Technology’s Impact on the Information-Seeking Behavior of Art Historians

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Introduction

At a 1989 ARLIS/NA conference presentation in Phoenix, Deirdre Stam summarized all previous studies of “tracking” art historians that had been conducted since the 1960s. She explained this group’s information needs and information-seeking behavior as it has been studied from three perspectives: bibliometric tracking; autobiographical accounts; and user studies. Stam herself undertook the first comprehensive user study of art historians in her 1984 dissertation. Her study surveyed art historians in museums and colleges within the United States. Using both questionnaires and interviews, she sought to determine their modes of communication, maintenance of collegial networks, consultation with information providers, and how they establish authoritativeness in their information sources.

In 1986, the Getty Art History Information Program (then part of the Getty Information Institute) conducted the second comprehensive user study of art historians. The Getty study, using in-depth interviews and actual observations, sought to understand art historians from a much broader perspective, beginning with their formative experiences, educational and professional development, gathering of information, analytical techniques, and the organization and publication of their research.

Study Goals, Instruments, And Limitations

Since no comprehensive user studies of art historians had been conducted in the past fifteen years, I chose this issue as a research topic for Professor Betty Jo Irvine’s “Seminar in Art Librarianship” course at Indiana University. Recognizing that this study would be unable to cover the art historian’s entire information-seeking process in the depth explored by the Getty study, I focused instead on the aspects of the research process upon which the art librarian could have the greatest impact, those involving the gathering, organization, and analysis of information. Survey instruments included both a questionnaire and follow-up interviews. The questionnaire was designed to understand art historians’ research process through their methodological approaches, resources they consult, their use of computers, how they organize information, and any barriers they confront during these processes. The questions were intentionally open-ended so that respondents could discuss their process and not be forced into choosing from pre-defined categories (for the complete questionnaire, see Appendix). Follow-up interviews, ranging from thirty to ninety minutes, were used to clarify and expand on some of the responses.

The limitations of the study included barriers of time, geography, and survey instruments. The study had to be completed within a four-month period. In order to both survey and interview the participants, they needed to live within an hour’s driving distance of the author and be willing to contribute to a graduate project. Though this limited the participants to art historians based at a single mid-western research institution, art historians from both museum and academic environments, the primary users of art libraries, were included. Additionally, only eleven of the fifteen participants were available for interviews. While time constraints prevented a thorough testing of the questionnaire, it was tested on at least one art historian before the study began. Unlike the Getty study, which used software for electronically coding verbal responses, the quantification and summarization of data were processed manually in this study. Despite these limitations and the exploratory nature of this study, it is valuable for the insights it provides as to how art historians have adapted to technological change at the close of the twentieth century, and it helps us plan for the immediate and projected needs of art historians at the beginning of the twenty-first century.

Participant Profiles

Fifteen art historians participated in this study. The study sought to correct a weakness of the Getty study, which involved only art historians studying within purely Eurocentric areas. The present study included one art historian studying Africa and the Native Arts of the Americas and the South Pacific, one studying only Africa, and two studying China. Furthermore, inclusion of a museum educator and paintings conservator brought insight into the needs of the more peripheral patrons of the art library. The other nine participants fell into the following areas: one in Greek and Aegean art; one in Greek and Roman art; one in Early Christian, Byzantine, and Carolingian; one in Romanesque and Gothic; one in seventeenth and eighteenth century Europe; one in modern Russia, two in modern America; and one who dealt with theory and criticism in all periods. The average number of years spent in the art history profession by all respondents was twenty-two. Table 1 divides the number of years into four ranges. The majority, those who fell within the third range, had between twenty-one and thirty years of experience in the profession.
Current research areas of interest by medium included the following: works on paper; oil painting; vase painting; sculpture; architecture; mosaics; artifacts; and illuminated manuscripts. Subject matter studied took a wide range of divergent paths from research on specific artists to art museum collection histories, New Testament imagery, dance, urban planning, art education, traditional medicine and art, conceptualizations of artists in their societies, divination arts in Africa, medieval cities, monastic reform movements, ancient sculpture production and technique, reception of classical art in post-antiquity, theatre design, historiography of Western art, and visualization of images for the blind through the use of a vocabulary based on the other four senses. As would be expected, participants were involved in a wide variety of methodological and theoretical approaches, often employing at least two or more of them within a single research project. Table 2 gives a breakdown of these approaches and the number of art historians that mentioned using them.

Table 2

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<th>Methodological/Theoretical Approaches</th>
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<td>connoisseurship</td>
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The majority of respondents (60%) used both connoisseurship and/or iconography in their research. Application of cultural studies (33.3%) and gender issues (26.7%) were the next most commonly used approaches. Less common approaches, but used by at least two or more art historians, included materials and construction, biographical, scientific analysis, social, didactical, audience reception, and archaeological evidence.

If the approaches listed were analyzed in terms of whether they fall into newer or more traditional methods, it would have to be concluded that they are steeped very much in the tradition of the core activities that have been a part of the profession since its inception. With so much discussion in the art history field today revolving around how heavily the ‘new art history’ has influenced the profession, this study has to address how well this group represents what is happening in the profession throughout the United States. The more traditional approaches of this group may be attributable to three primary factors. First, the respondents were all based in the Midwest and the appearance of less traditional approaches seems to be more dominant in universities on the East and West coasts of the country. Second, it should be noted that seven of the fifteen respondents were based in an art museum. The institutional characteristics of museums tend to steer curators toward more traditional art historical approaches, as Susan Roepker emphasizes in her article about the differences between art historians in museums and academia. Third, because ten of the fifteen participants had been in the profession for more than twenty years, their research methods were solidified early in their professional careers, before the 1980s, when traditional methods were still the norm.

It is difficult to assess how well this group represents the majority of art historians, but their responses make a strong argument that there are still plenty of traditional art historians practicing in the field today. As Lyn Kornic emphasized in her 1997 article about the ‘new art history,’ by “talking with our users,” we will learn that “traditional art history materials are still needed.” As art librarians, we need to assess the constituencies in our own institutions to determine how our collections should develop. Erika Dowell suggests that by reviewing course descriptions, their syllabi and accompanying reading lists, we can gain a better sense of how the ‘new art history’ impacts our patrons’ needs.

Information Gathering:
People, Places, And Things Consulted

In order to understand how art historians go about gathering their information, participants were asked to describe, as thoroughly as possible, their research process in terms of the people, places, and things that they consulted during a recent project.

People

People were defined as anyone consulted during the research process. By far, the most frequently consulted person was the art librarian, cited by twelve participants (80%) in the study. Stam’s study also confirmed the scholar’s use of the art librarian, albeit infrequently and primarily for resource discovery rather than subject knowledge. Art historians in the current study expressed a continued but limited use of the librarian’s knowledge. The second most frequently consulted person, the colleague, was mentioned by at least six respondents (40%) and reflects the art historian’s reliance on what Stam referred to as the “invisible college” or a network of scholars who communicate at least three or more times a year. In the Getty study, one
participant noted that the colleague is often the most current source for information that has not yet made it to the publication stage.

Less frequently, art historians reported using curators (13.3%), archivists (6.7%), and archaeologists (6.7%) as resources. One art historian reflected on the invaluable nature of an archivist to her research by commenting that she is “absolutely at the mercy of a good archivist” in helping her understand the organization of a particular archive and learning how to document archival resources. Interestingly, one art historian even mentioned family and friends as a resource (6.7%).

Places

Places were defined as anywhere information is sought during the research process. Even for those who said they make no use of librarians, libraries were used by 100% of the participants. The Getty study identified the library as the place where art historians sought out their secondary sources or bibliographic materials. In the current study, library use varied greatly. Some art historians use it only to view basic reference resources. Others use the library to compile an initial bibliography on a topic from books and journals, while others may seek images for comparison. Shelf browsing, while cited as a source of information by only two of the respondents, was nevertheless valued as a way to explore an unknown topic by visually scanning the library shelves for similar materials nearby. For the art historian in theory and criticism, shelf browsing was often the only way she could pursue her areas of interest since their nature was so interdisciplinary and it was difficult to search catalogs for appropriate subject headings. She stated, “Access to the stacks in the library was invaluable. Often, when locating a valuable source, I would find on the same shelf other relevant sources of which I was not aware.” Archives were the second most frequented place (26.7%). Several of the art historians commented on the importance of primary resources to their research and particularly the need to visit these resources in person. These resources were valued both for the content they contained and as artifacts.

Other places cited for acquiring information included the Internet (20%), conferences (20%), museums (13.3%), and the library’s interlibrary loan service (or ILL) (13.3%). One respondent commented that for her, ILL was “absolutely, utterly, life-giving, and life-saving aspect” of the university library’s services. Since her particular research area was obscure, she acknowledged that the library could not possibly be expected to collect all the major resources she would need, but she did expect to be able to gain access to those resources in an efficient manner. Not insignificantly, archaeological sites were listed as a resource for art historians in ancient areas (6.7%). Since their research is often the first interpretation and publication of research about an object or site, the archaeological site is typically their first and primary resource.

Things

Things were defined as anything the researcher consults during his/her research process. It was necessary to differentiate resources from their formats. For example, when a resource was mentioned, it was also noted whether it was used in print, microfilm, or electronic formats. Specifically named resources were also separated from general sources, so that Grove’s Dictionary of Art, for example, could be tabulated separately from monographs. The interview provided further information about the most valuable features of each resource.

Among general resources, print monographs were cited most often (66.7%). Monographs are useful for their ability to bring together comprehensive information on an artist, period, or culture. According to the respondents, bibliographies in monographs are the first place where art historians are likely to begin their research. Also highly valued are the high-quality images monographs contain. While images may be a book’s most valuable asset, they are often its best-kept secret, since few comprehensive indexes exist for discovering them. In addition, print and electronic journals, when available, were a regularly used resource (40%), valued for their footnotes and bibliographies. Some respondents mentioned the object as the first resource consulted (26.7%). Art historians may spend a great deal of time studying the object in person before consulting resources about the object. Just as with the introduction of photographic surrogates to the study of art history, the introduction of digital surrogates has not replaced the need to see the original object. Other less-used resources included exhibition catalogs, newspapers, reference books, photographs, and curatorial files.

Among specifically named sources, only two were mentioned by more than one art historian: Iconclass and the Dictionary of Art. These major reference works continue to provide relevant information for a broad range of users. With the introduction of the electronic version of the Dictionary of Art, its value has increased by allowing researchers to refer to it over the Internet long after library doors have closed. Microfilm received a mention by only one art historian (6.7%) as being a necessary part of her research: many of her archival research materials were accessible only in this unwieldy format.

Other resources consulted include Web sites that art historians have found useful and exemplars of what they would consider ‘scholarly’ Web resources. These included Justin Kerr’s Maya Vase Project® and Oxford University’s Beazley Archive online. Kerr’s Web site, hosted by the Foundation for the Advancement of Mesoamerican Studies, is an image and text database of information on Mayan vases. The Beazley Archive, online since 1998, is a selection of classical antiquities from its site located in the Ashmolean Museum. Both Web sites have exploited technology’s advantages over print. Also, both contain overall and detailed images. These detailed views allow the objects to be studied from a variety of angles and limit the possibility of damage due to excessive handling when viewing the object in person.

Information Organization:
Recording, Sorting, Storing, And Analyzing

Most respondents considered themselves “primitive” or “low tech” during this stage of their research. Many had imagined that their fellow professionals had developed more sophisticated approaches to their research than they had. Yet, surprisingly, notebooks, loose-leaf binders, and index cards were still favored by a significant number of respondents (53.3%). These tools were used for recording handwritten notes, compiling bibliographies, and filing computer printouts and copies from books. Subject dividers were mentioned as a way to sort
information within these notebooks, and plastic sleeves were found to be useful for housing photographs. Index cards were favored for their small size, which allows for discrete pieces of information to be isolated and rearranged easily. As one respondent noted, "Over the years, I’ve organized information in a variety of ways, but I keep going back to index cards, as they give me more flexibility."

Additional recording devices included the computer (13.3%), cameras (13.3%), and thumbnail sketches (6.7%). In this study, a few art historians have only recently begun recording notes directly from a resource into the computer. The advantage for one researcher was that she could easily bring her notes with her when traveling. An art historian in ancient art expressed an interest in image scanning programs that would electronically record and store a three-dimensional rendering of an object onsite, although the substantial amount of computer memory required for this program is often a barrier. She is planning to begin using a digital camera for documenting objects and compiling a database for personal reference. Thumbnail sketches of objects were useful for another researcher when photographing them was not an option. This compositional sketch allows her to recall the image in her mind long after viewing the work in person.

Filing and storing of information, once recorded, was often done with manila folders (40%) for organizing loose-leaf papers, photographs, and printouts. These folders were then stored in cabinets or file boxes. File cabinets were also useful for storing and organizing slide collections. Only four respondents (26.7%) mentioned electronic folders as a means to store notes. One of the four respondents stores her information in folders by author’s last name. This same researcher recently purchased Endnote™ software by Thompson Scientific in the hope that it will allow her to store and retrieve her bibliographic information more efficiently.

Nearly all the respondents mentioned using computers during the writing or composition stage of the research process. Word processing programs allow researchers to compose, edit, and rearrange their ideas easily. One researcher, who felt so strongly about its benefits, deemed it “the greatest invention of mankind.”

With the exception of word processing, art historians find computers to be significantly less useful for organizing than for gathering information. In the Getty study, scholars mentioned a reluctance to store and organize all their research materials on the computer because of a need to manipulate more information than can appear on a conventional screen at any one time. For example, in a traditional workspace, images and notes can be spread out across a large table or on walls and viewed as a whole. However, once this information is stored on a computer, the only way to compare sets of information is to dig deeper into the computer by clicking on windows and tabs that bring some information to the forefront only by relegating other information to the background.

Art historians continue to be reluctant to view and analyze their information on computers today because screens have not evolved to a level of being able to emulate the benefits of recording and manipulating notes on paper. These paper systems are still in use because they continue to serve researchers’ needs, and because researchers are comfortable with them. The fact that art historians, in this study, have not adopted a great deal of technology during this stage of their research does not mean there is not a desire or willingness to do so. Rather, there are concerns that time spent learning and working with the new technology will not justify its benefits. One respondent mentioned a desire to use one of the new scanning pens for highlighting and digitally recording texts in books. Barriers to her taking this step were concerns about the time it would take to scan the text, clean it up, and file or index it for storage and retrieval.

Use Of Art Librarians

Art historians were asked to what extent they consult librarians during their research process. Most respondents consulted them infrequently and only for very basic needs such as tracking down resources within the library or through ILL and sometimes for demonstration of a research tool. Additional useful services provided by the art librarian included notification of new resources and involvement in collection development.

Librarians were consulted more frequently for materials outside of the art historian’s area of expertise. One respondent commented, when visiting another city, “I relied on local librarians to help me conduct work on old census records, or other public records that I was not familiar with. My local librarians were useful in telling me where these census records could be consulted, and what kind of finding aid existed.”

Three art historians rarely, if ever, used art librarians for a variety of reasons, including: the museum educators “quick and dirty” approach does not allow him time to consult with a librarian; the museum conservator does not typically use art libraries but rather technical libraries, in which case, she might consult a technical librarian; and the art historian in theory and criticism finds her topics are often so complex, it is difficult to verbalize her needs to a librarian. Infrequent art library patrons are certainly worthy of our attention and possible solutions for addressing their needs might include consultation with museum conservators about the technical literature that would be useful in performing scientific analysis of artworks, becoming more involved in the museum’s education programs and determining if the library could partner with those programs, and learning more about theoretical and critical approaches in art history to better understand and facilitate less traditional research approaches.

Impact Of Computers On Research

While respondents mentioned use of computers during information gathering and processing, this study sought to determine the full extent of computer use. Respondents emphasized that access to online catalogs, both local and shared, has been particularly valuable. A participant enthusiastically expressed “I love the big OCLC-type databases. They are a fabulous gift of the computer age.” Online periodical indexes were also praised. Less frequent, but valuable uses for the computer included e-mail, CD-ROMs, drawing programs for making maps and plans, material analysis, and storing images.

Internet searches for artists or artworks, using general search engines such as Yahoo or Google, often ended in frustration. Participants sought content about or images of a particular artwork on the Internet but often found search results to be useless. As one respondent commented, “I find that most open Web
searches pull up too much irrelevant information, or Web sites that are ‘thin’. Often I end the search feeling like I have wasted a lot of time and learned very little.” Many were unsure whether the resource existed online or whether their knowledge of how to search for it was inadequate.

In addition, computer use was gauged by asking participants how much of their research used print resources versus electronic. Respondents reported that 87% of their research continues to be with print resources. This could be attributable to either a lack of in-depth scholarly resources online or online resources that contain poor quality or very few digital images. As funding often dictates the priorities for digitization projects, scholarly or specialized resources are neglected because their appeal may not be as broad as the general educational resources. For those that have been digitized, most contain only thumbnail or low-resolution images. Too frequently online resources lack a substantial number of images (e.g., online Index of Christian Art) that are crucial to art historians’ methods of inquiry. At least for the present, the primary benefit of electronic resources lies in their role in resource discovery, rather than as surrogates for the originals. As one scholar noted, the “electronic resources are used to help me find the print resources.” This points out the continued value of print resources and the need to maintain these formats in tandem with their electronic counterparts.

**Barriers To Overcome And Wishes To Fulfill**

Art historians were asked what they felt were the greatest barriers to their research. In addition, they were also asked to create a wish list of anything that would improve the quality of their research. The wish list concept was borrowed from the Getty study because it was found to be very useful in prompting art historians to envision possibilities beyond the limitations of present research tools.

The participants in this study were not shy about vocalizing their frustrations with barriers that keep them from conducting their research in an efficient and effective way. Time was emphatically stated as the number one barrier to the art historian’s research process by 100% of the respondents. Art historians expressed a need for more time to gather resources, visit archives and museums, and analyze their data.

Travel money was the number two barrier (46.7%), travel to research centers and viewing artworks in person being a real necessity. Image access (33.3%) and copyright restrictions that make it prohibitive to publish those images (13.3%) were the third and fourth barriers most often mentioned. As one scholar noted, there are many barriers involved in using images, including determining who owns the rights to the image, finding private collection contact information, preparing requests for reproduction rights, ensuring that museums respond to requests, and paying a fee for image use, even if publishing in a non-profit scholarly journal. After reviewing most copyright policies, this scholar felt that the only way to protect herself from violation of copyright is to publish without images.

Other barriers include a dearth of published information in particular areas (13.3%), access to archives (6.7%), and the limitations of the Web (6.7%). Issues surrounding access to archives and the limitations of the Web were mentioned previously, but their re-appearance in the list of barriers emphasizes their importance to art historians. While some art historians are eager for more print publications to be made accessible online, others simply want to see an increase in print publications in their area of study. This is a prevalent problem in areas dealing with objects from Africa, Oceania, and the Americas as well as a concern in the conservation field.

Once the art historians were able to vent their frustration about the above-mentioned barriers, they were ready to dream. Their dreams were not outlandish, unrealistic dreams, but legitimate and rather conservative. These dreams have the potential of being fulfilled in the not too distant future if their voices are heard. Table 3 is a list of those wishes. Wishes common to both the Getty study and this study include: access to online journals and image databases; software that can sort and relate information in complex ways; and a desire for museums to simplify and reduce the cost of reproductions. Two wishes expressed in the Getty study that did not reappear in this study were the ability to use library catalogs from the scholar’s desktop and more information on the organization and use of these libraries. These needs have been partially, if not fully, met by online catalogs and library Web sites.

**Table 3**

**Wish List Items**

- online item-level inventory of a museum’s works-on-paper (with visuals)
- online dissertations and image databases
- access to more printed scholarly journals (since the online versions tend to lack images)
- online index, abstracts, and full-text of scholarly journals
- better access to museums and libraries in Eastern Asia and more thorough indexing of their journals
- way to easily store and organize bibliographies and notes with images on the computer
- access to the online version of Dyabola
- ability to search by more complex subject terms on the Web (e.g., art history subject with a subject in literature)
- online papers of presentations held at art conferences such as CAA
- streamlining of museum reproduction process

**Summary and Analysis**

In reviewing the results of this study, we need to consider how art historians’ information-seeking behavior today reflects the current state of their profession and technology’s impact on their research process. More importantly, we must identify the most pressing needs and how the roles of the art librarian must change to meet those needs. Despite concerns that the new art history is supereceding the canon, many art historians today are still very much involved in traditional methodologies, requiring ongoing support of resources that help the art historian better understand artwork(s) from a multitude of perspectives. At the same time, we must expand our definition of the field and take creative approaches in meeting the needs of those art historian seeking their resources outside the traditional boundaries of the field in areas such as criticism, philosophy and literature.

**Who, Where, And What**

In reviewing the people, places, and things consulted during the scholar’s information-gathering stage, art librarians were
...ar the most regularly consulted person, though in a limited capacity. Art librarians have been used almost exclusively for tracking down resources, acquiring an unusual resource through interlibrary loan, or demonstrating how to use a new electronic tool. Though many art librarians possess subject expertise in particular areas, art historians typically consult colleagues in their field rather than art librarians and will continue to do so for the foreseeable future. But, art librarians will increasingly be sought after for their expertise in navigating rapidly multiplying electronic resources. By introducing and training art historians on software that extends these resources' capabilities, such as bibliographic management software, art librarians can increase a resource's value and help streamline the art historian's research process. Art librarians can also help art historians mine the resources of the Internet more effectively. As sites evolve that meet scholarly standards, such as that exemplified by the Kerr and Beazley sites, art librarians will want to treat them as extensions of their own institution's resources by alerting patrons and providing a link to them from the library's Web site.

As more fields expand their interdisciplinary nature and access to OPACs over the Internet increase the art library's visibility, our patron demographics will change. Scholars outside the discipline will need help understanding access points to art historical resources. Keeping abreast of user studies in disciplines related to art history, such as the humanities and history, will help us understand and provide better service to the non-specialist patron. Likewise, we must stay abreast of user studies on less frequent visitors, including not only museum conservators and educators, but artists as well.

As the primary place for consultation during the research process, the art library is valued for its secondary bibliographic materials, monographs, and image resources. On-site visits to the library may decline as there is an increase in the ability to search more catalogs, indexes, reference works, and now many full-text journals online from home. The art historian will continue to need to visit the library to view primary archival materials and monographs, and to browse library shelves as inspiration for new ideas for research topics. Art historians will continue to use monographs in print form until e-books can attain the same level of image quality and quantity. Because interaction with the actual object is greatly valued by art historians, they will continue to visit museums in person regardless of the availability of images over the Web. Libraries and museums will be challenged in tracking both actual and virtual visits and in developing a complete profile of their patrons.

Technology: Removing Some, But Not All, Barriers

Technology's impact on art historians' information-seeking behavior and needs over the past fifteen years is striking when comparing their computer use between this and the 1986 Getty study. In 1986, art historians were just beginning to feel comfortable using computers for word processing. OPACs were relatively new, public access to online abstracting and indexing services was not yet available, and e-mail was available to only a few scholars in computer science or the government sector. Today, art historians are using computers for the initial searching of online catalogs, browsing footnotes and bibliographies in online periodical indexes, searching on the Internet for images or perhaps information on a contemporary artist, consulting by e-mail with colleagues, and finally, for structuring and composing their ideas using word processors.

Surprisingly, despite extensive use of computers during the scholar's information gathering and word processing stages, organizing of information has been largely unaided by computers. Index cards, loose-leaf binders, and notebooks continue to be the recording and storage tools of choice in the field. Until it can be convincingly demonstrated to art historians that an organizational system on the computer can perform the same functions as these traditional tools, these tools will continue to serve their needs for some time to come.

Technology has aided but not resolved the art historian's barriers of time, money for travel, and image access. Theoretically, technology should save time in the research process, but only after an initial investment of time is spent in the beginning to learn a new program. Encouragement is often needed during this stage to push researchers beyond their comfortable habits. Since a great deal of time is spent locating and visiting resources, art libraries should participate in and promote consortia that bring related resources together in more centralized and systematic ways. One example of such a consortium is the Research Library Group's Cultural Materials Initiative. This initiative seeks to "develop a collective digital resource of cultural materials that will provide electronic access to a critical mass of cultural research resources." Again, access to electronic surrogates may not replace the need to see primary materials in person, but it can help confirm the existence of the materials, provide introductory material to peruse before traveling, and offer material to refer to after the visit. Money for travel is a challenging barrier to address, but by reducing the time spent in locating resources and performing preliminary research, travel time and costs may be reduced as well.

Growing Need For Access To Digital Images

Greater access to images is technologically feasible, but copyright restrictions continue to hinder this access. It is hoped that the creation of image consortia, such as AMICO or the more recent Mellon Foundation initiative called ArtSTOR, will help simplify the permission process and allow art historians not only to gain access to a larger pool of images, but also to be able to liberally illustrate their research publications with them. Art librarians must be actively involved in the development of these consortia. Particular attention should be paid to the reproduction policies of the consortia and to the costs scholars will have to incur to access and use these images for educational purposes.

It is uncertain whether museums and slide libraries will continue to host their collection information on their Web sites or join image consortia so that their collections can be searched along with hundreds of others. More than likely, they will do some of both. Museums should strive to unveil collection information on their Web sites in stages, beginning with basic descriptive information and reference images, eventually adding curatorial research notes, highly detailed images, and links to related resources throughout the Web. Museums and slide libraries should also consider providing public access to information that is tracked, but not usually considered useful to anyone outside of the organization. A prime example would be the reproduction information for their images or objects. Slide libraries often track the source of copystand photographs and
museums often track information about which publications have used an image of an object in their collection. This source and publication information would provide art historians with an instant bibliography to begin new research topics.

Not willing to wait for museums or image consortia to compile comprehensive art databases on the Web, some art historians have taken matters into their own hands. Kathleen Cohen was one of the earliest Web publishers to compile an image database for teaching art history courses. This database was initially published during the early 1990s, when digital publishing rights over the Internet were still largely undefined. Since then, digital copyright laws have left such publication projects vulnerable to prosecution even when the purpose of the site is purely educational.

Art historian Charles Rhyne has taken advantage of architecture’s exemption from copyright protection because of its status as a public domain resource. Rhyne has photographed and provided access to images of the Getty Center in Los Angeles from his own Web site: http://academic.reed.edu/getty/. This site is notable for the number (ca. 800) and content of the images. Rhyne went beyond the idea of capturing the building’s most interesting features and captured images of potential use to a wide variety of groups. Image categories include signage, maps and aerial views, distant views and panoramas, construction, travertine, stairs and ramps, entrances, doors and windows. It is easy to see that these images could appeal to engineers, interior designers, or land planners, in addition to art historians. While the site offers an annotated bibliography and published critical reviews of the building, it does not contain large amounts of descriptive text for the images. Despite this lack of description, the site makes a strong statement about the information we can acquire from an examination of images.

Art librarians can be instrumental in supporting and providing long-term access to these teaching resources. Art librarians within academic institutions who work closely with faculty should communicate an interest in linking to or even hosting Web sites designed for individual courses. Unfortunately, many of these Web sites disappear shortly after the course has ended for a variety of reasons: no one is willing to continue hosting them; the faculty do not recognize an audience for the site beyond those in the course; or copyright restrictions prevent access by anyone outside the class.

It may be argued that technology has shaped not only the stages of art historians’ research processes but their very methodologies. Christopher Bailey and Margaret Graham make this suggestion in their 2000 paper entitled, “The Corpus and the Art Historian.” In a survey they conducted of 121 art historians, 47.1% believe access to digital images has affected their work methods and at least 24.8% believe it has affected their research interests. The percentages, while not large, are significant enough to warrant further monitoring; future user studies of art historians should address these issues.

User Studies Outlook

It is imperative that future user studies of art historians be conducted more regularly, at least every five years, to keep up with the pace of technology. While such studies could take a variety of approaches, they should at minimum include more art historians working on non-European topics whose information needs are often different from their Europe-centered colleagues. Because computers are now an integral part of the research process, it would be instructive to include human computer interaction (HCI) tests in future user studies to identify how art historians respond to particular interfaces and computer-mediated resources. It would also be instructive to look at art historians during graduate studies when research habits are being formed and influenced by available resources, art librarians, and curriculum.

Most importantly though, because of the limitations in all user studies, it must be remembered that the information search is a highly personal one and does not always follow universal patterns. This is particularly true of art historians due to the shifting boundaries of their field and the tendency to incorporate materials from a multitude of other disciplines into their research. Furthermore, since the newer methodologies will continue to encroach upon the traditional, a majority of the resources used to support the art historians’ research will increasingly be found outside the art library setting. Whatever services art libraries provide, they must be flexible enough to allow for the idiosyncrasies of the discipline and must strive to make the art historian’s research process more efficient, creative, and enjoyable.

Notes


3. The Getty Information Institute has been subsumed into the Getty Research Institute. The 1986 study is cataloged as: Elizabeth Bakewell, William O. Beeman, Carol McMichael Reese, Object, Image, Inquiry: The Art Historian at Work. (Santa Monica, CA: Getty Art History Information Program, 1986).

4. Comprehensive is defined here as any study that deals with several stages of the art historian’s research process. There have been several studies conducted in the past fifteen years that have addressed individual stages and/or resources art historians consult during their process, such as Christopher Bailey’s study on how art historians are using digital images. Christopher Bailey and Margaret E. Graham, “The Corpus and the Art Historian,” conference paper presented at CIHA London 2000, Section 23: Digital Art History Time, September 3-8, 2000. http://www.unites.ugam.ca/AHWA/Meetings/2000.CIHA/Bailey.html (accessed 4 April 2001).

5. Years in profession was considered to begin with graduate school education.


9. The Maya Vase Project can be found at: http://famsi.saiph.com:9500/. Its strength lies in two primary features: 1400 images of peripheral photographs of vases (roll-out photographs of cylindrical objects) and the ability to search on information particular to the area of study such as vase type (e.g. codex, molded, polychrome); dimensions (e.g. height, diameter, circumference); figure count; workshop; and iconography. On this site, vases are brought together for comparison in a multitude of ways that are difficult to accomplish in print or even in an exhibition.

10. The Beazley Archive can be found at: http://www.beazley.ox.ac.uk/BeazleyAdmin/Scrip2/default.htm. The Web site’s benefits consist of images and comprehensive text on the styles, periods, uses, and production of pottery, gems and sculpture. It is also supplemented by an illustrated dictionary, bibliography, and history of the collections. Hyperlinks allow researchers to seamlessly move across a variety of resources that would otherwise require a great deal of time to gather and browse.

11. These figures reflect responses from only twelve of the fifteen respondents.

12. See wish list section pp. 103-109 in Bakewell, Beeman, Reese, Object, Image, Inquiry (see note 3 above).


Appendix

Questionnaire
1. Please list title and departmental or organizational affiliation.
2. How many years have you been in the art history profession?
3. Please list current research areas of interest.
4. What art historical methodology(ies) do you typically use in your research (e.g. connoisseurship, iconography, semiotics, gender studies, etc.)?
5. Please describe, as comprehensively as possible, your research process. Include what stimulates your interest in a topic; how you go about gathering information (e.g. people, places, types of resources consulted) and how you organize your information (e.g. notebooks, index cards, personal computer, etc).
6. Do you use librarians in the course of your research process? If yes, at what stage do you consult them and for what purpose? If no, please explain.
7. At what stage in your research do you utilize computers and for what purpose (e.g. online indexes or bibliographies, locating images, word processing, etc.)?
8. Approximately what percentage of your research is done with printed sources? Electronic sources?
9. What are the greatest barriers to your research, (e.g. time, money, access to images, etc.)?
10. If you were to create a wish list of tools that would improve the efficiency and quality of your research, what would it include?