan II software.

We constructed a prototype image database interface of this kind earlier using Adobe Acrobat. (<http://www.uic.edu/depts/lib/archartlib/paris> (<http://www.uic.edu/depts/lib/archartlib/paris>)) Response to the project from responsible parties told us that the need to import the Adobe Acrobat Reader (even though at no cost) might discourage potential users from searching the database. For this project we opted to use Map Edit to mark sites on a map.

In order to highlight the Image Map links, we brought the maps into Adobe Photoshop to crop, highlight, and add some text references to the buildings and structures upon which we intended to focus. One of the issues we encountered was the large file size created by color images. It was decided that color images were preferable, despite the larger file sizes they require. We cropped the images as much as possible and converted them into jpeg format to maximize compression and minimize file size.

The next step was to decide the architecture of the links to be created. An introductory page was created which links to several Maps. In some cases the maps were simply graphic image files, in other cases Image Maps. Once that was determined, Image Maps were created using Map Edit. Then the images were moved to the web site using ftp software.

Finally, the html files were uploaded, or created directly using a Unix editor. The CGI server software was already available on the server, so all that had to be done was to write the html code to launch the CGI Image Map software. Then we tested the site to check the links, completing the process.

Looking to the future, we expect to link a database program to our server software. Preliminary research has identified a number of software programs that may provide an adequate interface. One of the more comprehensive early lists was published by Stephen Muller, in his article "The cure for image disorder." (Muller, Stephen, "The Cure for Image Disorder.", Publish! 10 (Mar., 1995): 66-74.) Since that time, and the explosion of the World Wide Web, a number of database producers have developed web interfaces to their products. One of them we are considering is FileMaker Pro 3.0 along with either Lasso, or Tango. Other possibilities include Microsoft Access, Corel's Paradox, and Personal Oracle. In addition to these products, there are a number of Unix-based programs such as Glimpse which may also be considered. The microcomputer-based solution is probably preferable though, as it allows more control over the quality and updating of records in our computing environment. As no clearly superior product has emerged for this purpose, we expect to experiment with a number of different products.

As to desirable qualities in a database program, there are several. An easy-to-use fast search engine that finds not only key words, but allows searchers to restrict search terms in particular fields, or combinations of fields is certainly needed. The user may, for example, want to find not only all the architectural fragments in the database, but also restrict the retrieval to those in a particular museum, or only images depicting Olympic athletes.

The ability to support very large file sizes and preferably multiple file formats is another critical factor in image databases. The number of records and the searchable cumulative file size should, in an ideal environment, be infinitely scalable, so that, as the database grows, the user doesn't hit the wall on the search engine's capability. An ideal search should only be limited by disk storage size.

FileMaker Pro 3.0 answers these requirements. In addition, it also responds to our needs for a relational database and its ability to contain OLE (Object Linking and Embedding) objects. We began with the part of the microfiche related to topography. A single data record related to each specific archaeological site or monument found in the parts entitled Topography, VW-Stiftung Project, or Italian section will contain a thumbnail view taken from the microfiche.



If an object is found in a part of the microfiche, other than those listed above an icon will be added to the base data record to enable users to click on the icon and link them to retrieve other records which will provide additional fiche and frame number references, photo credits, locations of objects which may have been transported many miles away to another location, such as a museum. Likewise, when a particular site or repository contains a number of objects found in parts of the microfiche other than topography, icons (We discovered a marvelous source of appropriate high quality images for our icons. We downloaded them from a web site at the University of Haifa (Israel) located by Webseek: <http://disney.ctr.columbia.edu/webseek/> (<http://disney.ctr.columbia.edu/webseek/>)) will be added to the data records to allow the searcher to "click" on them and retrieve relevant records.

The need for a relational database to provide access to archaeological images should be clear to anyone who has skimmed the indexes of books about the discipline. For example a search for Heraclea must be conducted under Policoro, Eraclea, Siris, or Heraclea Am Siris, and Laodicea Ad Mare will be found under Latakia, Laodicea Syriae, Laodicea Syria, Ladhiquya, Lattaquiya, or La Liche, depending on the source in which you are looking. The same problem applies to individual monuments, such as the Tempio della Fortuna Virile (Temple of Fortuna Virilis) which is now called the Temple of Portunus, and was consecrated as Chiesa di Santa Maria Egiziaca by Pius V, and might be found under Santa Maria Egiziaca, S. Maria Egiziaca, S. M. Egiziaca or Church of Saint Mary Egiziaca.

We found FileMaker Pro 3.0 capable of addressing these multiple points of access. By creating individual records for each of these site or monument names and linking them together by Site IDs and Monument IDs users will be able to enter a text search and retrieve the images they require.

Hopes for the Future and Invitation for Review



The possibilities of our web site image database server seem endless at this time. We hope that it may provide efficient access to photos of our great Greek and Roman past. Users will be able to key in known values on a template for a strictly text interface search or they will be able to explore the landscape with the geographic navigator interface the server will provide. Our immediate goal is to provide a comprehensive index to all the photos represented on the Index of Ancient Art and Architecture. Other possibilities for the future may include adding pertinent bibliographic references related to sites or other kinds of important information.

Throughout our project we have formed obvious partnerships with others, including the CCMCC, Klaus Saur, and specific librarians in the state of Illinois. As the project takes form other Illinois libraries and librarians will join become our partners. Less evident partnerships also came into play. "Silent partners" include such people as Toni Petersen who guided the construction of the Art and Architecture Thesaurus; James Bower and Murtha Baca who did the same for the Union List of Artist Names; Henri van de Waal who conceived and began organizing Iconclass which was completed by Couprie, Tholen and Vellekoop; and the staff of the University of Texas' Perry-Castañeda Library who digitized the CIA maps and created a web site for them.

The most important partner of all, however, is the Deutsches archäologisches Institut, which, with its staff of photographers and photo archivists, has handed down to us over the years a visual record of our classical past. We hope that you will check in on our site (<http://www.uic.edu/depts/lib/archartlib/RomeDAI> (<http://www.uic.edu/depts/lib/archartlib/RomeDAI>)) from time to time as we build it. Who knows? You, too, may become a partner.

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