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VRAB Volume 37, Issue 1: VRA Twenty-Seventh Annual Conference, Part II

Abstract

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 - User Group: MDID
 - User Group: IRIS

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visual resources, 35mm slides, digitization, image management, collection access, facility planning, technology, career transition, training, cataloging, metadata, databases, digital asset management systems, IRIS, ARTstor, Getty Vocabularies, MDID, Cataloging Cultural Objects (CCO)

VRA Bulletin

Visual Resources
Association



VRA Twenty-seventh Annual Conference, Part II

Spring

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On the Cover:

Michael Lee-Chin Crystal, Royal Ontario Museum, architect: Daniel Libeskind (Polish, 1946–), completed 2007, site: Toronto, Ontario. Photo courtesy Studio Daniel Libeskind, copyright Royal Ontario Museum.



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Association News



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Notes from the President

December 2009

During this busy, festive, end-of-semester, end-of-year season, holiday preparations take center stage. You've already renewed your membership for 2010 and sent in your dues payment. You voted in the Executive Board election, and even mailed off your paper ballot to approve the revised Association Bylaws. Registration for our 28th annual conference is not open yet, and it seems too early to book a flight to Atlanta now—after all, March 17 is three months away. So it's all too easy to push your Association membership temporarily to the back burner.

The Romans had a two-faced deity named Janus (from whom our month of January appropriately takes its name). Janus was the god of thresholds, and hence of changes and transitions; with his two faces, he looked simultaneously forward, into the future, and backward, into the past. I suppose that might make him a good symbol for an organization, and a professional field, both of which

find themselves in the throes of momentous, and often disconcerting, transformations. Sometimes it's difficult to face the unknown future with equanimity, especially when so many of the changes we are navigating seem to have negative consequences. It's all too tempting to look fondly backwards to "the way things used to be."

But life in the VRA is constant and ongoing. For most of us, that day-by-day continuum is provided by our participation in the VRA Listserv (VRA-L). This invaluable forum keeps us in touch with our colleagues across the continent and around the world. In its dozens of daily messages we request the assistance of our professional community in providing for our immediate information needs; we seek advice about purchasing and licensing decisions; we recommend to others the sources and resources we have found helpful. We invite our peers to share alike our accomplishments and our disappointments. And sometimes, we just need a safe space in which to vent our frustrations.

One of the many tasks I set for the Executive Board this fall was a review of the VRA-L Listserv Guidelines. We made a few additions and revisions: clarifying, for instance, that although use of the VRA-L for commercial advertisements

is prohibited, our members are welcome to send brief messages announcing the availability of projects, products, and services that are likely to be of interest to this community, providing links to additional information which the individual reader may follow if desired. While requesting that Listserv users refrain from posting partisan political messages, we welcome and facilitate objective discussion of public issues or proposed legislation relevant to the visual resources constituency.

You can review the revised VRA-L Listserv Guidelines at <http://www.vraweb.org/vra-l/guidelines.html>. Amid these days of comfort and good cheer, I invite each of you to re-read these Guidelines thoughtfully. Most of them are simply specific ways of reminding each of us to approach our messaging with common sense, professional comity, and personal courtesy.

Are you beginning a message string? Try to keep things brief, concise, and to the point. Don't keep your readers guessing: clearly identify the topic of your message in the Subject field. If possible, use keywords that will make it easy for someone to locate your message in the VRA-L Archives. Very long messages have caused problems for some subscribers' mail systems. As a general rule, lengthy, dense messages are less likely to be read by busy people with many demands on their time. Perhaps the information you wish to convey would be more effectively presented in a well-reasoned summary, or as a series of talking points.

Please keep in mind that we were all once newcomers to this community. Even though a particular question or issue may have been discussed at some previous time on VRA-L, a newcomer (and, thankfully, we have dozens of these each year!) may not be aware of this. Older hands might take a moment to guide a new member through the process of searching the VRA-L Archive, suggesting a useful point of entry. These days, we must do everything possible to nurture and support our new members: frankly, we need them all!

Remember that old plaint: "It isn't what you said, it's how you said it..." Professional courtesy is most critical when we express differences of opinion. Collectively, we bring to the table many different backgrounds, skills, personalities, and life experiences. Reasoned disagreement that proposes alternative answers may be appropriate, but should always be grounded in a spirit of courtesy and mutual respect. No flaming allowed!

Are you replying to a message that someone else has posted? The default setting for most of our subscriptions will send your response out to the entire listserv, rather than to the individual who sent the original message. If you wish to reply directly to the message sender, cut and paste the sender's name into the address in place of <VRA-L@LISTSERV.UARK.EDU>. It is particularly appropriate to do this when you are making a personal response, or when your message contains potentially sensitive information.

In fact, we should all take time to re-read any message we address to the VRA-L, as well as any response that will go out to the entire listserv, before we hit that "send" button. Review what you've said not only for clarity

and accuracy (not to mention syntax and spelling!), but for the tone of the message as well. Could what you have said (and the way that you've said it!) strike someone else as being unnecessarily critical, confrontational, or condescending? If so, perhaps the same information or opinion ought to be stated more diplomatically.

Does it take more time for a message sender or respondent to do this? Or to direct a response to a specific individual rather than to everyone? Of course it does. But weigh this investment of your time against the value of the time and effort required for eight hundred or so of your worldwide colleagues to read your words!

If all you want to do is unsubscribe, or re-set your subscription preferences before an upcoming vacation, we don't all need to know this. Just follow the simple instructions found at <http://www.vraweb.org/vra-l/index.html>. As the commercial says, "There's an app for that."

One final point: each message posted to the VRA-L should include the submitter's full name, institutional or professional affiliation, and email address at the end of the message.

Old two-faced Janus has a particular significance for me these days, as I count the waning days of my presidency while recalling the challenges and accomplishments we have shared during the past two years. We will mark the dawning of a New Year with the unveiling of the VRA Strategic Plan, a forward-looking blueprint for the future success of our organization and its individual members. During this time of reflection, I'm grateful for all of you who have chosen to be part of the ongoing life of your Association..

February 2010

The recent turning of the New Year provided occasion for numerous commentators to review "the first decade of the twenty-first century." Of course we all know logically that the decade didn't officially begin until 2001; still, the unfounded fears about Y2K provided a convenient starting point for assessing a string of years in which the growing power of networked information seemingly transformed every aspect of our lives.

All of these decade-in-review exercises prompted me to make my own list of important trends and changes in our profession. First and foremost has been the transition from analog slides to digital images as the basis of most of our collections. Second, but perhaps equally important in its long-term implications, has been the increasing acceptance of uniform standards in image cataloging and classification. This ongoing transformation is one for which we can take pride in the pivotal leadership provided by our Association, as evidenced in the formulation of the VRA Core categories and the publication of *Cataloging Cultural Objects: A Guide to Describing Cultural Works and Their Images*.

A third significant change has been administrative:

looking at visual resources collections as institutional assets rather than just departmental resources. At a time when shrinking budgets increase scrutiny of institutional investments of all kinds, promoting broader access to, and more intensive use of, resources helps to maximize their value. Moreover, opening up collections for use by the broader community fosters interdisciplinary approaches to teaching and scholarship that surely reflect an important current in higher education.

A fourth significant trend has been our growing reliance on subscription-based products and services to provide an increasing percentage of the teaching images our faculty use. The tremendous success of ARTstor is the most obvious example; but many of us also rely on resources such as Grove Art Online, Bridgeman Education, RLG Cultural Materials, and others for key portions of our overall image needs. Image vendors now offer searchable databases to help their customers easily locate specific works; they have repeatedly demonstrated their willingness to work with their clients in customizing licensing agreements. Scholars Resource represents a successful model of one-stop shopping for images from multiple providers.

Ironically, these same positive developments have in too many instances led to declining faculty and administrative support for local collections and the professionals who staff them. Some have begun to question the ongoing value of local collections; others, faced with recession-induced budget crises, look to the elimination of local collections and services as a convenient way to cut costs—in some cases because the decision-makers have lacked clear understanding of exactly what it is we do, and why what we do adds value to their programs. The distressing job losses suffered by so many of our VRA colleagues during the past year should send a wake-up call that we need to be more pro-active in articulating our position, and actively seek to participate in such processes as long-range institutional strategic planning. Our publication this past fall of the VRA White Paper, "Advocating for Visual Resources Management in Educational and Cultural Institutions," gives our members a powerful tool to bring to these discussions.

After reviewing the past decade in the rear-view mirror, I looked down the road to where we might be as a profession, and as an Association, at the end of the next ten years. I am convinced we will be pursuing many of the same goals we have today, but we will employ new means to reach these goals. The major speed bumps on our way will not be technological: they will more likely be attitudinal. As I peered "through (tinted) glass darkly" towards the road ahead, two watchwords came to me. The first was flexibility. Not only our visual resources community, but also the constituencies we serve—faculty, administrators, students, and the public at large—must be willing to contemplate moving from old entrenched positions to consider new possibilities. Rather than fighting a rear-guard battle to "save" all visual resources positions as presently constituted, we must be willing to contemplate the redistribution of crucial tasks and

competencies, melding these into parallel responsibilities in library, instructional technology, or other emerging operations.

Our Association must be similarly open to closer working relationships with its natural allies. Our second joint conference this coming year with ARLIS/NA will provide a signal opportunity to engage in this kind of bridge-building. And that theme gives me a segue to the second watchword for the coming years: collaboration. We need to foster and facilitate closer working partnerships with all of our constituencies: with individual faculty, with key administrative planners, with library special collections. We need to encourage ARTstor to move forward with its Shared Shelf and Open Shelf initiatives; work with our faculty in projects like SAHARA; and use opportunities such as MDID's Shared Collections or Luna Insight Community Collections to move aggressively towards shared cataloging, the pooling of relational database contents, and (yes) image sharing to the fullest extent permitted under our public domain and fair use rights, as interpreted by community standards of good practice.

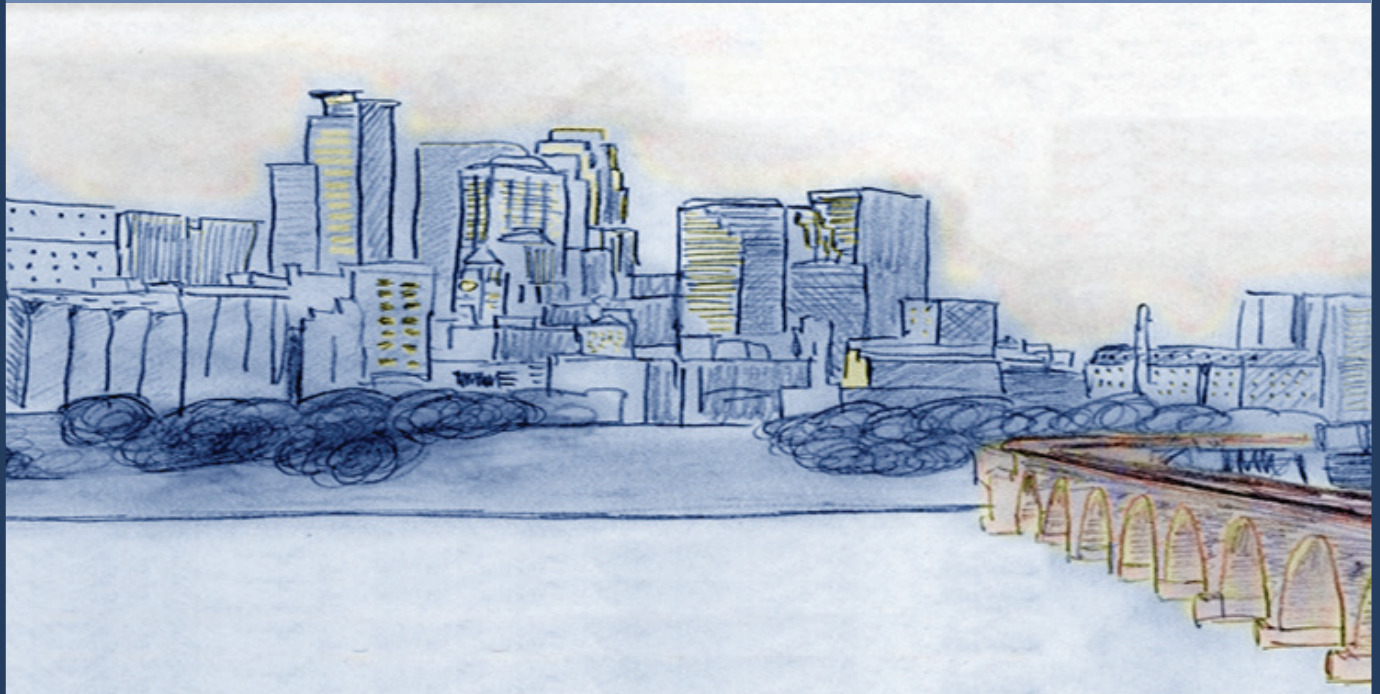
As we set forth on the next leg of our journey, it's important for each of us to know that we don't have to travel solo. While underscoring the crucial significance of our work in developing standards and promoting tools for the betterment of our community, often the most direct effect we have is on a personal level. Our mutual encouragement and support of each other as individuals is equally valuable.

This will be my final "Notes from the President" column; next month in Atlanta I will hand over the presidential gavel to my successor, Maureen Burns, who this past year so ably chaired the VRA White Paper Task Force while dealing with the loss of her own position at UC Irvine. Navigating the VRA ship has been an interesting, if at times tempest-tossed, undertaking. As I prepare to step back into the ranks, I remain cautiously optimistic about the future of both our profession and our Association. Thanks to all of you who have contributed your encouragement, support, hard work, and good ideas.

Allan Kohl
VRA President
Minneapolis College of Art & Design

VRA + ARLIS/NA 2011

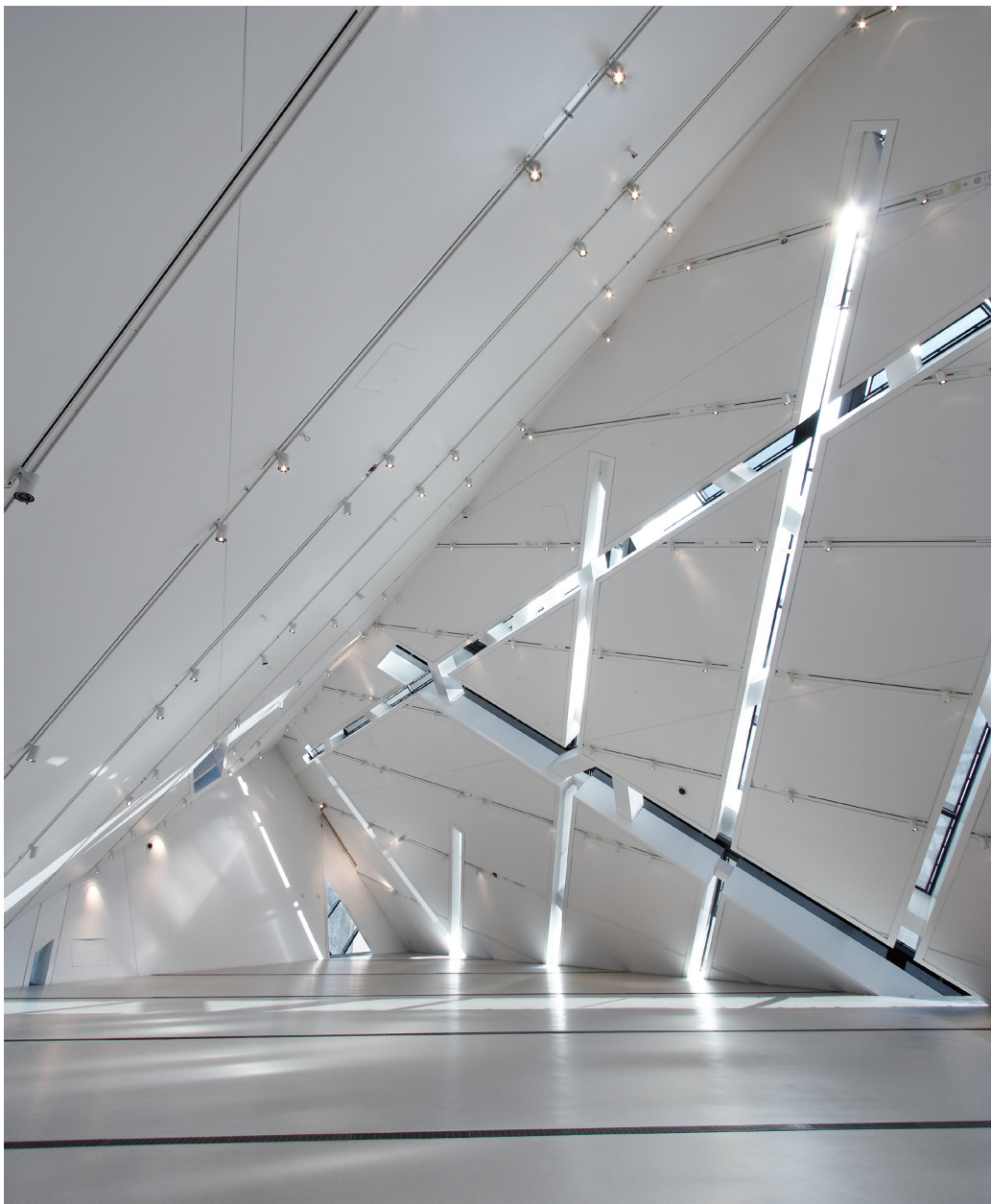
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Sam Javanroub.

Session 2
Outside the Canon

Co-moderators: Laurel Bliss and Melissa Lamont, San Diego State University

Abstract

A dynamic group of speakers will discuss their work on recent and ongoing projects that often push the boundaries of traditional content areas in visual resources. Topics include: Tractors & Life on the American Front— Digitizing the Theo Brown Diaries; Creating Collections in the Arts and Humanities in an Institutional Context; Hunting for Art; On the Trail of Elusive Works; Building an Artist-centered Image Collection with Flickr; and Building a Complex Multimedia Art Database. ♣

Outside the Canon: Digital Image Collections in the Arts and Humanities in an Institutional Context

Birgit Plietzsch, University of St Andrews

Introduction

Images are widely used in higher education research and teaching. It is therefore not uncommon for academics from various subject areas to set up their own image collections or, in some cases, to use a set of often very basic ICT skills to develop their own image database. It is also not uncommon for such databases to evolve into something that turns out to be important for teaching and research at the organisational level.

This means that it is essential for these databases to function reliably within the context of the technical infrastructure for which they have been created and in which they are used. To achieve reliability it is necessary for academics and for IT-support staff to collaborate in the development of new electronic resources.

Project Background

In 2004 and 2005 IT Services, the central computing service within the University of St Andrews, received a number of requests from staff within different academic Schools in the Faculty of Arts for advice on the setup of various image databases. These requests raised a number of questions, including whether there are any academic reasons that point to the need to have several technical solutions for what on the surface seemed similar needs.

It soon became clear that without any form of coordination of these requests different staff would set up their own databases and image collections independently of one another using a range of different software packages and metadata standards. From a technical perspective such a scenario was undesirable. A number of different image databases were likely to decrease the efficiency in medium to long-term technical support provision unnecessarily.

Taking arising technical support needs into consideration, it was decided not to limit support to advice and basic training and then to leave academic staff to proceed with their respective projects independently of one another. In consultation with users and with national support bodies it was concluded that IT Services should take on the project to implement one technical solution that would meet the needs of a wide variety of users.

Levels of Interest in the Image Database Project

Having turned into an institutional project, the image database project had to unite three levels of interest: From the University perspective it was important that the image database would assist with existing legal obligations. Legal

obligations included the Disability Discrimination Act (2005)¹ that sets the framework for access to educational resources for people with disabilities and the Copyright, Designs and Patents Act (1988)². It was furthermore important that the image database should assist with the management of electronic data and that database users had to authenticate using their University of St Andrews username and associated password.

In addition to wanting to ensure that the image database can be technically supported, IT Services wanted to eliminate, as far as was possible, recurring issues that had been linked to the technically inappropriate use of digital images within the University. The IT Helpdesk had been periodically approached with problem reports that relate to image digitisation issues. For example, users had been unable to display thumbnail images on a Web page through their browser. The "thumbnail" image was in fact the full resolution version of the image and had been downsized on the Web page using HTML markup. There were frequent image distortions on Web pages and unnecessarily large PowerPoint presentations consisting of images that had been uploaded into WebCT and that were filling up the WebCT server. Another cluster of problems was to do with the loss of quality when a Web-resolution image is printed professionally.

IT Services also wanted to ensure that the image database functions reliably in PC classrooms, in lecture theatres, and other teaching rooms across the campus.

At the outset of the project academic staff were naturally keen on the prospect of having a technical solution implemented for them by the central computing service. They were, however, not so keen on the prospect of sharing their images or "their image database" with others. The setup of an institutional repository for images was rejected outright. If there was to be one solution for use by a number of staff and students, most users demanded a choice of various levels of access restriction to be implemented in the tool that IT Services were going to provide.³

The Development of the Image Database

When IT Services looked at available image database software in the light of project needs and existing technical infrastructure, the project was unable to identify an out-of-the-box solution for existing local image database requirements. This meant that the project proceeded with developing new image database software in-house.

[See Figure 1]

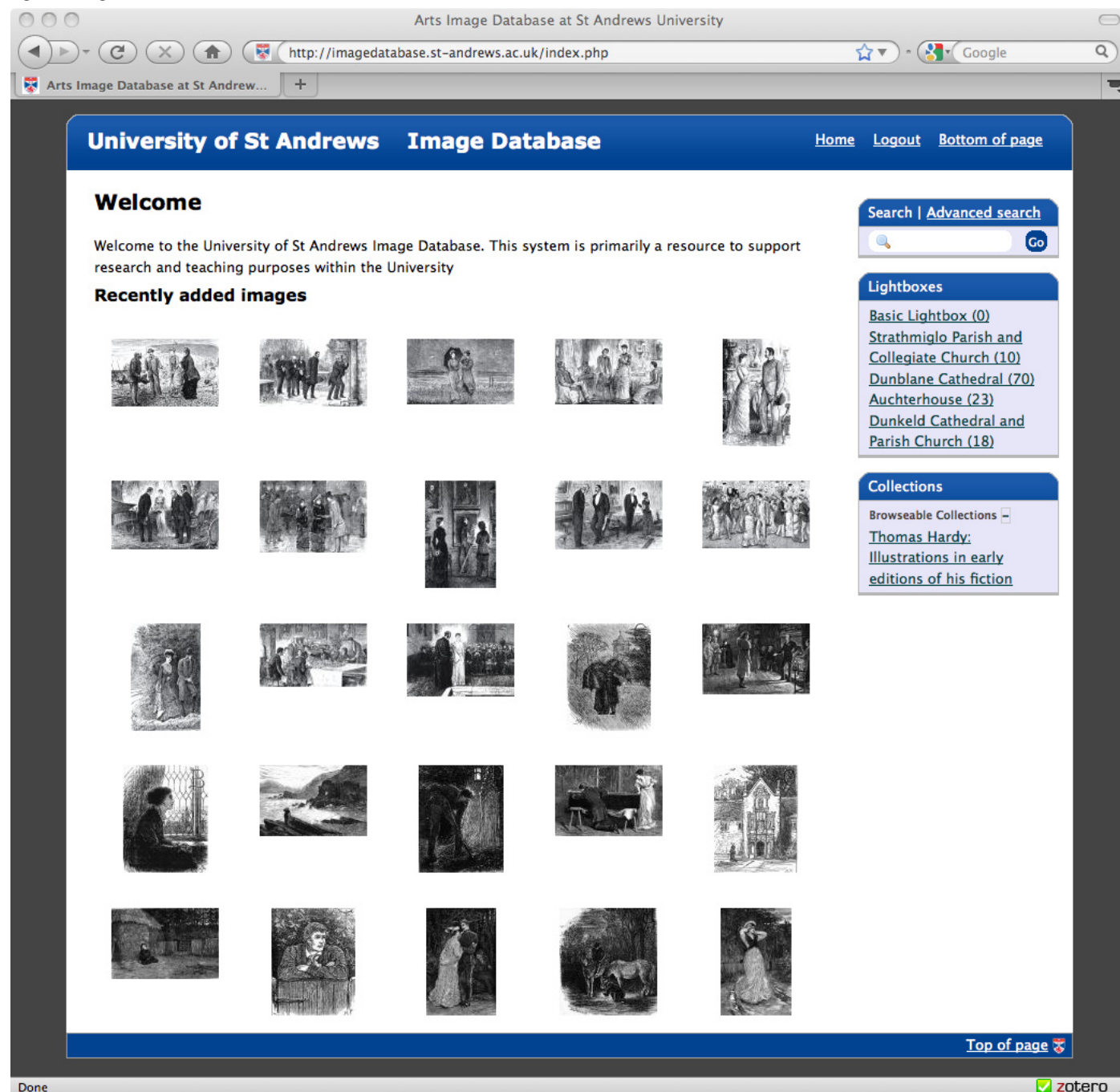
The image database can be found online at <http://imagedatabase.st-andrews.ac.uk>. It has been built entirely on open-source software (Apache, PHP, PostgreSQL) and implements the VRA Core 4.0 standard. To ensure structural consistency the VRA Core 4.0 is enforced for all image collections in the database. This decision immediately led to the challenge that the complexity of the chosen metadata standard is beyond the understanding of most image database users. Users just wanted to set up their own image collections without having to obey to anybody's standard.

To deal with this situation a number of customised templates have been developed for individual collections. Templates use labels that are meaningful to the user and map these labels to the appropriate VRA Core 4.0 element. For example, the label "Photographer" in a collection of digital photographs, the label "Painter" in a collection of paintings, and the label "Architect" in an architectural collection are all

mapped to the AGENT element. The content that is assigned to these labels is stored in the same field within the database.

The image database implements two levels of user: Standard users are able to browse collections; collections administrators can set up image collections. By default there is one administrator per collection, but the database administrator can add additional users as administrators for

Figure1: Image Database Welcome Screen



individual collections. Collections administrators can set up public collections that are viewable by the world at large, University collections that can be seen by members of the University, group collections that are viewable by a group of users usually an academic School and private collections that can only be seen by the collections administrator.

The image database works from high-resolution images that are uploaded as TIFF files. Other image versions

are generated on-the-fly: upon first request thumbnails, medium and large Web versions are generated and then stored in the database. This is to reduce server load and to speed up the performance of the image database for the user. Other less commonly used image versions are available and are generated on-the-fly when demanded by the user.⁴

While it was possible to address most of the important aspects of image delivery and storage in the

Figure 2. Sample record

University of St Andrews Image Database

[Home](#) [Login](#) [Bottom of page](#)

Item Details

Work details

Author: Thomas Hardy
 Title: Far from the Madding Crowd
 Book Description: fifth installment of the serialisation of "Far from the Madding Crowd" (chapters 21-24) in the "Cornhill Magazine" (May 1874)
 Date Published: May 1874
 Book Subject: English Literature, Victorian fiction, regional novel, Wessex
 Work type: novel




Image details

Title/Caption: She stood up in the window opening, facing the men.
 Artist: Helen Paterson
 Date: 1874
 Illustration Rights: public domain
 Illustration Source: Cornhill Magazine
 Work type (eg print, digital file, scan, slide etc): etching
 Full Image Dimensions (WxH): 3563x2360 pixels
 Accession Number: IDB-1-000021
 Collection: Thomas Hardy: Illustrations in early editions of his fiction

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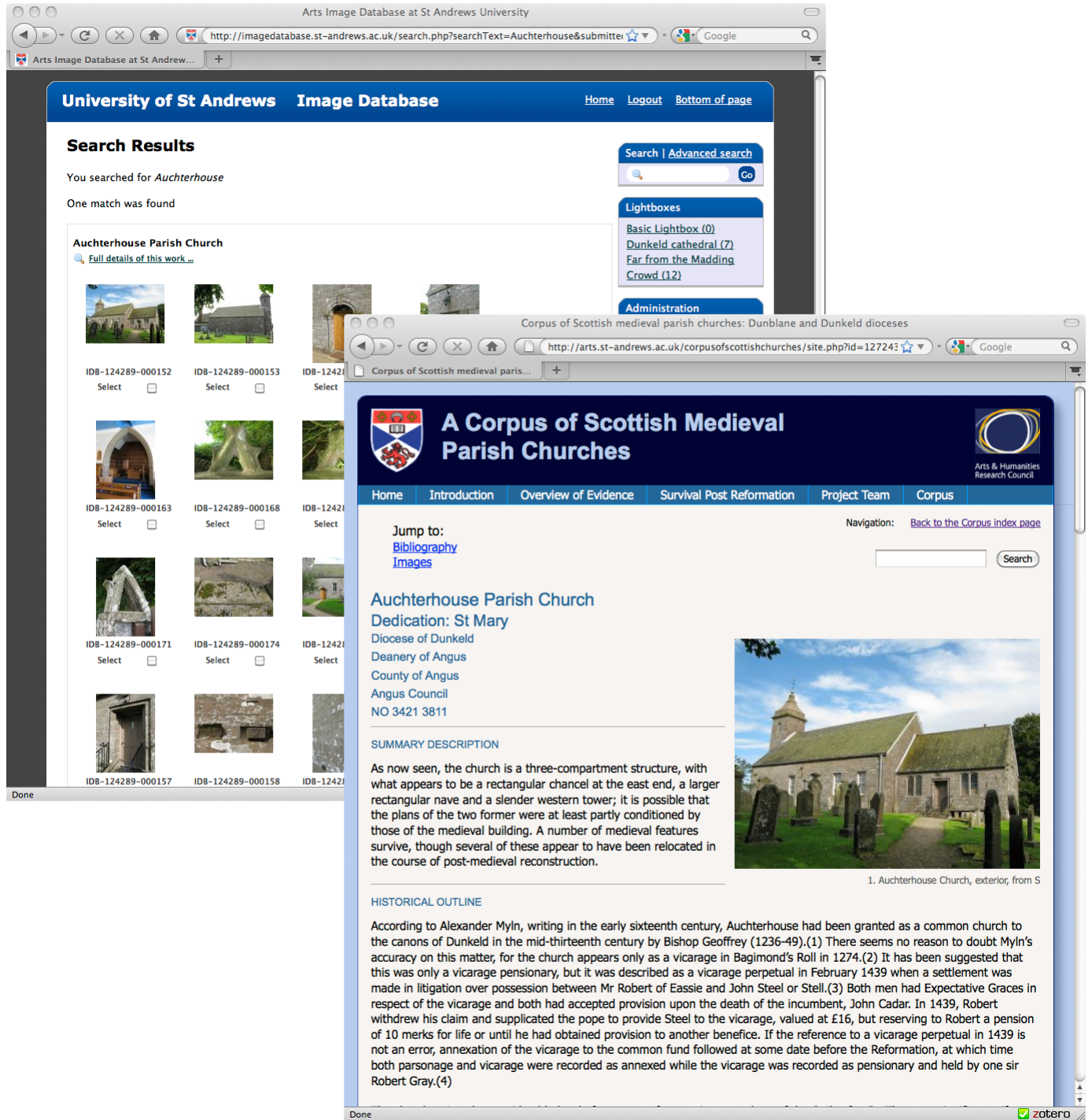


Figure 3. Images are stored within a collection in the image database and exported to the Corpus of Scottish Medieval Parish Churches project Web site



development of the image database, there is no global controlled vocabulary at this stage. It has turned out that users had their own subject-specific vocabularies and that these vocabularies did not match. It has therefore been decided that the controlled vocabularies should be restricted to individual collections.

[See Figure 2]

Current Use of the Image Database

At present the image database is used within three academic Schools within the University of St Andrews. These are the School of Art History, the School of History, and the Schools of Classics. None of these Schools is currently sharing their collections with other parts of the University.

Database use is most wide-spread within the School of Art History. In addition to the School's teaching collection, the database has been used by the Corpus of Scottish Medieval Parish Churches project.

Example of Image Database Use: The Corpus of Scottish Medieval Parish Churches Project

The Corpus of Scottish Medieval Parish Churches is an electronic research project that received funding from the UK's Arts and Humanities Research Council. The project was a one-year pilot to establish the feasibility of a larger study covering all of Scotland's 1,136 relevant architectural sites. It focused on dioceses of Dunkeld and Dunblane, which together embrace some ninety-seven parishes. The project team identified 105 sites for inclusion in the electronic resource. In total the resource comprises 1,154 images, most of which were taken onsite by project members.

To manage the images for each architectural site the project set up a collection in the image database. To meet the project's specific needs for the description of sites and associated images a template was set up. In addition to systematic storage of images the database was used to provide an easy data input and editing mechanism for each record, including essay-length descriptions for each of the architectural sites.

Once entered into the image collection, data is displayed dynamically on the project Web site that provides the public interface for the research outcome. Records can be sorted by Diocese, Deanery, County and Council. The site is fully searchable and utilises the image database search mechanism.⁵

[See Figure 3] 

Notes

1. Disability Discrimination Act (2005), see: http://www.opsi.gov.uk/acts/acts2005/ukpga_20050013_en_1
2. Copyright, Designs and Patents Act (1988), see: http://www.opsi.gov.uk/acts/acts1988/UKpga_19880048_en_1.htm
3. A list of user requirements that were gathered as part of the consultation process for the setup of the image database is online at: <http://arts.st-andrews.ac.uk/events/0611/requirements.shtml>
4. The functionality of the image database is described in: "Image database: it's live," Information Services Newsletter, University of St Andrews, November 2007: <http://www.st-andrews.ac.uk/itsold/newsletter/2007/11/imagetatabase.html>
5. More information of the Corpus of Scottish Medieval Parish Churches is available on the project Web site, which can be found at: <http://arts.st-andrews.ac.uk/corpusofscottishchurches>

Tractors & Life on the American Home Front: Digitizing the Theo Brown Diaries

Rodney Obien, Worcester Polytechnic Institute

Introduction

Worcester Polytechnic Institute (Worcester, Massachusetts) houses a unique collection of diaries by the engineer Theophilus Brown, a graduate of the class of 1901 (Figure 1). Theo, as he was known, worked for thirty-six years for the tractor giant Deere & Co. He headed Deere's Experimental Division, and from 1916 to 1952 was responsible for 158 patents, including the designs for the popular Model

A and Model B tractors. Theo would later serve on Deere's board of directors and be awarded the McCormack Award for lifetime achievement.

The diaries consist of sixty-five volumes, approximately 24,000 colorful pages, of writing, illustrations, photographs, and memorabilia, dating from 1893 to 1971 (Figure 2). The diaries are part engineer notebook, documenting many Deere designs and patents with specs and technical drawings; part scrapbook with clippings, inserted letters, and snapshots from family and friend; and part time capsule, capturing day-to-day life, news, and events from local to global. The diaries are a wonderful treasure, a lens to an America long since passed. One can only imagine Theo and the latest blogging technology.

Figure 1. Portrait of Theo Brown. Theo Brown Diaries Collection. George C. Gordon Library, Worcester Polytechnic Institute



Digitizing the Collection

WPI received a \$30,000 grant from the Massachusetts Board of Library Commissioners to digitize the Theo Brown Diaries. The project required that each of the sixty-five volumes be scanned; metadata records be created for each volume and each page; and a Web portal be designed to access the volumes and metadata. WPI choose to develop a “home-grown” system to manage the images and outsource the scanning of the diaries.

To complete the project the following had to be considered: standards, software and hardware, and preservation and image capture.

Standards

For digital image standards, WPI choose to digitize the diaries at 600 dpi, 24-bit color in TIFF format. These scanned images would serve as master copies. Web accessible images—75 dpi JPEGs—were derived from the masters.

For metadata standards, Dublin Core was chosen. A transcription field and tag field were added to the DC elements. The transcription field would include a full clear-text, fully searchable, transcript of each diary page. The tag field would include subject headings derived from the Library of Congress and terms compiled by the project catalogers.

A file naming convention was developed to embed basic metadata into each filename. The metadata would include 1) the year of the diary, 2) the volume number, 3) scan number, and 4) date. The metadata records were generated by passing the filenames through a database filter; the filter took each filename, abstracted the data elements listed above, and transferred information into a metadata record created specially for the filename (i.e. image).

Software and Hardware

MYSQL database was specially designed to manage the collection. The database was designed for interoperability—with future migration in mind. The database was also developed to be OAI compliant.

Figure 2. Composite image of Theo Brown and his wife Elise and sample diary pages. Theo Brown Diaries Collection, George C. Gordon Library, Worcester Polytechnic Institute.



WPI selected an Apple XServe Server to run the Website and MYSQL database. The server included 14 Terabytes of disk space to provide ample storage for the master images, metadata records, and Web content.

Preservation

WPI's Conservation Librarian had finally approval of whether or not a volume was ready for digitization. The Conservation Librarian examined each volume and made any necessary preservation treatments (Figure 3). The treatments included re-hinging inserts, paper repair, and repair of the bindings. A full condition report of each volume was compiled to note the condition of the volume before it was sent out for scanning.

Scanning

WPI contracted with the Brechin Group (<http://www.brechingroup.com>), a digitization firm out of Ottawa, Canada. Due to the fragile nature of the diaries, Brechin choose to digitally photograph the volumes. Their approach was:

- Photograph each face of the diary, including front and back covers and all the pages with content or without.
- Photograph each page in its entirety without cropping, including all edges and gutter—to provide a realistic view of each page
- Photograph each side of an insert. For example, all sides and views of a letter would be photographed.

Website

The Website, which is still in beta form, is accessible at <http://theo.wpi.edu> (Figure 4). The Website features basic background information on Theo and the diaries. Under the collection link, the user is presented with two options: a list of volumes and the front covers of the diaries. Click either and the user is presented with the diary pages in chronological order. Click on a page and the metadata record and image are displayed. The user can navigate to the next page or the previous one. The metadata is fully searchable. There is a search box at lower corner of the page. Under "Tag Usage," there is a list of tags. The user can access the metadata records that include those tags.

Figure 3. Kathleen Markees, WPI Conservation Librarian, examining and repairing one of the Theo Brown diaries.

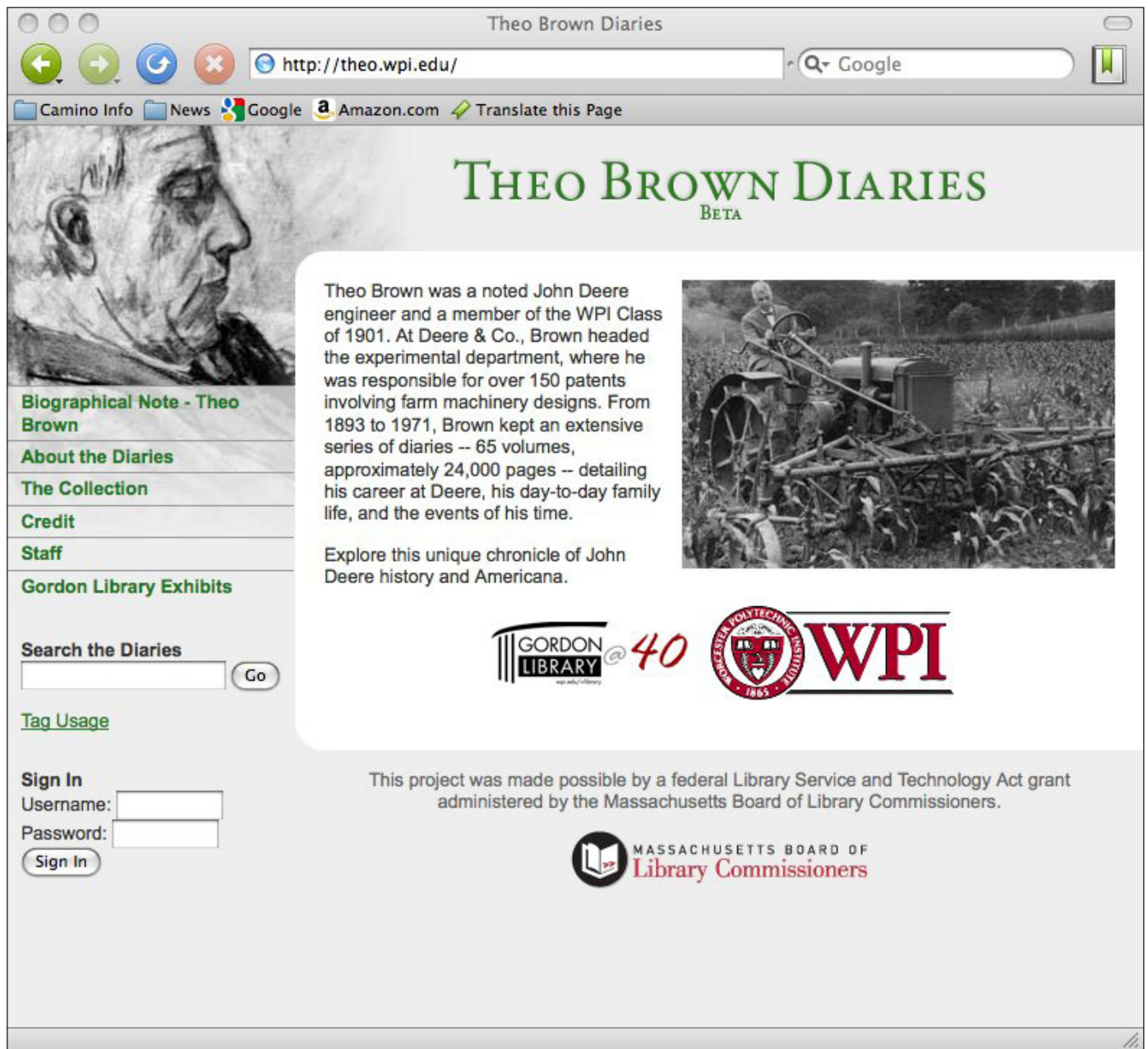


Conclusion

The Theo Brown Diaries do not merely represent a half a century of Deere & Co. history but also one man's unique, personal snapshot of an America long since gone. The online representation of the diaries may not seem the most elegant or flashy. The primary intent was to offer an "honest" and "authentic" representation of the diaries and provide a straightforward means of searching the collection's rich

content. The project is on-going; plans are in place to make years 1893 to 1950 available by July 2009. ☺

Figure 4. Snapshot of the Theo Brown Diaries Web site.



Hunting for Art—Elusive WPA Murals

Laurel Bliss and Melissa Lamont, San Diego State University

Near the end of 2007 Laurel Bliss and Lisa Lamont inherited a project begun by a librarian who had moved on from San Diego State University (SDSU). The project goal was to survey and photograph all the Works Progress Administration (WPA) murals in California. The WPA was one of many relief agencies created during the depression to put people to work. The WPA employed workers in their occupations, thus artists were commissioned to create art.

SDSU library administrators were particularly interested in WPA art because two murals were uncovered during the renovation of an old building that at one time held the college library. Initially local experts thought that the murals were products of the WPA. Stylistically and thematically, the murals certainly fit the era, and the building itself was

constructed with WPA funding. Later though, we discovered that the artists were students at the college and therefore would not have been eligible for WPA funding. Instead, inspired by New Deal art and Mexican muralists, they created murals in the WPA style.

Library administrators located donors and grant funding to remove the murals, restore them and move them to the current library. As the administrators talked with donors and developed grants, they realized that we had very little information about WPA art in California. The University provided modest funding for this research grant to document California's murals and perhaps place the murals at SDSU in their historical context.

No definitive list of murals exists. To locate murals we researched through books, dissertations, exhibition catalogs, and scholarly websites such as the National Archives. We created metadata in our Luna Insight software and began to populate the database with as much information as we could find. Many of the murals have been moved and quite a few

Figure 1. Thomas Laman, *Life in Early California*. San Mateo Post Office



destroyed so we telephoned schools, post offices, courthouses and federal building to inquire about their murals and request photos that they could share with us. The telephone calls sometimes went back and forth for days and weeks as we attempted to pry information about the murals out of people busy with their real jobs. Very often our requests for information completely stumped the person on the receiving end of our calls. Questions about their murals seemed to be far from their day-to-day business. The San Mateo Post Office shown in Figure 1 is the busy site of a series of well-preserved murals by Thomas Laman.

We received a few photographs directly from the sites and obtained others from the collections of other mural researchers. We sent disposable cameras to a few out of the way locations with good results. For the many remaining murals we traveled to the sites to obtain our own photographs.

The logistics were problematic. We needed to contact someone with enough authority to make arrangements, obtain permission to photograph, and negotiate dates and times to enter the buildings. We put together complex itineraries based upon clusters of mural locations. We flew to San Francisco twice, drove out into the desert, meandered through Los Angeles and saw a great deal of California by the

end of the project. We set a record on one road trip to Los Angeles: seventeen murals in just two days.

We also had some mission creep. Technically, the WPA was only one of four New Deal art programs. We decided that although the grant specified WPA, the intent was to capture New Deal murals. Also, we had difficulty confining ourselves to murals, and ended up documenting mosaics, polychrome, relief, and wood work. Figure 2 shows a detail of one of Caspar Duchow's delightful animal mosaics from the East Whittier Elementary School.

The result is a Luna Insight collection of all the murals that we could capture. The quality of the art varies considerably, not surprising for the products of a relief agency. The murals also vary widely in theme and style. Furthermore, the denizens of the buildings hold widely varying attitudes toward the murals; some have carefully preserved their artwork, while other murals have been painted over or ignored. Jane Berlandina's mural in the upper section of the Coit Tower in San Francisco is one particularly fine example of the high quality of many of the WPA works. A detail is shown here in Figure 3.

We know that our list is not definitive. Specifically, we know of some murals that we cannot photograph. For instance, the principal of a particular elementary school will

Figure 2 (below). Caspar Duchow, Animal Mosaics. East Whittier Elementary School.

Figure 3 (at right). Jane Berlandina. Home Life (Red Room). Coit Tower, San Francisco.





not allow us to enter the building. The Los Angeles County Museum of Art holds several dozen murals, but they are in the process of a remodel and the art is in storage. The Annenberg Center will not let us photograph without a \$2 million dollar insurance policy. Without a definitive list of art, we believe that other works exist around the state and are waiting to be discovered.

As we unveil the database and invite users in, we will also gladly accept additional information or photographs. This is a work in progress. <http://infodome.sdsu.edu/projects/wpa>

Figure 4. Screen shot of the WPA Murals in California opening web page.



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Sierra Club Colby Library: Betterlight scans of rare Ansel Adams photo album printed in 1928

Sierra Club Colby Library: Betterlight scans of Joseph LeConte map from 1896, showing the future Yosemite National Park

American Institute of Architects: 93,000 slides scanned in 18 months

St. Lawrence University: digital studio design, onsite setup and training

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*Session 4***Engaging New Technologies****Abstract**

This fast-paced session will demonstrate a rich variety of new technologies, and show how to engage with a heady array of contemporary products, services and tools. Organized as two distinct but complementary 90-minute sections, this session will present overviews (5-10 minutes each) of at least ten tools, providing for each a sample of an "end product" use, an overview of the software itself (demystifying the process involved in using it), followed by an open opportunity to brainstorm about how each tool or technology can be applied (matched) to our own work to support instruction, communication and research. Tools and technologies covered will include: museum/public outreach (podcasts and YouTube); new display technologies (Zoomii and Photosynth); communication tools, such as wikis, blogs, Twitter, RSS feeds; instructional tools, such as remote meeting, webinar and video screen capture software; social software, such as Flickr, MySpace, Google Docs; tools for scholarly research and teaching, including Second Life, Zotero, Google Earth, and other GIS tools. ☺

Summary

Moderator: Betha Whitlow

Presenters: Heather Cleary, Susan Jane Williams, Meghan Musolff, Francine Stock

As anyone in the visual resources profession knows, technology is evolving at a faster pace than ever before. What seemed cutting edge a few years ago may now simply be the new normal, or even belong in a museum of technologies past. In the Engaging New Technologies sessions at the 2009 VRA Conference, we heralded "the smartphone as a new computing platform" and shared an unusual new microblogging platform called "Twitter." Two years later, both of these technologies are now ubiquitous in our personal and professional lives. Therefore, consider this article as both information and artifact, documenting what was new and exciting at a particular moment in time, or perhaps even now.¹

Communication Tools*RSS feeds (Really Simple Syndication)*

RSS is an automatic notification that new information on a favorite Web site or blog has been posted, published, sent, or scheduled. In order to subscribe to an RSS feed or newsfeed, a user needs an RSS reader (also known as a news aggregator) and URL (Web address) of the RSS feed to which they would like to subscribe. RSS specifications include RSS 1.0; RSS 2.0 and Atom.²

Why use RSS feeds? For the content creator, RSS feeds ensure that users will have access to your site updates, and for the users RSS feeds help with time and content management. Users are alerted to new content, instead of having to visit sites to see if they have been updated. Feed Readers help manage subscriptions to content by allowing users to organize it with tags or under topical folders. Content creators can embed feeds into blogs and Web pages.

To locate feeds of potential interest, Bloglines is a valuable resource, in addition to acting as an RSS reader. The availability of feeds on sites is usually indicated by the RSS icon.

- Bloglines (<http://www.bloglines.com>)

Blogs

Blog is short for "Web log." Other related terms include vlog (a video blog), photoblog, blogger (one who blogs), blogosphere (the community of bloggers) and blogroll (links to other blogs). Blogging is a communication tool characterized by frequent content changes and ease of use, allowing anyone to share content (news, thoughts, images, polls, events) with the world. The elevation of those who work in the blog medium to professional status was apparent when a Huffington Post reporter was called on during a White House Press conference. Advertisers are now using blogs as

part of “viral” marketing strategies.³

Individuals may set up their own blogs using free sites such as:

- Blogger (formerly Blogspot) (<http://www.blogger.com>)
- LiveJournal (<http://www.livejournal.com>)
- TypePad (<http://www.typepad.com>)
- WordPress (<http://wordpress.org>)

Twitter

Twitter posts, called “tweets,” are limited to 140 characters. This form of communication was first described as “microblogging.” One may also subscribe to and follow individuals and institutions on Twitter for immediate and constant updates in their Twitter feed.

Twitter has become an international phenomenon, frequently cited in international news events as a key means of communicating in crisis, since one can access and use Twitter from many mobile devices.

- Twitter (<http://www.twitter.com>)

Instant Messaging

Instant messaging, or IM, is used for spontaneous conversations or “chats”. Popular IM services include AIM (AOL), Google Talk, ICQ (I Seek You), Meebo, Pidgin, Yahoo Messenger and Window Live (formerly MSN) Messenger. IM is “live” chatting back and forth, as opposed to Twitter or “texting” which are brief exchanges not necessarily in real time. Netlingo provides definitions and a dictionary of the shorthand that is now used with instant messaging (and texting).⁴

IRC (Internet Relay Chat)

IRC allows for group conversations on pre-existing “channels.” Some IM clients allow users to talk across IM networks and some, like Pidgin, also handle IRC.

Internet Forums

Text-based Bulletin Board Systems (BBS) and Usenet have evolved into a new generation of tools allowing for group communication. These include MSN Groups, Google Groups (which took over Usenet), and Yahoo! Groups. Characterized by threaded discussions, Internet forums allow users to collaborate and communicate in an online environment. Discussions may be accessed and posts can be made by signing into the group through a Web browser or through email.

Wikis

The term is traced to the Hawaiian wiki wiki (“fast”), and also a retronym for What I Know Is.

Wikis are a collaborative repository of static and stable information. The collaborative nature harnesses the power of the crowd; anyone allowed access can contribute to and edit an article. Essentially functioning as an online whiteboard, albeit one that records everything on it, wikis

allow for easy access to an editing history, making it easy to revert to earlier versions of content. Wikipedia, started in 2001, is the best-known example of the technology. Powered by MediaWiki software and available in about 260 languages, Wikipedia is edited by volunteers and overseen by a small, paid administrative staff. Other wikis may restrict content contributors to prevent unauthorized postings.

Universities and other institutions are starting to use wikis to organize and share information. An example is the Wiki at OTIS College of Art and Design,⁵ which uses PBWorks⁶ as its wiki creation software.

- Wikipedia (<http://www.wikipedia.org>)

New Display Technologies

Display Hardware

Trends in display hardware range from the small to large side of the spectrum, from the huge LCD screens, seen in the 2008 Beijing Olympics, to the small, handheld Pico data projector. In the session, The Beijing LCD screen, suspended as a canopy over a downtown Beijing street and measuring 656' x 98', played continuous video composed of multiple screens. In contrast, the Pico⁷ was the first entrant in a class of small data and video projectors that can be held in the palm of a hand. There are now several models from other makers available. Their advantage is portability, but in exchange users may expect the ability to project only at short distances from the projection surface, as well as a relatively small projected image.

Small Point-and-Shoot Video Cameras

Another market of very small, point-and-shoot video cameras became very popular in 2009. These include the Vado and the Flip Mino HD. Kodak now has a video camera in this class as well. These are especially handy for creating and feeding video to sites like Vimeo and YouTube.

The Smartphone as a New Computing Platform

The iPhone has made a big splash since its introduction, and other smartphones have emerged into a class that is now considered its own computing platform. These mobile devices are excellent examples of how various technologies converge into a single computing tool, becoming a “Swiss Army knife” of mobile personal computing, allowing for Internet access, texting, email, phone, and other modes of communication and interaction. Universities, libraries, and cultural institutions are increasingly utilizing this platform for communication and delivery of resources, knowing that the use of texting, instant messaging, and mobile Internet access have become ubiquitous among their students.⁸

Library systems are being transformed so that OPACs work with smartphones, allowing for citations, shelf numbers, and much more to be sent directly to the patron’s phone. In addition, many library Web sites are being optimized

specifically for the smartphone/mobile platform, using the domain name .mobi. The guide for optimizing Web content for mobile devices was created by a consortium of Google, Microsoft, Samsung, and Nokia. An example of a library site with a mobi domain is that of Ball State University Libraries.⁹

Library OPAC vendors are also incorporating mobile technologies into their products. Innovative Interfaces, Endeavor, SirsiDynix and Talis have all developed mobile interfaces. Innovative's AirPac product and has been launched by over ninety libraries.

Museums are also using mobile devices for visitor education and exhibit guides. This is of course not new, since museums have been using hardware (primarily to play audio) for this purpose for decades. However, increasingly these materials will be distributed onto devices that the visitor already owns.¹⁰

Innovative Display Software

There have been many recent developments in the way visual information can be displayed. Some of the newest display technologies include:

- Photosynth and Seadragon (<http://photosynth.net>)¹¹
- Cooliris (formerly PicLens) (<http://www.cooliris.com>)
- Animoto (<http://animoto.com>)
- Zoomii (a virtual bookstore with a unique display) (<http://zoomii.com>)

Training/Remote Meeting and Screen Capture

Computer Screen Capture (Recorded Video)

As physical access to information is transformed to mobile access, it is increasingly important for libraries, visual resources facilities, and cultural institutions to distribute important materials like training videos online. Screen capture software allows the user to directly record what is happening on a computer screen, sync it to an audio track such as spoken instructions, add textual information, and edit what is recorded. There is a variety of screen capture and recording software available, from freeware to more elaborate Adobe products. A Webcam may also be used to record and integrate material beyond that which is captured on the computer screen. Adobe's Captivate and TechSmith's Camtasia software, though not freeware, are among the most versatile screen capture products.

- Captivate (<http://www.adobe.com/products/captivate>)
- Camtasia (<http://www.techsmith.com/camtasia.asp>)

Remote Meeting/Live Screen Sharing

Remote meetings are an effective and cost-saving way to gather groups that are geographically distant or otherwise unable to convene in one place. Remote meeting technology can include screen sharing to look at documents and programs together, audio, and video that allows participants to see each other and speak in real time. Most

programs allow users to pass control of audio and computer screens freely among participants. There is a full range of remote meeting products with an array of features. Many are low-cost and have "pay as you go" plans. Many also have free 30-day trials. The price distinctions between products typically reflect the level of functionality. For example, some products may allow only live meetings, while others provide the ability to record, save, and redistribute the session. Remote meeting products include:

- WebEx (<http://www.Webex.com>)
 - GoToMeeting (<https://www1.gotomeeting.com>)
- TeamViewer is a free download (Windows OS only) that provides screen sharing; to converse while screen sharing, participants might utilize Skype.
- TeamViewer (<http://www.teamviewer.com/index.aspx>)

Web 2.0 and Social Software

What is Web 2.0?

Unfortunately, definitions of Web 2.0 vary widely. Some individuals consider the term "Web 2.0" to describe a new and improved Internet. Something better, or a newer version, of what existed before (hence, the "2.0"). However, others think there is nothing "new and improved" at all. The Internet is the same old tool it used to be; the URLs take you to the same places. The only change is that now the technology and software exist so that the Internet can fulfill its original purpose—to connect people with shared interests.

Most would agree that Web 2.0 is oriented around the idea of the personal Web. Web 2.0 technologies and software allow users to wade through all the vast resources found on the Web and winnow them down to what the user finds interesting and important. In other words, Web 2.0 customizes and organizes the Web for the individual. Tied into this definition of the personal Web is the idea of user importance or user empowerment. If we like something, if we hate something, or if we find something important, we now have the ability to voice that opinion in any outlet of our choosing, at any time—day or night.

Another important Web 2.0 concept is sharing. Web 2.0 technologies and software allow users to take what they find interesting and relevant and share it with others through a variety of mechanisms, including social networking and the use of tagging (assigned terms) to make it easier for those with common interests to locate information. Often, these technologies allow users to network with individuals with similar interests and to make meaningful connections with people. In addition, Web 2.0 technologies and software allows those with similar interests to come together virtually and collaborate easily.

Image Sharing Technology

Image sharing embraces the range of Web 2.0 concepts. First, a user registers with the Web site to create

an account. Then they upload photos to the Web site. Finally, they identify the photos using titles, descriptions and tags (essentially, assigned terms), so that others search for them using these terms. And finally, the user can decide to share their pictures with those close to them, or open them up to a wider community. The most popular example of an image hosting Web site is Flickr. Flickr Groups are a great way to share photos with others and pull together relevant photos from a variety of Flickr users. An excellent example of a visual resources-oriented Flickr Group is the accessCeramics Flickr group,¹² a private Flickr group consisting of images of contemporary ceramics. Users must have permission to contribute to the Flickr group, but anyone can view the images through the Flickr Web site. Images contributed to the pool are then used to create a separate, but related, Web site.¹³

- Flickr (<http://www.flickr.com>)

While initially developed for the sharing of images by individuals, Flickr has now also become a source of image distribution for public institutions. Called the Flickr Commons, the site hosts images from numerous institutions such as the George Eastman House, the Brooklyn Museum, the Smithsonian, and the pilot partner, the Library of Congress (LOC). By all accounts, this partnership has reaped tremendous rewards and increased the use of participating institution's image collections. In a recent study of the project by the LOC, as of October 2008, their photos had received 10.4 million views.

- Flickr Commons (<http://www.flickr.com/commons>)

Other popular image hosting Web sites include Photobucket and Picasa. These sites work in essentially the same way as Flickr.

- Photobucket (<http://photobucket.com>)
- Picasa (<http://picasa.google.com>)

Fototagger allows users to tag objects or people in their photos. And while most people use it to tag people in family photos or monuments in travel pictures, others have used the site in ingenious ways. For example, one user has taken Renoir's *Luncheon at the Boating Party* and tagged all identifiable individuals.¹⁴

- Fototagger (<http://sourceforge.net/projects/fototagger>)

Sharing Web sites: Social bookmarking

Social bookmarking Web sites helps users to keep track of their favorite Web sites by allowing them to store, organize, search and manage bookmarks easily. Because the bookmarks reside online, they are available anywhere the user has network access. These sites allow bookmarks to be organized and retrieved through tags, which means no more messy, browser-based bookmarking systems. In addition, users can share favorite Web sites and discover new Web sites of interest by searching other people's tags—hence the term SOCIAL bookmarking. Social bookmarking technologies include Delicious, and Diigo, which allows users to highlight sections of Web sites that are of greater importance to them, and annotate the page with virtual “sticky notes.”

- Delicious (<http://delicious.com>)
- Diigo (<http://www.diigo.com>)

Mystickies is another social bookmarking option that allows users to leave “sticky” notes on Web pages.

- Mystickies (<http://www.mystickies.com>)

StumbleUpon and digg aggregate Web sites by the tags assigned to them, allowing users to search using these tags to access sites of potential interest.

- StumbleUpon (<http://www.stumbleupon.com>)
- digg (<http://digg.com>)

Online File Sharing

Online file sharing sites allows users to post a wide variety of files online and then grant access to those files to a specific set of individuals. The files are available from anywhere and backed-up on servers. Many of these sites also allow for collaborative document editing and revision tracking.

Google Documents is one of the most popular online file sharing and collaboration sites. Google Docs allows users to create new documents, presentations, forms, or spreadsheets, and share and edit those documents with others. Google Documents also allows users to upload most file types, including PDF's and documents, presentations, and spreadsheets created using Microsoft Office applications.

- Google Docs (<http://docs.google.com>)

Another great file sharing option is Dropbox. When a user registers with Dropbox, the application creates a folder (or virtual “dropbox”) on their computer that can be synched between multiple locations or accessed through the Dropbox Web site. This allows its users to access the same files no matter where they are working. Unlike Google Docs, which is largely focused on documents and presentations, Dropbox folders can house any type of file, including image files, though Dropbox does not have the collaborative editing tools found in Google Docs. In addition, users can create folders that can be shared with others.

Another file sharing option is SlideShare, which allows users to share PowerPoint slide presentations. MobileMe is a service, similar to Google Docs, that is offered by Apple and works with files created on Macs.

- Dropbox (<http://www.dropbox.com>)
- SlideShare (<http://www.slideshare.net>)
- MobileMe (<http://www.apple.com/mobileme>)

Sharing Yourself: Social Networks

Social networks are online communities connecting users with shared interests, friends, and affiliations. Participating in social networking sites allows users to share information about themselves and their interests to a larger community, and to “keep up” with what's going on with others.

There are three major social networks: Facebook, Myspace, and LinkedIn. Myspace is rather similar to Facebook, but tends toward a younger demographic. LinkedIn is a business-related social network and is used mostly for

professional connections.

The most popular social networking site is Facebook. As of April 2010, Facebook had over 400 million active users. While the majority of these profiles are for individuals, organizations are also creating Facebook profiles to highlight themselves to a younger market. A great example of this is the Brand Library and Art Center whose Facebook profile includes information on their hours, location, and upcoming events.¹⁵

- Facebook (<http://www.facebook.com>)
- Myspace (<http://www.myspace.com>)
- LinkedIn (<http://www.linkedin.com>)

The realm of social network sites seems to always be expanding. Besides the top three, other sites include Zannel (which focuses on pictures and videos) and Ning.

- Zannel (<http://www.zannel.com>)
- Ning (<http://www.ning.com>)

Pedagogy and Neography

What is NeoGeography?

Neogeography combines the complex techniques of cartography and GIS (geographic information system) and places them within reach of users and developers. It can be used to describe the merging of user data and experiences with online mapping technologies. The term “mashup” means essentially the same thing as “neogeography.”

Two commonly used applications for neogeography are both products from Google: Google Maps and Google Earth. Google Maps is a free mapping service provided by Google, and it powers many map-based applications on the Web. Google Earth is software a user can download to his/her computer. The program maps the Earth by the superimposition of images obtained from satellite imagery, aerial photography and GIS 3D globe.

- Google Maps (<http://maps.google.com>)
- Google Earth (<http://earth.google.com>)

Tools for Exploration with Google Maps and Google Earth

Panoramio is a geolocation-oriented photosharing Web site. Photos uploaded to the site can be accessed as a layer in Google Earth and Google Maps. Panoramio’s goal is to allow Google Earth users to learn more about a given area by viewing the photos that other users have taken at that place.

- Panoramio from Google (<http://www.panoramio.com>)

Google Street View is a technology featured in Google Maps and Google Earth that provides panoramic views from various positions along many streets in the world. It was launched on May 25, 2007, originally only in several cities in the United States, and has since gradually expanded to include more cities and rural areas worldwide. Google Street View displays images taken from a fleet of specially adapted cars.

- Street View (<http://maps.google.com/help/maps/streetview>)

360 Cities provides one of the largest collections of

panoramic city views on the Web. It promotes geo-referenced and interactive panoramic photography. The panoramas on 360 Cities are available as a layer in Google Earth.

- 360 Cities (<http://360cities.net>)

Ancient Rome 3D, a layer for Google Earth, allows users to view a 3D model of Ancient Rome. Includes models of the Roman Forum, Colosseum and the Forum of Julius Caesar.

- Ancient Rome 3D (<http://earth.google.com/rome>)

Now you can use Google Earth technology to navigate reproductions of the Prado’s masterpieces, delving even deeper into the Prado’s collection. In Google Earth, you can get close enough to examine a painter’s brushstrokes or the cracks on the varnish of a painting. The images of these works are about 14,000 million pixels, 1,400 times more detailed than the image a 10-megapixel digital camera would take. In addition, you’ll be able to see a spectacular 3D reproduction of the museum.

- The Prado in Google Earth (<http://www.google.com/intl/en/landing/prado>)

The over 120 historical maps in the Google Maps have been selected by David Rumsey from his collection of more than 150,000 historical maps; in addition, there are a few maps from collections with which he collaborates. These maps can be seen in the Gallery layer on Google Earth, Rumsey Historical Map Layer, as well as in the Google Earth Views on the David Rumsey Web site. All the maps contain rich information about the past and represent a sampling of time periods (1680–1930), scales, and cartographic art, resulting in visual history stories that only old maps can tell. Each map has been geo-referenced, thus creating unique digital map images that allow the old maps to appear in their correct places on the modern globe.

- David Rumsey Maps in Google Maps (<http://www.davidrumsey.com/view/google-maps>)

Location, Location, Location: Tools for Navigating and Developing the Geo-spatial Web for Research and Presentation

What is GeoTagging?

Geotagging is the process of adding geographical identification metadata to various media such as photographs, video, Web sites, or RSS feeds and is a form of geospatial metadata. These data usually consist of latitude and longitude coordinates, though they can also include altitude, bearing, accuracy data, and place names.

What is Auto-GeoTagging?

The process of acquiring media, associating location with the media, transferring the media to an online map, and publishing the media in real time.

GeoTagging and AutoGeotagging Tools/GPS Friendly Digital SLR Cameras

- Nikon D90 D90 D1, D2, D3, D200, D300, D700
- Fujifilm S5Pro, ISPro
- Canon 40D, 1D III, 1DSIII
- Hasselblad H3D-II

Mapwith.us utilizes both social networking and geotagging technology, allowing users to instantly upload information like photo, video and audio from mobile phones to online maps.

- Mapwith.us (<http://www.mapwith.us>)
GPSPhotoLinker adds GPS position and location data to photos. The latitude and longitude recorded by a user's GPS unit are linked and saved to their photos. GPSPhotoLinker automatically enters the city, state, and country into the metadata.

- GPSPhotoLinker (OS X) (<http://www.earlyinnovations.com>)
GPicSync automatically inserts location in a photo's metadata so it can also be used with any 'geocode aware' application like Picasa/Google Earth, Flickr, or loc.alize.us.

- GPicSync (Windows) (<http://code.google.com/p/gpicsync>)

Geotagger 2.0 is a droplet for inserting GPS coordinates into photos.

- Geotagger (<http://craig.stanton.net.nz/code/geotagger>)
RoboGeo is a solution for geocoding photos. It allows users to write the latitude, longitude, altitude and photo direction to the image's EXIF headers, permanently embedding location data within the actual image.
- RoboGeo (<http://www.robogeo.com/home>)

What is GeoCoding?

Geocoding is the process of finding associated geographic coordinates (often expressed as latitude and longitude) from other geographic data, such as street addresses or zip codes (postal codes).

GeoCoding Tools

This list of Web software enables one to acquire geocodes from location information.

- Geocoder (<http://GeoCoder.us>)
- MelissaData (<http://MelissaData.com>)
- Batch Geocode (<http://BatchGeocode.com>) 

Notes

1. All links accessed January 28, 2011.
2. For more information on RSS feeds, see <http://www.rss-specifications.com/subscribe-to-feeds.htm> and <http://en.wikipedia.org/wiki/RSS>.
3. For more information about blogs, see the "Digital Scene and Heard" column in the VRA Images newsletter: <http://www.vraWeb.org/publications/imagestuff/vol6no4.html>
4. <http://www.netlingo.com/acronyms.php>
5. http://www.otis.edu/life_otis/faculty_life/tlc/wikis.html

6. <http://pbworks.com/content/edu+resources>
7. <http://www.microvision.com/showwx>
8. <http://www.wired.com/gadgetlab/2009/12/iphone-university-abilene>
9. <http://www.bsu.edu/libraries/mobile>
10. <http://www.nytimes.com/2010/01/15/arts/design/15design.html>
11. For a demonstration of Photosynth, see http://www.ted.com/talks/blaise_aguera_y_arcas_demos_photosynth.html
12. http://www.flickr.com/groups/contemporary_ceramics
13. <http://accessceramics.org>
14. <http://galleries.fototagger.com/link.php?action=detailimage&id=361&sort=0>
15. <http://www.facebook.com/brandlibrary>

*Session 5***Roundtable on Issues in Visual Resources Administration**

Co-organizers and co-moderators: Jenni Rodda, Institute of Fine Arts, New York University, and John Taormina, Duke University

Recorder and summary: Megan Macken, University of Chicago

Abstract

This roundtable will bring together visual resources professionals from a cross-section of institutions to discuss a variety of topics in visual resources management, and offer insight into the effective administration of image collections in the digital age. The Roundtable will focus on budgeting, staffing, space/facilities needs, and cross-institutional collaborations; cataloging, metadata, and digital imaging per se will not be considered except in relation to the more general topics of budgeting, staffing, and other administrative issues. ☺

Summary**Introduction**

This roundtable was co-sponsored by the VRA Education Committee and the Greater New York Chapter. It was held in conjunction with the Issues in Visual Resources Administration Workshop taught by Karen Whalen and John Taormina.

Prior to the 27th Annual VRA Conference in Toronto, Jenni Rodda and John Taormina conducted an informal survey of VRA-L members that revealed the most relevant concerns of visual resources administrators. Six seasoned professionals addressed these six topics and responded to questions from the audience:

1. Job Descriptions: Karin Whalen, Reed College
2. Salary Issues: Maureen Burns, University of California, Irvine
3. Declining Budgets: Jenni Rodda, Institute of Fine Arts, New York University
4. Facilities and Space Usage: Leigh Gates, Art Institute of Chicago
5. Mission: Elizabeth Schaub, University of Texas, Austin
6. Managing Change: John Taormina, Duke University

Job Descriptions, Karin Whalen, Reed College

As the technology needed to maintain image collections and bring images into publications and classrooms has changed, our job descriptions have had to change, too, and, in some places, new positions have been created. What process did you use to develop a completely new job description? What worked, and what didn't?

Once the "slide queen," Karin Whalen's job responsibilities have changed greatly over the last seven years. As digital images have gained precedence over 35mm slides, Whalen discussed her transition to "Image Empress" or "Duchess of Digital."

When Kodak announced that they would no longer produce slide projectors, Whalen recognized that a digital transition was not only imminent but inevitable. What could have been a major impediment for an art historian whose primary interest did not lie in technology became a solvable problem through the development of positive working relationships. After determining the necessary skill sets for a professional managing the digital transition, Whalen took control of the situation by approaching Human Resources. Additionally, she fostered relationships with other professionals on campus, including information technology staff, consulted her peers within the profession, and developed new skills. These positive relationships led not only to a workshop collaboration with Human Resources Director Mary Ann Wersch entitled "Job Status and the VR Professional," but also to the rewriting of Whalen's job description and the addition of a new Digital Collections Assistant.

"The VR curator must be a well-educated and well-trained professional with expertise in a variety of ever-changing, complex technical and scholarly areas."

When upgrading a position, Human Resources is primarily concerned with the complexity of tasks and level of responsibility. Questions to consider before approaching Human Resources include: What decisions do you make and how much impact do they have on the institution? What is your "internal equity," that is, what positions at your institution are required to perform at the same level as you? Externally, what positions in the regional area are comparable to yours? Increased responsibility for money, for technology, and for supervision are the three greatest leveraging factors the VR professional possesses in the negotiation of a new job description.

In developing a new position description, review VR colleagues' job descriptions and be aware of how VR professionals are perceived at your institution. As Jenni Rodda said, "Does your employer call you a slide duchess or a slide queen?" Those in union positions may benefit from befriending their union representatives. If multiple employees have similar complaints about inappropriate classification, confront Human Resources as a group. There is strength in numbers. Any position upgrade, however, must conform to the pay scales and rankings specific to the institution's Human Resources department. If results are not achieved at a local level of Human Resources administration, consulting an HR professional in the central administrative unit may be appropriate.

Salary Issues, Maureen Burns, University of California, Irvine

Education, experience, and job description all play a role in determining appropriate salary. What do you think are the most important criteria in determining staff salary levels? More generally, do you think we as a profession have made progress in this area? Why, or why not?

Maureen Burns responded, "Yes, but more work is needed." The traditional preparation for the visual resources profession has been a Masters in Art History, Art Practices, or Architectural History, or a Masters in Library and Information Science. While an art historical background is still very important, the technological education a library degree provides is highly useful. A masters or doctorate in Educational Technology or Educational Administration may offer additional benefits such as increased status on campus and the flexibility to move into an information or instructional technology career. Whether part of a degree program or not, an internship (whether paid or unpaid, for credit or no-credit) can provide the work experience required for many visual resources positions. The ARLIS/NA Internship roster is an excellent place to begin the search for a relevant position: <http://www.uflib.ufl.edu/afa/pdc/internshiproster.htm>. While Burns has completed a Ph.D. in Educational Administration, this degree did not directly influence either of her last two raises. As in

Karin Whalen's experience, the most relevant factor was the substantial change in her job duties, particularly in regard to digital technology.

What should a visual resources professional expect when negotiating a salary increase? The reclassification of Burns' position was a result of collaboration, research, and personal initiative. First, a positive relationship with your immediate supervisor is vital. Get to know Human Resources staff as well, but be aware of the institutional organizational structure and culture. Respect the institution's hierarchy by going through the chain of command in the appropriate order. The visual resources professional should take the initiative to prepare persuasive evidence for reclassification, including the updated job description. Always keep your own job description current. Research the institution's criteria for promotion.

For Burns, working in the University of California system, organizational latitude, level of supervision, impact, professional knowledge and skills, and creativity and analysis were determining factors for classification within the managers and senior professionals salary range. Her work with the California Digital Library, evolution of responsibilities during the digital transition, entirely new technological responsibilities, and the high level of complexity and broad scope of assignments satisfied these requirements. Burns became involved in assessment projects that revealed the success of digital collections and areas for future improvement. She also conducted new research of colleagues' job descriptions and consulted existing research such as:

- The State University of New York at Albany IMLS-funded Core Competencies for Visual Resources Management at (<http://www.mcn.edu/conference/resources/CoreCompetenciesVisualResourcesManagement.pdf>)
- ARLIS/NA Core Competencies for Art Information Professionals at <http://www.arlisna.org/resources/onlinepubs/corecomps.pdf>
- ARLIS/NA 2004 Art/Architecture Librarians and Visual Resources Professionals Compensation Survey at <http://www.vraweb.org/resources/general/compensation.pdf>
- Kopatz, K. (ed.) *Guidelines for the Visual Resources Profession*. Laguna Beach: Joint Publication of the Art Libraries Society of North America and the Visual Resources Association. 2002.

In response to Burns' presentation, panelists responded to the question, "If you could go back to school tomorrow, what degree would you go for?" The majority of panelists advocated for a library and information science education.

Leigh Gates, Karin Whalen, and Maureen Burns recommended a Library and Information Science degree. Additional suggestions included gaining ample subject experience, learning how to supervise others, and how to ask questions of those who know the answers you need. The MLS complements the MA degree well. It may be most effective, however, to earn the degree while working full-time, especially

for senior professionals with advanced standing. Many online education programs for the MLS exist. For example, Elizabeth Schaub recommended the University of Arizona's online Graduate Certificate in Digital Imaging Management (DigIn), and Kari Smith recommended the University of Michigan's Digital Preservation Management Workshop. A program in New Media Studies is an alternative educational path for visual resources professionals as well.

An unorthodox method of gaining a salary increase, according to John Taormina, is moving. He has successfully gained 20 percent salary increases in each new position in a new geographic location. Receiving a job offer at another institution may enable you to negotiate a new salary at your current institution. The development of an external committee to evaluate your operation in relation to other facilities is another option, which is dependent, however, on available funding and approval of your supervisor.

Declining Budgets, Jenni Rodda, Institute of Fine Arts, New York University

Budget constrictions are affecting all of us, in institutions large and small. What proactive strategies might be used to minimize the impact on staff and services?

Being proactive, a vital part of visual resources administration, was a recurring theme of this roundtable. During this segment Jenni Rodda asked audience members to raise their hands if their budgets had not been cut in the last two years. Only a handful responded affirmatively.

There is nothing fun about budgets, but it is possible to minimize the detrimental effects of a shrinking budget by taking control of it. Answer the questions who? what? where? about your budget. First, who holds your purse strings? Is your funding allocated at the departmental, inter-departmental, or institutional level? Each institution administers its budget differently. Next, what (tuition, grants, endowments, government) controls your budget? Then, where can you make budget cuts, if necessary?

"If you are able to show that you are in control of your own spending, you will be better able to argue that you should be the one doing the cutting."

To take control of your own spending; plan ahead. Make your own calculations, asking yourself, "How will I allocate funds if the budget is cut by 5 percent, 10 percent, 15 percent over one, three, and five years?" Consult those who control your funding—the budget officer, department chair, or library director—to determine the best way to plan ahead. In your projections, prepare for materials and staff cuts. Find out if your funds rollover into the next fiscal year or can be used for specific materials you won't need until the next fiscal year. Where there are potential staff cuts, explore the possibility of employing federal workstudy students or unpaid interns. Finally, keep your patrons informed of reduced services and/or available materials. If possible, ration out your resources in advance. For example, if budget cuts result in less toner for the printer, explain why, and set per-person limits.

Then determine if you could charge for this service to fund additional toner. Explore creative options for outside funding or revenue generation. Collaborate with other departments on grants, consult your development department about obtaining donations, or offer new services such as events photography.

Facilities and Use of Space, Leigh Gates, Art Institute of Chicago

As visual resources has moved away from traditional hard-copy photographic media to digital media, what has been the effect on the use of space, both for collections management and for user services? Is more space needed—or less?

"Not more space, but a different space."

When there is no longer a need for the development of 35mm slides—when faculty, staff, and students have become digitally literate—it is no longer necessary for the analog collection to remain accessible to patrons. If the 35mm collection will be retained, then climate-controlled housing must be arranged. An important intermediary step is the evaluation of the collection, including weeding and consolidation, which permits the proper assessment of the collection as an archive.

The 2007 VRA conference session entitled "35mm Slide Collections: Retention Criteria, Preservation Issues, Donation Ideas" is an excellent starting point. How much space is truly necessary to house the slide collection? When proper consideration is given to institutional guidelines for de-accessioning, disposal, and conservation issues, weeding can also reduce the physical storage footprint of the collection.

Another question to ask before moving the collection is, when patrons no longer require 35mm slides, will VR staff need to access the collection? Consider whether the collection needs to be digitized (in-house or outsourced) in a systematic manner, or if the collection may be used by staff as a finding aid or as a future source of copy photography. Depending on local needs, possibilities for storage include moving collections to new, planned spaces; incorporating collections in existing libraries or archives; transferring collections to climate-controlled off-site storage; or trading the collection spaces for a learning space of another academic unit.

Without a physical collection and without the slide circulation and sorting areas that accompanied it, the VR center may devote more space to ergonomic staff workstations; digital production labs; public terminals for patron scanning, searching, and presentation preparation; and database training facilities. Collaboration with existing audio-visual centers, learning labs, and other departments is key. It may be possible to reduce costs by creating learning spaces or media labs together. Without a physical collection, however, it becomes increasingly important to remain present and visible within your institution. Take full advantage of your virtual "real estate" on the local intranet and institutional Web pages.

Mission, Elizabeth Schaub, University of Texas, Austin

The candy dish may still be in the slide library, but fewer people come by to partake. What do you see as the mission of the image collection in the new, wired environment?

"The primary mission of the School of Architecture's Visual Resources Collection is to support faculty, students, and staff members by providing a sustainable and searchable collection of slides and digital images, analog projection equipment, photography facilities, and training to support classroom teaching and educational needs, scholarly research, and administrative projects." —University of Texas School of Architecture Visual Resources Collection Mission Statement, 2006–2009

Why is the question of collective mission important? First, there has been a precipitous drop in traffic into the physical spaces of visual resources centers. Second, faculty and students are using other means to find what they need. Third, there's a perception that "everything is digital and everything is on the Web" so the question arises "why do we need to create new content?" And, fourth, institutions are facing shrinking budgets and administrators are looking at ways of cutting costs. Schaub's revision of her mission statement and strategic plan for academic years 2009–2012 responded to these new concerns. The basic purpose of her collection, however, remained the same: there is a need for a sustainable and searchable collection of content that is produced in support of local concerns.

First, the precipitous drop in traffic into the physical spaces of visual resources centers is an outreach challenge. Visual resources professionals must become more savvy about marketing resources and services to faculty, students and administrators. We can't expect them to come to the VRC. We have to go to them. How? Attend faculty meetings; attend student orientations. Schedule regular meetings with your immediate supervisor, and meet one-on-one with faculty in their offices to learn about their teaching and research interests. Make image ordering fast and easy by using a Web-based form rather than a PDF that they have to print and deliver. An online presence is a vital part of outreach: establish an online presence on social networking sites such as Flickr, Facebook, and Twitter.

Second, that faculty and students use other means to find what they need is a marketing challenge. Visual resources professionals need to advertise! If faculty and students do not know that our resources exist, why would they use them instead of going straight to Google or Flickr? One basic marketing technique is regularly communicating with customers via e-mail. Establish a means to update faculty and students about the availability of content that meets their specific needs. Consider creating a blog. Get the word out that visual resources professionals can answer questions about copyright issues.

Third, the perception that "everything is digital and everything is on the Web," which leads to the question

"why do we need to create new content?" is an opportunity to educate our users and administrators. That statement is a myth. It is also an opportunity, however, to remind administrators that it is imperative to think not only of current faculty, but future generations of faculty and students. The work of a visual resources professional, in concert with faculty, contributes to the university's overall asset base.

Fourth, shrinking budgets and cost-cutting measures create an opportunity to discover how visual resources work is relevant not just for local departments, but for the entire university community. This is a good time to proactively begin a conversation about how visual resources work supports the broader university mission, not just the mission of the department, in order to develop an alternative funding model. The current economic climate makes it more desirable to acquire content more cheaply from your user base; faculty and students can provide you with digital documentation. This is another opportunity for outreach and collaboration.

Finally, visual resources centers working in close proximity to large slide collections help perpetuate the idea that the work of visual resources professionals is antiquated and no longer necessary. This is an identity challenge. Visual resources professionals may need to refer to themselves differently; perhaps as digital asset managers or curators.

Consider the *New York Times* "Fresh Starts" column titled "Digital Archivists, Now in Demand," published February 7, 2009. The article, which profiled Jacob Nadal of UCLA, states that approximately "...20,000 people work in the field today—plus others in related areas..." and the expectation is that that number will "...triple over the next decade." The article continues, "Mr. Nadal and 10 or so colleagues at UCLA devote much of their effort to organizing and protecting material in digital form. Their duties include licensing and buying digital content from vendors, assigning identification markers called meta-tags so that material can be found easily, researching copyright matters and ensuring that files remain intact whenever new iterations of relevant software or hardware come along." Doesn't this sound familiar? There is no doubt that things have changed. Given the nature of our work and the expertise we offer, however, the digital asset curator is just as relevant, if not more so, in the digital age.

Managing Change, John Taormina, Duke University

Making progress in an environment in which it seems we have little control is a daunting process. What strategies would you suggest to stay both sane and focused as we continue to move forward as a profession?

Instead of "managing change," John Taormina suggests that visual resources professionals become agents of change. The visual resources center should not remain a static collection of digital images and legacy media surrogates, but emerge, reinvented, as an information center actively involved in new curricular developments and institutional initiatives.

Collection development has ceased to be accomplished exclusively at the local level. No longer one-

stop shopping at the boutique, it has become, in a sense, shopping at the mall. Visual resources professionals need to instruct patrons in the effective use of a combination of locally created resources, campus-wide resources, museum Web sites, the Internet, Google, and licensed image databases. Visual resources professionals championed ARTstor, and ARTstor now provides nearly one million images. Will it ultimately put the profession out of business? Probably not, since they cannot accommodate the idiosyncratic images needed to support local curricular offerings.

One way to increase your relevance is to deliver images to your primary patrons as fast as possible; otherwise they will go elsewhere. If a faculty member can scan images at home, and is willing to do so, the visual resources center no longer needs to exist. Likewise, an unwillingness to serve and consistent contrariness will not only drive patrons elsewhere, but will result in a lack of supportiveness for your operation when it is most needed. Additionally, execute directives from your bosses, regardless of their connection to your original job description: participating in unit priorities keeps the visual resources professional involved. Accept increased professional responsibilities within the unit such as training, newsletter creation, operation of new media equipment and software programs, and development of new spaces and functions or repurposing old ones. In summary, look at issues and projects beyond the traditional responsibilities of a visual resources professional. Visual resources professionals need to repurpose their existing spaces and functions, just as libraries and museums are repurposing theirs. It is no longer possible to remain simply repositories, physical or virtual, for images.

One controversial concept to consider is the reduction of time and staffing devoted to metadata creation. Just as libraries often outsource cataloging, it may be practical for visual resources facilities to shift their purpose away from this responsibility. Taormina's personal experience has shown that patrons want images for teaching as soon as possible and do not require elaborate metadata. Additionally, current staff size or shrinking staffs do not allow for it. A centralized shared cataloging utility with a minimum set of fields would eliminate the need for VR professional to create hundreds of duplicate catalog records across the country for an image as basic as the Mona Lisa.

Collaborate (within the institution and without) when appropriate. This brings together different expertise, ideas, staffing, funds, etc. It also looks favorable to granting agencies. Don't duplicate existing positions and functions. In the current era of downsizing, consolidation is the goal of administrators. Do whatever you need to do to stay relevant. If your patrons do not benefit from your operation, what is their incentive to retain your services?

Additional Questions and Responses

In these financial times, when budgets are shrinking, how does the visual resources professional repurpose staff? Often departments won't increase pay for new responsibilities,

but staff job descriptions still need to be changed.

Human Resources can be very supportive. New duties often fall in the purposely vague areas of job descriptions. An institution may require documentation of a substantial, sustained increase in responsibilities, but each institution is different. From another point of view, changing job descriptions can be positive for the manager as well as the staff. It gives staff the opportunity to work on new projects that interest them. It is possible to make yourself invaluable by diversifying your position. Christine Sundt recommends the incorporation of empowering language into job descriptions. One strategy is to use words from position descriptions higher than your own; don't underestimate the value of your work. One purpose of the visual resources profession in the coming years may be to help ensure the survival of fading disciplines in the humanities. As managers rather than art historians, visual resources professionals have the tools and the proactive inclination required to sustain these disciplines.

Presenter Biographies

Maureen Burns is the Humanities Curator in the University of California, Irvine's Visual Resources Collection. Burns' current research interests are focused on digital image service usability, assessment, training, and marketing. Her current professional activities include co-chairing the VRA's Digital Initiative Advisory Group and stepping up as the VRA's president-elect in 2009. She has a doctorate in Educational Administration from the joint Leadership program at UCI and UCLA and a M.A. in Art History focused on Roman Art and Archaeology.

Leigh Gates is the Visual Resources Librarian at the MacLean Visual Resources Center, Ryerson Library, The Art Institute of Chicago. She began oversight of the slide collection at the Art Institute of Chicago over twenty-three year ago, armed with a B.A. in art from Trinity University in San Antonio and an M.A. from the University of Texas. She has overseen the transition of a slide collection of a half million slides to a digital environment used jointly by the staff of the museum and the faculty and students of the School of the Art Institute of Chicago.

Jenni Rodda is the Visual Resources Curator at NYU's Institute of Fine Arts. She has held positions with museums and publishers, in addition to academia, and is a regular contributor to the *VRA Bulletin*, most recently as the guest editor for the issue "The Digital Transition: Perspectives from Art Historians." She holds an AM (ABD) in art history from Brown University, with a specialty in seventeenth-century German architectural theory. She considers herself an art historian before anything else.

Elizabeth Schaub has been Director of the School of Architecture's Visual Resources Collection at The University of Texas at Austin since 1997. In 1991 she received a Bachelor of Arts degrees in Political Science and Practice of Art from the University of California, Berkeley and a Master of Library and Information Science with a concentration in Archival Enterprise

from The University of Texas at Austin in 1997. She has been a member of the VRA since 1999. Since 2005 she has served as the Associate Editor of the *VRA Bulletin*.

John Taormina is the Director of the Visual Resources Center in the Department of Art, Art History & Visual Studies at Duke University. In the VR profession for twenty-seven years, John has been at Duke for the past eight years, with previous positions at the University of Michigan, The Ohio State University, Oberlin College, and George Washington University. He previously served as *VRA Bulletin* editor for nine years and on the VRA Executive Board for seven years. He was co-chair of the ARLIS/NA-VRA Joint Education Task Force that developed the Summer Educational Institute, which was held at Duke University for its first two years (2004 and 2005). In 2005 he was the recipient of both the VRA Distinguished Service Award and the VRA Nancy DeLaurier Award.

Karin Whalen holds a Masters in Art History from the University of Oregon. She is the Visual Resources Librarian at Reed College, and has regularly presented papers, organized sessions, and co-taught workshops at our annual conferences and at the ARLIS/NA-VRA Summer Education Institute (SEI). Karin was a founding member and first chair of the VRA Pacific Rim Chapter and currently serves on the VRA Education Committee. She is teaching a workshop on Issues in Visual Resources Administration for the 2009 Toronto conference. ♡

*Session 6:***Bricks to Bamboo: Cataloging and Photographing the Materials Library****Abstract**

A Materials Library is often an important component of the curriculum in the teaching of architecture, structural engineering, and the built environment. Cataloging, capturing, and displaying such a collection of materials, examples, and product samples presents formidable challenges. This session will include several presentations by architecture curators with experience in managing or developing Materials Libraries in academic settings. The cataloging of unusual materials will be addressed, along with conceptual and practical issues. ♪

¹Pedagogy for Materials Research & Design: From the Pragmatic to the Visionary

Zaneta H. Hong, Former Materials Lab Curator, University of Texas in Austin, Adjunct Professor in Architecture and Landscape Architecture, University of Virginia

Abstract

The Materials Lab at the University of Texas at Austin School of Architecture is one of the first academic materials collections; and it has served as the benchmark for many architecture and design schools when establishing their own in-house materials collections. The foremost goal of the Materials Lab is to encourage its users to design critically bearing in mind the sustainability and performance of material choices in the constructed environment. By having a greater understanding of material attributes, individuals have the potential to generate informed decisions, reassess the meaning of craft, and drive innovation in design and fabrication. As the former Materials Lab Curator, this paper presents my experiences and perspective in developing this specialized resource facility; the methodology to which materials education can be applied to courses in architecture and design-related disciplines; and how the materials collection itself can enrich both materials research and culture.

To continue an on-going development of materials research and education, key ideas have to be consistent in order to sustain the future of a materials collection. These included:

1. A materials collection needs to provide individuals a dependable resource for materials research and design. More importantly, the resource needs to foster individual interpretations and the self-empowerment to choose materials and make effective design decisions.
2. A materials collection needs to provide individuals an understanding to the full description of material qualities and capabilities in order to innovate towards new advancements in technologies, systems and design. These material qualities are acknowledged in the lexis provided by the Materials Lab collection database and Web site, and needs to be continually advanced by design educators.
3. A materials collection is a repository for not only outputs from the commercial manufacturing process, but also the research and design taken on part by academia and design practioners. The resource needs to integrate practice and the design process, and incorporate outputs from all phases of material fabrication from the conceptual design phase to construction and maintenance.

The term 'laboratory' extends the notion of a facility with controlled conditions allowing for the possibility of

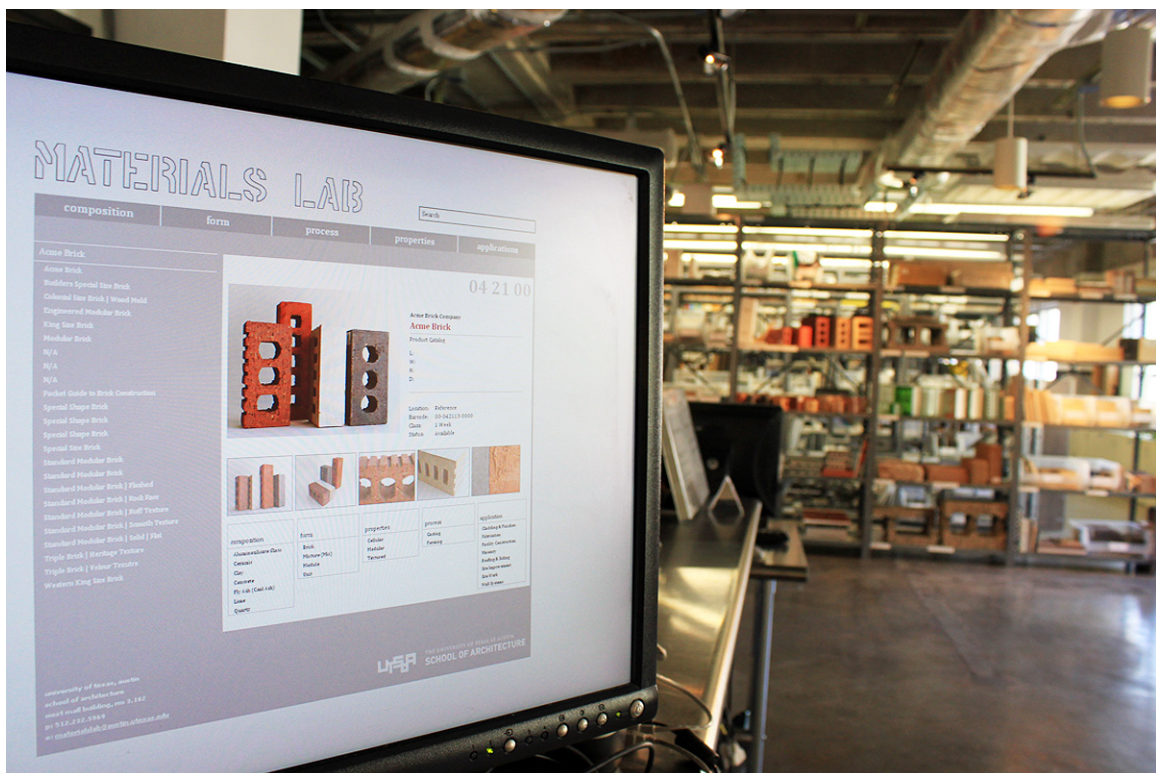
experimentation, research, and teaching. These aspects are important in describing a materials collection. The Materials Lab was explicit in the naming of its resource as a laboratory, and does not impart itself as a materials library. To be only a collection of sources and services restricts the possibilities, future growth and sustainability of a materials collection. This is a reality that becomes increasingly apparent as designers base more and more of their discipline's knowledge in an advancing technological realm. In many ways, this is also a challenge more traditional libraries are facing as the quantity and quality of alternatives in where and how we source information grows.

In describing the pragmatic potentials of a materials collection, it is providing a working educational facility for an architecture school. A materials collection proves itself as an integral resource that provides more than singularly the hands-on-material experience to architectural discourse. Students understand materials at the most basic one-to-one scale, where simple material contact provides an unparalleled understanding in visual and perceptual sensibilities. To see, touch, smell, and hear are part of the training in becoming a well-informed individual and more directly, a successful architect and designer. To begin to discuss the visionary intentions of a materials collection begins in the choreography of the collection's composite layers of programmatic features. However, it is just as essential to allow for a necessary

flexibility, overall insistence and constant energy in a materials collection to serve as an inspirational body.

Introduction

The Materials Lab collection is one of the largest and most comprehensive materials collections of its kind at any college or university in the nation. The collection was initiated in 2001 and was largely funded by a university grant awarded by the University of Texas at Austin University Co-op Society.¹ In 2008, at the beginning of my tenure as the Materials Lab Curator, the collection consisted of approximately 1,700 material samples focused on two of the School of Architecture's disciplines—architecture and interior design. Its central purpose served largely as a repository for material samples. The lab's operations were enacted similar to a library system, where the circulation of its holdings was made available to patrons of the university. However, most of these patrons—faculty and students of the architecture school—under-utilized this resource. A key element of its under-utilization was its lack of a clear and coherent organization in both the physical collection and corresponding collection database. Consequently, this prevented the materials collection from serving one of its main functions—an accessibility and convenience to search and obtain specific material samples. This problem was in large part caused by the amassing of an



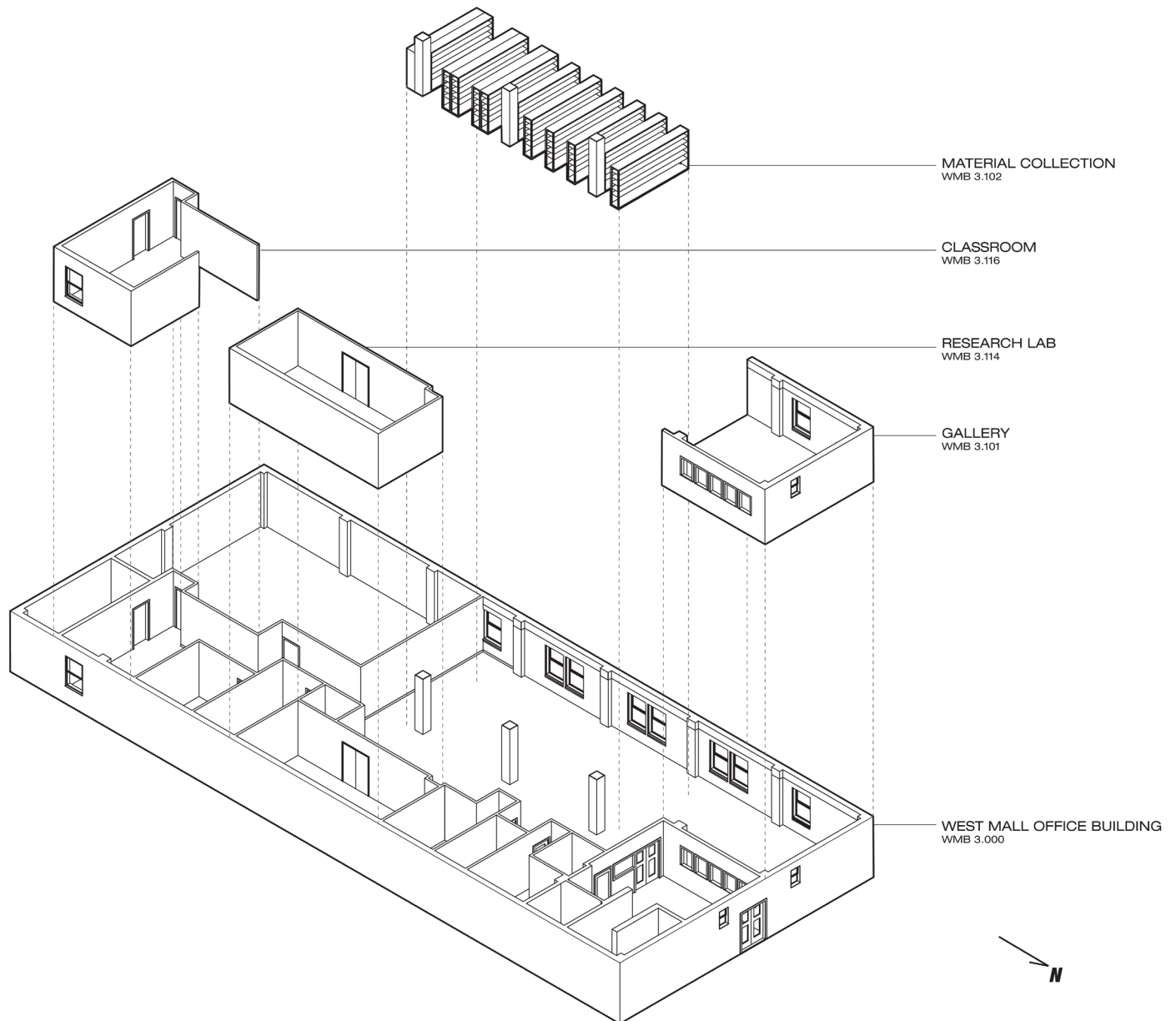
overwhelming surplus of outdated catalogs and redundant material samples, which in turn prevented the allocation for new and incoming samples. Though the Materials Lab was a great undertaking in its inception, a reliance on conventional cataloging methodologies tended to serve professionals more than those in the academic community. And as such, students often found the materials collection unclear and inaccessible, in terms of how one can incorporate materials into an academic research and/or academic studio project.

As I began my tenure as the University of Texas at Austin Materials Lab Curator, I set out to re-evaluate the materials collection as an essential educational resource for

the architecture school and more importantly, to re-integrate the lab into the architecture school's design pedagogy. This reevaluation and reintegration developed as the new vision for the Materials Lab.

The Materials Lab vision borrows from my previous experience as a materials researcher for the Harvard Materials Collection.² One of the resource's defining principles was its methodology of integrating materials education and research culture within the design school. The Harvard collection comprised of two significant sets of materials samples—commercial and research. The commercial materials were products that were actively acquired from manufacturers

Figure 1. Materials Lab space, restructuring of programs in the materials collection



and vendors by the collection's staff of material researchers. Products were a range of architecture and landscape architecture related materials that were relevant to the research of each respective materials researcher or faculty member. The research materials, on the other hand, were samples fabricated by the school's faculty and students as part of a series of structured design courses, which examined material usage and deployment. Within the Harvard Materials Collection's database individual faculty and student names would appear as part of the materials search within the same hierarchy as commercial vendor searches.

These two aspects—materials research and collection database—became key components in achieving my vision of heightening materials education within the Materials Lab and the University of Texas at Austin School of Architecture.

Today, the Materials Lab has a growing collection of over 26,000 material samples and corresponding product literature. During my first year, the content of the collection expanded with the addition of materials specific to landscape architecture and product design—this was accomplished in order to support the developing disciplines within the School of Architecture and the university. The collection had previously consisted of mainly traditional building construction materials; however, it was my mission to be reflective of the current building and design trajectories, and have a particular focus on smart, innovative, emerging, and sustainable design materials and technologies. One of the Materials Lab's goals was to maintain a current and up-to-date collection, and its staff of materials researchers served to continually contact manufacturers and vendors to acquire new and innovative samples.

The Materials Lab's users have also grown to comprise additional graduate and undergraduate students and faculty in the School of Architecture. Once consisting of patrons from primarily the Architecture and Interior Design programs, the Materials Lab's users expanded to include individuals from the Landscape Architecture, Sustainable Design, Urban Design, Community and Regional Planning, Historic Preservation, and Architectural History programs. Additional schools and departments within the University of Texas at Austin who have also utilized the materials collection are the School of Visual Arts, School of Human Ecology, School of Engineering, and the Department of Computer Sciences. The Materials Lab was also open to alumni, local design professionals, public organizations, and the general community.

The vision of the Materials Lab is to provide patrons the knowledge and expertise in materials and technologies, while developing a core practice and code of value when designing and constructing for the built environment. And in such, it is the Materials Lab's mission to offer an inspirational and interactive environment where the academic community can engage a large spectrum of material samples, technologies, and fabrication methods. Because of its close ties to manufacturers and vendors, the lab is an important conduit between academia and industry, introducing faculty

and students to materials through collaborative research projects, design-build studios, student competitions, and workshop presentations.

As part of developing a materials collection was the manufacturing of a strategic plan that offered goals and objectives that were both in line and challenging to the educational goals and future track of the architecture school. It was a means for focus and guidance for the Materials Lab—allowing for assessment and evaluation, as well as a tool for advancements particular to collection development. There are four main topics—1) Research and Environment, 2) Curation and the Collection Database, 3) Community Outreach and Organized Activity and 4) Materials Education—that I brought forth in the development of the Materials Lab strategic plan, and each of these areas were distinct in producing the new vision for the materials collection.

Research and Environment

The university environment generates a unique opportunity for interdisciplinary and multidisciplinary research, where faculty and students have an opportunity to collaborate with other disciplines in the hopes of inspiring one another towards greater innovation. And as such, academia is a principal generator for materials research and design—an epicenter of emerging discoveries and technological accomplishments. This is an environment where central issues in ecological sustainability are taken in balance with aesthetics, social needs and desires, and economics. As part of the redevelopment of the Materials Lab, I wanted to create a defined space for collaborative explorations as well as a space to exhibit the output from those explorations. In doing so, it would foster a larger discourse in advent to advanced materials research within design disciplines and their adjoining fields.

- Goal 1
Provide an instructional and inspirational environment, where students and faculty can experience the physical reality of materials, encourage creative exploration and discoveries, and provide interdisciplinary interactions with meaningful discussions.
- Objective 1.1
Design a well-organized, user-friendly, and up-to-date lab space that can accommodate enhanced and critical materials research, examination, and visualization.
- Objective 1.2
Promote intellectual advancements in material knowledge and fabrication by providing programs including lectures and workshops that support materials education and the exhibition of student and faculty work based on material design, research, development, and fabrication.

During my first year as the Materials Lab Curator, the entire lab space was restructured to introduce a series of programmatic spaces that emphasized the goals and objectives inherent in the Materials Lab mission and the School of Architecture (see Figure 1). These goals and

objectives evolved and further advanced the integration of research practices as part of the design process, and also became an initiator for the development of interdisciplinary

and multidisciplinary collaborations within the Materials Lab. The Materials Lab is approximately three thousand square feet; and the heart of the lab is the material collection itself.

Figure 2. Materials Lab exhibit: *Constructions in Paper*, undergraduate and graduate student work from three School of Architecture design studios instructed by Michael Leighton Beaman (Assistant Professor of Architecture), Danelle Briscoe (Assistant Professor of Architecture) and Igor Siddigui (Assistant Professor of Interior Design)



The Materials Lab gallery, Advanced Materials Research Lab, classroom, circulation area, curator's office and storage space, all supported the central core and facilitated in its overall efficiency in operations.

Most significant to the restructuring of the Materials Lab was my introduction of a new research lab/classroom—the Advanced Materials Research Lab—and a gallery space.

The Advanced Materials Research Lab was designed to provide university-wide faculty and students and professionals in the design and manufacturing industry a collaborative staging area to pursue advanced materials design and fabrication. The classroom was equipped with a flat screen television, laptop connections, mobile furniture, and a magnetic marker board. As part of publicizing this advanced research, outputs from these collaborations were exhibited in the Materials Lab gallery and/or catalogued directly into the materials collection database. The Materials Lab also has a second interactive classroom space that was equipped with a SMART board, PC computer, laptop connection, teleconference phone, AV capabilities, media speakers, and marker board. With these two classroom spaces—and their immediate proximity to the materials collection—individuals could take advantage of the collection's contents. This in turn served to fuel a mode of active research that made the Materials Lab a more embedded player in the design process.

The gallery space was intended to allow faculty and students to present and publicly exhibit their work to the audience of the university and the larger metropolitan community. Showcased work was a range of explorations accomplished from the collaborations of the Advanced Materials Research Lab and the School of Architecture's design studios, seminars and independent studies (see Figure 2). Collaborations between myself, a School of Architecture faculty member and students have occurred each academic semester in order to provide the Materials Lab with a fresh and continuous line of exhibits. These exhibits are essential in providing a network of visual communication delved in both formal discourse and informal interaction between the School of Architecture and university. They have served as the impetus for the exchange of ideas between disciplines, and have fostered the relationships for prospective collaborations.

Curation & the Collection Database

The Materials Lab collection and database was redesigned to support and expand upon the integration of materials education with the School of Architecture design curriculum. It was important to curate the collection to support the school's undergraduate and graduate design programs. However, it was also important that the method of accessing information about materials occurred in both a practical and conceptual means. To this end, we began to work on a new cataloging system that addressed the way in which faculty and students could engage materials during multiple phases of their design process.

Within the early stages of conceptual design, individuals could explore the materials collection and discover new and unforeseen possibilities with an undefined selection of materials. Novel modes in application and formal explorations could be investigated and experimented. During the stages of further design development, individuals could narrow their investigations to a particular set or sets of materials that would provide the minimum parameters for design construction. Specific material samples were tested and analyzed. And finally, as part of the construction phase, individuals could specify materials with detailed properties in dimensions, performance, manufacturing process, and phenomenological considerations. These attributes offered the final finishes for human and environmental interface. The organization of the physical materials collection and the redesign of the collection database were fashioned to allow for these multiple routines in active performance and functionality as they were integrated as part of the design process.

- Goal 2
Manage, maintain, and actively acquire new materials and corresponding product literature representing current trends in building materials and technologies with a particular emphasis on smart, innovative, emerging, and sustainable design materials.
- Objective 2.1
Support the integration of materials education in the design curriculum by curating a collection that is applicable for the School of Architecture.
- Objective 2.2
Research innovative materials and related technologies, and assist students and faculty with materials for studios, seminars, and independent studies.
- Objective 2.3
Provide an on-line electronic database that catalogues the material collection and allows for the circulation of materials to be loaned, returned and renewed by its patrons.

Catalogued along with manufactured commercial products are research and design projects fabricated by the School of Architecture faculty and students (see Figure 3). Inspired by my work with the Harvard Materials Collection, material explorations originating from the introductory core and advanced design studios, construction, and technology seminars, and independent and thesis studies were catalogued similar to commercial products. These explorations were exemplary in their materiality and methods in fabrication, and provided an inspiring precedent for future research and project integration. On most occasions, these projects were exhibited in the Materials Lab gallery before being catalogued as part of the materials collection and database.

The School of Architecture fabrication capabilities included the wood shop, laser cutter and engraver, CNC router, 3D printers, and thermoform machine. Each of these material technologies provided their own set of parameters respective to software, dimensions and construction materials;

and each of these provided an output with an impressive range of visual and functional prototypes. In exhibiting and cataloging fabricated faculty and student work, it provided insight into the architecture school's technological resources—an aspect that was essential for developing university exposure, promotion and recognition. But more importantly, in the co-existence and collaboration of these university resources, it provided the pedagogical bond necessary for collaborations in materials research and design construction. To fabricate and test material explorations, these were integral parts to the design process and provided an incomparable education and experience of understanding materiality to its fullest.

The Materials Lab's collection database was the on-line means to connecting the physical materials collection

housed at the University of Texas in Austin main campus to not just the School of Architecture, but the entire design community³. The custom design and development of the collection database was a collaborative effort between the Materials Lab, the University of Texas at Austin Information Technology Services, and the School of Architecture Information Technology Services. Initiated in spring 2009, the collection database is ongoing in its updates and improvements.

The overall design of the collection database provided a classification system that was based on five material categories: composition, form, processes, properties, and applications (see Figure 4). In doing so, users would have the option to search for materials at both the extensive and much more specified scale of investigation. Composition, processes

Figure 3. Materials Lab collection database with search results for School of Architecture research materials

The screenshot shows the Materials Lab collection database interface. At the top, the text "MATERIALS LAB" is displayed in a large, outlined font. To the right is a search input field containing the word "Search". Below this is a navigation bar with five tabs: "composition", "form", "process", "properties", and "applications". The "composition" tab is selected. On the left side, there is a sidebar with filter options: "Filter by Category:", "Manufacturer" (set to "School of Architecture"), "Composition" (set to "Any"), "Form" (set to "Any"), "Process" (set to "Any"), "Properties" (set to "Any"), and "Application" (set to "Any"). Below these filters is a search word input field containing "school" and a "Search" button. The main content area displays search results in a grid. The results are as follows:

- Wood Shop**: School of Architecture. Image shows a workshop with tables and tools.
- Digital Fabrication**: School of Architecture. Image shows a CNC machine cutting a piece of wood.
- Materials Lab | S. Duncan**: School of Architecture. Image shows two pieces of textured, fibrous material.
- Constructions I | Professor Billie Faircloth**: School of Architecture. Image shows a rough, layered material sample.
- Common Work Results for Concrete**: School of Architecture. Image shows several cylindrical concrete samples.
- Materials Lab | S. Gary Roberts**: School of Architecture. Image shows a complex mechanical assembly.
- Adobe Brick Block**: School of Architecture. Image shows a single, textured brick block.

At the bottom left, contact information is provided: "university of texas, austin school of architecture west mall building, rm 3.102 p: 512.232.5969 e: materialslab@austin.utexas.edu". At the bottom right, the logo for "THE UNIVERSITY OF TEXAS AT AUSTIN SCHOOL OF ARCHITECTURE" is displayed. A page number "1" is visible in the bottom right corner of the search results area.

and applications each provided a hierarchy of parent-child data that provided users an option to search for both general and specific material attributes. For example, the parent data for composition included ceramic, composites, glass, metal, natural and polymer. The child data for a single parent composition, for example ceramic included concrete, ceramic tile, cement, clay, porcelain, plaster of paris, terracotta, and silicon. Each of these material options further defined, allowed for unique distinctions in regard to a material's chemical and mechanical qualities. The use of parent-child data articulated the crafting of particular wants and needs when developing a materials palette; however, still provided the user the option to explore subtle differences. In the case of form and properties, these two categories provided general lists of material options. All of these options could be edited and/or deleted from the collection database by the Materials Lab staff, while new

options could have been added as well. On the public Web site, bracketed numbers are located adjacent to each material option. These numbers represented the current calculation of material samples—specific to each material option—and currently available for circulation in the physical collection.

The Materials Lab collection database was designed to catalogue materials in three distinct levels of data sets—manufacturers, products and items. As part of collecting manufacturer data, this involved the identification of basic contact information: manufacturer name, street address, city, state, zip code, country, phone number, email address and Web site url. As well, the manufacturer's subsidiary and year of collection acquisition was catalogued as part of the required catalogue entries.

As part of the cataloging of products, a range of essential information was researched and catalogued by

Figure 4. Materials Lab collection database Web site

The screenshot shows the Materials Lab website interface. At the top, the text "MATERIALS LAB" is displayed in a large, stylized font. To the right of this text is a search bar with the word "Search" inside. Below the header is a navigation menu with five categories: "composition", "form", "process", "properties", and "applications". The main content area is a grid of material categories, each with a list of materials and a count in brackets. The categories are: CERAMIC, COMPOSITES, GLASS, METAL, NATURAL, and POLYMER. At the bottom left, contact information for the University of Texas at Austin School of Architecture is provided. At the bottom right, the logo for the University of Texas at Austin School of Architecture is displayed.

| composition | form | process | properties | applications |
|-----------------------|-------------------------------|------------------------|---------------|--------------|
| CERAMIC | COMPOSITES | GLASS | METAL | |
| Concrete [77] | Glass Fiber Fiberglass [61] | Silica [7] | Steel [107] | |
| Ceramic Tile [44] | Engineered [43] | Glass Ceramic [1] | Aluminum [92] | |
| Cement [42] | Plywood [16] | Soda Lime Glass [1] | Brass [21] | |
| Clay [24] | Particleboard [12] | Borosilicate Glass [1] | Zinc [17] | |
| Porcelain [17] | Oriented Strand Board [12] | Lead Glass [0] | Copper [17] | |
| Plaster of Paris [12] | Shape Memory Alloy [3] | | Bronze [8] | |
| Terracotta [10] | Shape Memory Polymer [2] | | Iron [1] | |
| Silicon [1] | | | Tin [0] | |
| NATURAL | POLYMER | | | |
| Wood [156] | Polyvinylchloride [107] | | | |
| Mineral & Stone [148] | Polyester [83] | | | |
| Paper [95] | Polyamides [66] | | | |
| Cotton [81] | Polymethyl methacrylate [40] | | | |
| Resin [32] | Polyethylene [38] | | | |
| Leather [23] | Polypropylene [36] | | | |
| Grass [14] | Polycarbonate [27] | | | |
| Silk [7] | Cellulosics [20] | | | |

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 SCHOOL OF ARCHITECTURE

the Materials Lab staff (see Figure 5). Product data included product name, primary CSI Master Format number, secondary CSI Master Format number, tertiary CSI Master Format number, and location (row number in the physical collection). CSI is an abbreviation for The Construction Specifications Institute⁴; and their publication of the CSI Master Format 2004 system had been implemented as an integral part in the cataloging of each respective product, as well as its location within the physical materials collection. It should be noted that the CSI Master Format system was an educational means for students—to have them be exposed to the design profession's standards and its utilization in construction documentation. The Materials Lab offered fifteen of the forty-eight divisions represented in the CSI Master Format, including those categorized in the Facility Construction Subgroup, Facility Services Subgroup, Site & Infrastructure Subgroup and Process Equipment Subgroup. The CSI Master Format however has its limitations for an academic materials collection—in the case of designating a single CSI number to a particular product. Each CSI number and corresponding category name classifies a particular material composition and/or material application(s); and it can be very detailed or very broad in its classification. In order to resolve this issue, the Materials Lab collection database was designed to record three sets of CSI numbers for the accounting of multiple material categories. In doing this, users still had the potential for eliciting creative options that were imparted by the flexibility of the database application.

Most important to the cataloging of a product was the ability to upload photographs, including construction details and on-site documentation. The majority of these photos—taken by in-house student photographers—were seen and accessible on the Materials Lab public Web site.

To complete the data collection for product cataloging was the researching of the product's composition, form, properties, processes, and application. This information comes predominately from manufacturer-supplied documents (i.e. product catalogues, brochures, MSDS sheets, multimedia, manufacturer Web site, etc.), and was accomplished by the Materials Lab staff. It was integral to have the staff of materials researchers, who are graduate and undergraduate students in the School of Architecture take on this task—lending their most essential perspective on how other students could utilize this information as part of design and research projects. By contributing in this manner, they could also impart their own materials education to patrons and users of the collection and database.

Identifying Item data included item model number/type (provided by the manufacturer), dimensions, location (row number in the physical collection), corresponding barcode number, circulation class, and circulation status. Implemented in 2009, the Materials Lab barcode number was designed with a 12-digit system. The first set of two digits designated the location or row number in the physical collection. At the time of my tenure, the materials collection had ten rows of material samples and a reference section designated for all

product catalogues and multimedia. The second set of six digits designated the primary or secondary CSI number, and the last set of four digits represented its sequential order in collection acquisition. The circulation class provided a default for a 1-week loan and additional options were for a 3-day loan (for high demand materials) and non-circulating (for material samples designated as high demand and too fragile for circulation). The circulation status provided Materials Lab staff and patrons of the material sample's availability; and was catalogued as available, on loan, non-circulating, missing/lost or in technical services.

As part of the custom design of the Materials Lab collection database was the operations for both the cataloging and the circulation of materials. The process of circulating materials was streamlined with the development of the new database, as it was also incorporated the advanced software programs provided by the university's Information Technology Services (see Figure 6). Individuals could simply provide their university ID and be registered as an active patron. Those who were not part of the university system could register with a temporary university ID to immediately check materials from the collection.⁵

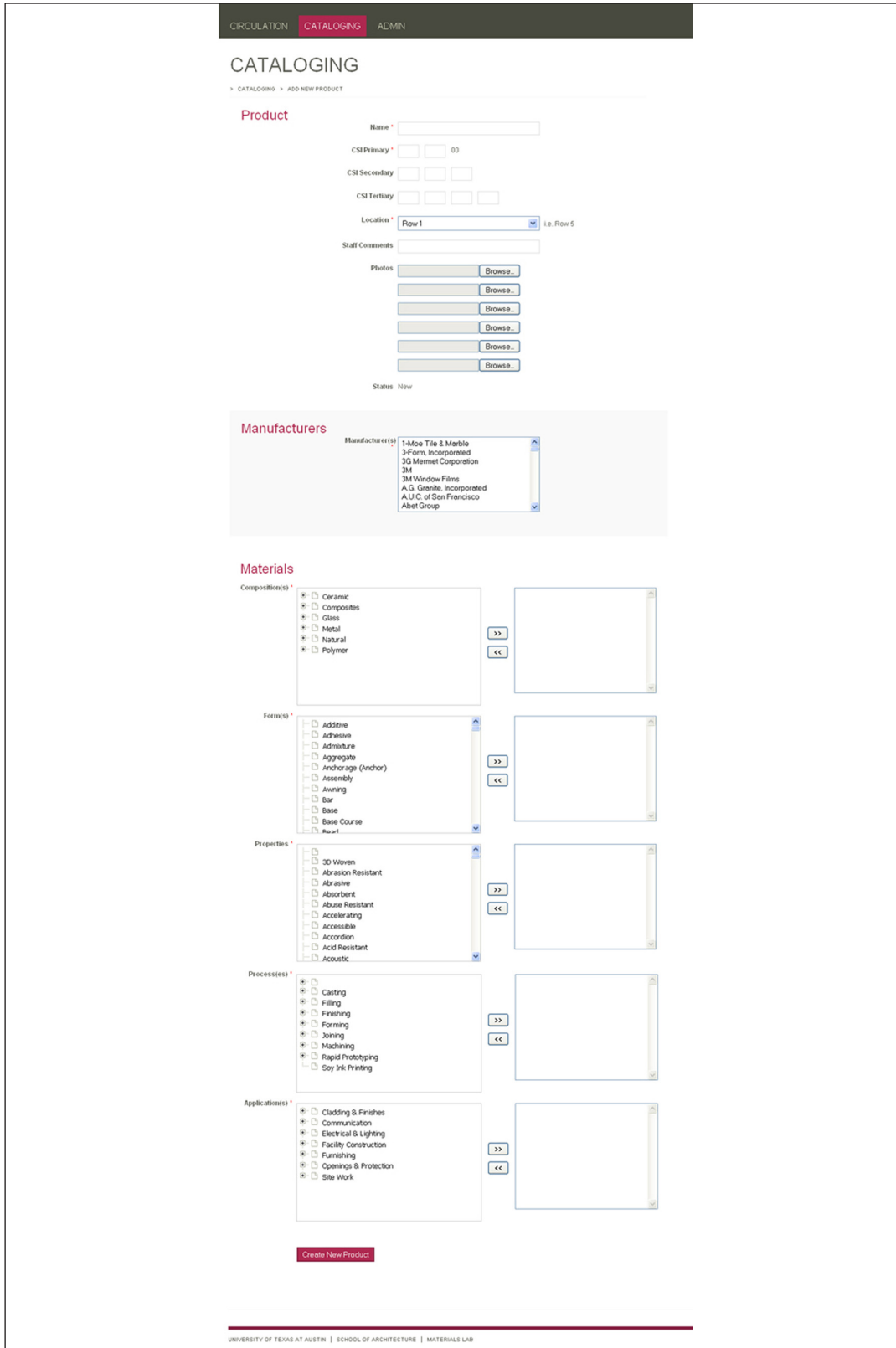
Community Outreach & Organized Activity

Part of my vision for the Materials Lab was to encourage individuals to understand the importance of how and why we use a materials collection, and subsequently how and why we come to the decisions in specifying material choices for the constructed environment. Issues in sustainability and social and ecological responsibility are emerging topics in both public and design discourse, and materials collections are becoming the venue to answer these questions.

- Goal 3
Promote the materials collection in both its purpose and value to the School of Architecture, the university and design community.
- Objective 3.1
Host public presentations, workshops, exhibits and tours for the School of Architecture, in addition to university-related and non-university related organizations.

Though the Materials Lab was focused on the School of Architecture, it was integral for me to see that the lab engaged other schools and departments within the university and organizations within the greater metropolitan area. The Materials Lab has hosted a number of events and tours specifically catered to the School of Architecture, the university and design community. Some examples of events during my tenure included Explore UT,⁶ University of Texas in Austin Undergraduate Research Week,⁷ UT Environmental Science Institute Hot Science—Cool Talks,⁸ and Career Week reception.⁹ As well, the Materials Lab provided tours for local organizations, including the Austin American Institutes of Architects (AIA),¹⁰ Arthouse at the Jones Center,¹¹ and Casa Verde Builders (CVB) American Youthworks¹² (see Figure 7).

Figure 5. Materials Lab collection database: Cataloging a new product



These organized activities enlivened the Materials Lab, and more importantly brought greater purpose and functionality to the lab at a community scale. It reinforced the notion that the Materials Lab was no longer solely a space that housed a materials collection, but a university and community center for materials education and inspiration.

- Goal 4
Develop and maintain an open and working relationship with entities on campus and beyond, thus exposing the Materials Lab's many assets.
- Objective 4.1
Develop a partnership within the design and building industry becoming the essential link between the School of Architecture and manufacturers.

As part of curating the materials collection was the responsibility to seek out materials and trends outside traditional avenues. Important to this aspect was also maintaining key and essential relationships within the building and manufacturing industry. The majority of the material samples from the collection were donated from manufacturers; however, there was a necessity to have continuous maintenance in order to sustain itself as a current and up-to-date collection. Representatives from manufacturing companies scheduled annual or semi-annual visits in order to provide their most trendy product lines, and on some occasions have provided educational workshops for faculty and students. During these events, manufacturers would bring their in-house designers, engineers, and skilled technicians in order to demonstrate the product's properties, manufacturing process, including assembly of parts.

Materials Education

As there are a variety of teaching pedagogies related to materials education, any variety could flourish in the context of a materials collection. As the Materials Lab Curator, I intended to expand beyond what an academic materials collection could provide in physical form and space.

With the launch of the Materials Lab's new collection database and Web site, the introduction of the Advanced Materials Research Lab and gallery, the collaboration with faculty and students within the School of Architecture and other university departments, the invitations for manufacturer and design professionals workshops and lectures—all of these actions provided a greater strength in defining the materials collection as an educational resource.

To continue an on-going development of materials research and education, key ideas have to be consistent in order to sustain the future of a materials collection. These included:

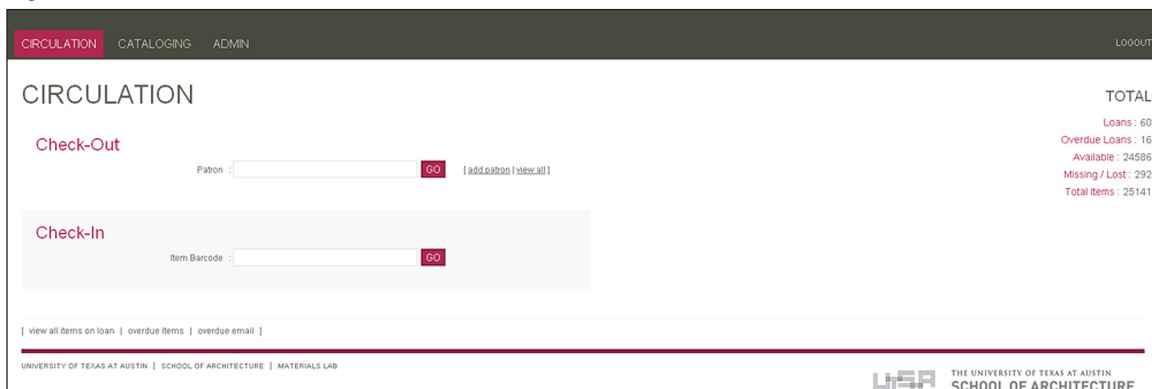
A materials collection needs to provide individuals a dependable resource for materials research and design. More importantly, the resource needs to foster individual interpretations and the self-empowerment to choose materials and make effective design decisions.

A materials collection needs to provide individuals an understanding to the full description of material qualities and capabilities in order to innovate towards new advancements in technologies, systems and design. These material qualities are acknowledged in the lexis provided by the Materials Lab collection database and Web site, and needs to be continually advanced by design educators.

A materials collection is a repository for not only outputs from the commercial manufacturing process, but also the research and design taken on part by academia and design practitioners. The resource needs to integrate practice and the design process, and incorporate outputs from all phases of material fabrication from the conceptual design phase to construction and maintenance.

The term 'laboratory' extends the notion of a facility with controlled conditions allowing for the possibility of experimentation, research and teaching. These aspects are important in describing a materials collection. The Materials Lab was explicit in the naming of its resource as a laboratory, and does not impart itself as a materials library. To be only

Figure 6. Materials Lab collection database: Circulation main menu



a collection of sources and services restricts the possibilities, future growth and sustainability of a materials collection. This is a reality that becomes increasingly apparent as designers base more and more of their discipline's knowledge in an advancing technological realm. In many ways, this is also a challenge more traditional libraries are facing as the quantity and quality of alternatives in where and how we source information grows.

In describing the pragmatic potentials of a materials collection, it is providing a working educational facility for an architecture school. A materials collection proves itself as an integral resource that provides more than singularly the hands-on-material experience to architectural discourse. Students understand materials at the most basic one-to-one scale, where simple material contact provides an unparalleled understanding in visual and perceptual sensibilities. To see, touch, smell, and hear are part of the training in becoming a well-informed individual and more directly, a successful architect and designer. To begin to discuss the visionary intentions of a materials collection begins in the choreography of the collection's composite layers of programmatic features. However, it is just as essential to allow for a necessary flexibility, overall insistence and constant energy in a materials

collection to serve as an inspirational body.

Acknowledgments

Key individuals in the design and development of the Materials Lab collection database and Web site included Zaneta Hong (former Materials Lab Curator); Christopher Rankin (Webmaster, School of Architecture); Carey Christian (Project Manager, Information Technology Services); Robert Banh (Software Developer / Analyst, Information Technology Services); Roger Le (Software Developer / Analyst, Information Technology Services); Justin Pope (Student Programmer, Information Technology Services); John Cody (Senior Information Technology Manager, Central Business Office); Eric Hepburn (Director of Information Technology, School of Architecture); and Jeff Evelyn (Assistant Dean, School of Architecture).

In addition, the collection database could not have been completed without the assistance of the Materials Lab staff, which was comprised of teaching assistants, materials researchers, and photographers—all graduate and undergraduate students from the University of Texas at Austin School of Architecture. ♪

Figure 7. Materials Lab tour: Casa Verde Builders (CVB) American Youthworks



Notes

1. University Co-op Web site, <http://www.universitycoop.com/ePOS/form=cat.html&cat=259&store=108>
2. Harvard Materials Collection Web site, <http://materials.gsd.harvard.edu/materials/matlaunch.htm>
3. Materials Lab collection database Web site, <https://soa.utexas.edu/matlab/collectiondatabase>
4. The Construction Specifications Institute Web site, <http://www.csinet.org/masterformat>
5. Information Technology Services ID services Web site, https://idmanager.its.utexas.edu/eid_self_help
6. Explore UT Web site, <http://www.utexas.edu/events/exploreut>
7. "Research Week is more than lab coats and microscopes," http://www.utexas.edu/know/2010/03/26/research_week_2010
8. "Hot Science – Cool Talks" Outreach Lecture Series Web site, <http://www.esi.utexas.edu/outreach/lectures.html>
9. University of Texas in Austin School of Architecture Career Services Web site, <http://soa.utexas.edu/careerservices>
10. Austin American Institutes of Architects Web site, <http://www.aiaaustin.org>
11. Arthouse at the Jones Center Web site. <http://www.arthousetexas.org>
12. American Youthworks Web site, <http://www.americanyouthworks.org/green-jobs-programs/casa-verde-builders>

Session 7

Metadata in Action: Leveraging Assets with Core4 and CCO

Organizer & Moderator: Jan Eklund, UC Berkeley

Abstract

This session will focus on how specific collections have implemented the Core4 and CCO data standards. Presenters will talk about the challenges involved in promoting the use of standards in collaborative projects (technical, administrative and social); address issues and considerations surrounding the preparation of data for export and dissemination via various delivery platforms; and show how the use of data standards promotes and enhances access to collections, and facilitates cross-collection and cross-disciplinary discovery. ☺

VRA Core + CCO: Tools for collaboration

Jodie L. W. Double, University of Minnesota, Twin Cities

Why use VRA Core and CCO?

Collaboration between cultural heritage repositories requires a common framework for the description of objects and collections to ensure interoperability and long-term access to content. Without a standardized framework for description and access cross searching and collaborations become difficult if not impossible. VRA Core and CCO come into the forefront as the standard of choice for many institutions or are can be cross-walked if not supported locally. The Digital Content Library (DCL) Program at the University of Minnesota is an example of a project that allowed collections to work together as opposed to building individual redundant systems. Using VRA Core and CCO as a framework for structure and description the system grew organically as collections and content types expanded. The flexibility of VRA and CCO was illustrated in practice to describe cultural heritage materials ranging from a work of art, to a book, to a building complex all within the same database structure.

At the core of our services whether digital or analogue we are and have always been in the business of cultural heritage management. Call them slide libraries, museums, archives, etc.... they all contain our cultural heritage memory in the form of originals and/or surrogates. We also no longer manage these systems alone, for the most part, and we also need to be able to share information with one another and with systems both internal and external to our organization. This means implementing standards in order to take the first step toward a share infrastructure.

The landscape of networked information and online catalogs for cultural heritage institutions or LAMS (libraries, archives and museums) changed dramatically in the past decade with the community's development and agreement upon metadata standards and practice. Prior to shared standards many collections that projected some form of digital presence could be categorized mostly as stand-alone resources of select pieces with a web gallery usually in the form of static html pages that did not interrogate a database in background. This was limited and not a true reflection of the collection holdings a common language was needed for non-book collections to communicate with each other similar to what libraries designed in the mid-late 20th century with machine readable cataloging (MARC). These much needed standards emerged in the form of Visual Resources Association Core (VRA Core), metadata object description schema (MODS), and metadata encoding and description standard (METS). Each comes with strengths and weaknesses akin to MARC but laid the groundwork for future improvements by people currently engaged in the field of information science.

This sudden and drastic change that occurred in the past decade opened up content to the world that was

normally locked away in special collections or storage vaults. Service models and outreach programs changed in response to this increase in visibility and virtual foot traffic via web hits increased. This paradigm shift brings to the surface fundamental questions related to the core mission and patron demographic within each institution and how to deal with the possible increase in customer requests to view the actual object depicted on the web. Additionally as users seek visibility of their own content digital libraries can sometimes become a digital "garbage dump" if scope and remit of the collection is not closely monitored.

So why go through all the effort of implementing standards when you could put your entire collection on Flickr? Standards allow you to re-use and recycle content and allow you to share with Flickr, or another University, or other collections around the world. Having the two fields within Flickr is not going to be sufficient when it comes to sharing with another University in most cases, then again do we really want to share and what's in it for the host collection?

We may ask ourselves, is collaboration truly possible between organizations that have traditionally practiced hoarding instead of sharing? The paradigm shift to open access, content that is shared and can be harvested by search engines such as Google, is still occurring within many memory institutions and will continue to occur depending upon funding. Ironically cultural heritage institutions have historically managed analog collections expertly and with standards internal to their own systems, so to make the shift is more of an institutional capacity and strategy level decision and less about process. When the tipping point occurs between effort and staffing is hard to predict, but after the initial growing pains we are coming to the realization that by sharing we are not losing users, but in fact gaining whole audiences they never knew existed.

The current economic state of higher education as of 2009 may have a greater impact on adoption and implementation of standards more so than collection manager preference and strategic aims. As visual resources collections are increasingly closed or incorporated into libraries due to the current financial situation the adoption rate of VRA Core may slow down or increase depending upon the sway of the staff and their background within. As several major image collections have been closed recently it is becoming apparent that this economic situation is creating an environment where even the most protected and valued collections were in jeopardy. Collections that were early adopters of online access and digitization standards can be easy prey to administrators who think that everything has been digitized so therefore there was no need for staff, when in fact most collections would quote percentages of collections complete. As always there will be change and hopefully this will be a short lived blip and things will go back to normal and collections preserved for future generations in addition to building upon the framework of sharing created by the VRA. The user has always been at the core of services for Visual Resources Collections so it is the

user that will gain from increased access through standards and sharing, not closure.

Sharing and ease of access may seem like an obvious goal to the user, what may not be apparent is the underlying structure of the systems that are never revealed to the public. The complexity of institutionally distinct systems, scholarship and description of cultural heritage, and let us not forget the politics of sharing are the friction points when organizations decide to share. These are also learning opportunities depending upon the intended outcome of the collaboration or partnership. Having a full range of expertise at the table will ensure the content is preserved for the long-term and all the voices and needs of the community are taken into account when scoping the project. Sharing means building trust and sharing also involves revealing that our catalogs are not perfect, nor are our records. What standards and sharing does reveal is the fact that our collections are rich and deep and that together they create a unified story or a work for the world to see. ☺

Session 9

Training Millennials at Work: Strategies for Training a New Generation**Abstract**

Millennials (student workers and temporary employees born between 1980 and 2000) have become increasingly important human resources in visual resources collections. As this demographic plays an increasingly more significant role in our daily operations, how do we effectively teach and train Millennials? This session focuses on strategies for educating and communicating essential aspects and concepts of the VR profession to individuals immersed in the Web 2.0 culture. Panelists will cover multiple topics and points of view, including: the hiring process and conducting meaningful interviews; metadata and cataloging practices; production, digitization and image quality control; and effective communication with Millennial employees. The session will be enhanced by examples of new tools and innovative ways to conduct outreach and motivate employees.

**Managing Millennials in the Workplace**

Elizabeth Schaub, University of Texas at Austin

At the start of each academic school year I take a moment to marvel at the fact that while I continue to grow older the students around me never seem to age. Those of us who work in the university environment are uniquely positioned to observe, serve, and work with students who represent an ever-changing demographic whose age—paradoxically—stays consistent over time. The students' age may stay the same but their collective life experiences serve to inform a distinct set of values and needs. For example, the generation we're focused on today, the Millennials, born from 1982 through 2000, is the first generation to grow up surrounded by digital media. As is the case with all generations there were significant influences during their formative years that shaped the Millennials "generational personality."¹ According to Claire Raines in a 2002 article titled "Managing Millennials," excerpted from her book *Connecting Generations: The Sourcebook*, the influential events and compelling messages that this generation has assimilated have imbued them with the following characteristics: they are confident, hopeful, goal and achievement oriented, civic minded and inclusive.² In her article Raines outlines six of the Millennials most frequent workplace related requests. First, they want their supervisor to be a leader; this is informed by how they grew up—with structure and supervision. Second, Millennials want to be assigned projects they can learn from. Third, they want to work with people who they get along with; they like being friends with their coworkers. Fourth, they like to have fun. Fifth, they seek respect. And sixth, they want flexibility from their supervisors. When faced with recruiting, training, managing and inspiring your student workers it is useful to keep in mind this generations' proclivities so that you can cultivate an environment and forge relationships that both you and your employees find satisfying and fulfilling. In this paper I'll be discussing management strategies I've utilized in the School of Architecture Visual Resources Collection (VRC) at The University of Texas at Austin—a place my Millennial staff members enjoy working.

Setting the Stage: Hiring and Training

I believe that cultivating a work environment populated with happy and productive employees begins with the interview process. Generally speaking, a successful interview is one where you as the employer have been able to provide context for the position for which you are interviewing so that the candidate, Millennial or otherwise, understands the type of work they will be expected to perform. Of course, you will be asking questions that enable you to assess whether the candidate would be a good fit for your work environment like "What things do you look for in an organization?" and "What are some things you would like to avoid in a job and why?"

Further, you want to ask questions that lead the candidate to conclude that their opinions and ideas are respected not just during the interview but if and when they begin working in your organization. For example, I ask candidates to tell me about some of the things they have done particularly well or that have led to their greatest successes in previous positions and why they feel the way they do. I also ask them about the kinds of things they feel most confident doing and what gives them the greatest satisfaction at work. Another question I ask that serves the dual purpose of getting to know the candidate as well as communicating that I, in my supervisory role, value feedback and respect their opinion is "Can you think of a problem you have encountered when the old solution didn't work and you came up with a new solution?" The interview provides an opportunity to telegraph the type of workplace you offer to your Millennial candidate so that your prospective employee leaves the interview already invested in the idea that working for you would be an opportunity providing mutual benefit.

When a new employee begins at the VRC I sit down with them and present them with a checklist that will help guide their orientation and training. This provides the structure that Millennials crave and it enables me to keep track of what has been covered. In addition to the training checklist, I create a very detailed schedule for each training week. Again, this structure helps establish my role as supervisor—or leader if you will—while providing my employee with a sense of direction in a new and unfamiliar environment. During the employee's period of acclimation I schedule training sessions with seasoned student employees. This allows staff the opportunity to bond with new employees—and to make friends—and it gives me the opportunity to show seasoned employees that I trust them to take on the important role of training new staff members. I follow up student led training sessions to ensure that all relevant points have been covered and all questions that might have arisen are answered. This presents me with an opportunity to emphasize the fact that I value new employees' feedback and I encourage them to suggest alternative ways of approaching tasks when, with their fresh set of eyes, they see a more efficient way of doing things. Further, during their training period I schedule time for new employees to review the relevant sections of our Student Training Manual available on the VRC's wiki. This reinforces the information they are absorbing during the one-on-one training sessions. The Student Training Manual also serves as a reference work that they can consult in the future as needed.

Facilitating Flexibility

During the employee's orientation I emphasize that the schedule they establish is one that I expect them to adhere to but that it is not set in stone and adjustments are perfectly acceptable; this is an opportunity to show that you are flexible—something that Millennials desire in the workplace. To this end, I use Google Calendar to manage and track employee hours. I establish a calendar for every employee,

giving them permission to manage their own calendar. Each employee can view everyone else's calendar so if they are planning to adjust their schedule they can see how a change would impact coverage in the VRC. Requests for schedule adjustments are e-mailed to me for approval. Once their request is approved the employee is expected to update their own Google Calendar accordingly.

Offering Learning Opportunities

Millennials want to be challenged and it is up to you to provide engaging work. Giving students the chance to catalog images is a golden opportunity that allows you to introduce resources that will not only be required to create catalog records but also have the potential to serve them well in their academic pursuits. New VRC employees meet with the Architecture and Planning Library's reference librarian for an overview of the library's reference collection and online resources that supplement the standard cataloging reference sources used in the VRC. The feedback I receive from employees about this orientation is always positive since invariably they learn something about resources they can call upon outside the context of the VRC. Cataloging images tends to satisfy Millennials because they are often exposed to content that they are unfamiliar with and in some cases they are working with content that has a direct bearing on their academic coursework. In addition, they often need to conduct in-depth research that serves to not only hone their skills as researchers but also provides them an opportunity to learn something new. So, while they are at work in the VRC they are expanding their breadth of knowledge, which again is a characteristic Millennials seek out in a job.

Another learning opportunity for VRC Millennial employees comes in the form of our blog called Deep Focus. I realized early on that it would become quite a chore to blog on a daily basis so I gave several staff members permission to blog so that this would be a shared responsibility among a number of staff. I make a habit of forwarding information about resources and articles of interest to my bloggers. In addition, these staff members are constantly on the look out for items of interest that they can blog about. This is an ideal arrangement since the information streams that I am culling from are not the same as the ones my students are trolling. As a result, we get a wonderful mix of content on our blog, the students feel that they are making an important contribution and that their critical analysis skills are respected because they've been charged with this responsibility.

We use a wiki to make accessible everything from our catalog manual to our staff phone list. Millennials, as we know, have grown up steeped in technology and the use of the wiki appeals to their sensibilities. Several staff members have been given permission to edit the VRC's wiki. This provides a learning opportunity if they have not yet had a chance to create and edit wiki pages and it also allows our operation a great deal of flexibility as far as documentation goes. As suggestions are made, I can ask students to create a page

on the wiki so that the entire staff can benefit. We have also used the wiki to document workflow process such as the one we follow when creating our biannual exhibits, both physical and virtual. For example, one student had been charged with this task for a number of semesters. As she was approaching graduation, I asked her to provide extensive documentation about her workflow process so that the next student charged with the task would have a model to follow. Once we established the wiki we posted the information she provided and the students who have subsequently been charged with producing exhibit materials have been able to easily update these wiki pages as our workflow has evolved.

Cultivating Collegiality

As I mentioned earlier, Millennials like to work with friends and have fun! There are a variety of ways to nurture a workplace where employees can socialize with one another without detracting from the work at hand. For example, in the VRC we have a full selection of teas, an electric kettle along

with a set of large colorful mugs and members of the staff informally take turns making tea for each other. Students have brought back tea from as far away as New Delhi and Berlin to share with their fellow staff members. The act of making and sharing tea goes a long way towards creating a sense of good will amongst staff.

We have also had a number of food-centered events where we choose an ingredient—akin to Iron Chef—and staff members are invited to bring a dish that includes the ingredient of choice. Thus far we’ve had lunches that on one occasion featured dishes using poppy seeds and on the other occasion all the dishes contained honey. This potluck approach provides an opportunity for staff to share recipes and we partake in non-work related conversation while enjoying the collective offerings. Again, this provides an avenue for Millennials to socialize in the work place often resulting in the desire to get together outside of work. For example, two staff members, who had been working together to complete a comprehensive project, proposed a VRC bowling night to

The screenshot shows the website 'Generations at Work' with a navigation menu on the left and a main content area. The main content area features a video series introduction for 'Millennials at Work' by Claire Raines and Arleen Arnsperger, 2010. Below the introduction is a list of links to various articles and resources related to Millennials at Work.

New Video Series **Millennials at Work**

← back to Articles

by Claire Raines and Arleen Arnsperger
2010

This article is an excerpt from *Millennials@Work* by Claire Raines and Arleen Arnsperger.

[Who They Are](#) | [Shaped by Their Times](#) | [Popular Technologies](#) | [Entertainment They'll Remember](#) | [Events that Shaped Their Lives](#) | [Messages that Influenced Them](#) | [It's All About Engaging Them](#) | [Rules of Engagement](#) | [Put the Titanium Rule to Work](#) | [The Work Environment in Most Organizations](#) | [The Work Environment that Engages Millennials](#) | [Millennial Strengths](#) | [Challenges for Managers](#) | [Millennial Motivators](#) | [Managers They Love to Work For](#) | [Managers Who Drive Them Crazy](#) | [Communication Styles They Respond To](#) | [Rewards](#) | [We See the World Differently](#) | [What We Have in Common](#) | [Nine Keys to Engaging Millennials](#)

Award-winning producer Tarek Chacra's new DVD series, *Generations and Work*, includes two excellent programs about Millennials—Working with Millennials and Succeeding with Younger Workers.

Who They Are

Born between 1980 and 2000, Millennials comprise nearly a quarter of the world population. They're the first generation to grow up surrounded by digital media. Two thirds of them used computers before the age of five. They are connected 24/7 to friends, parents, information and entertainment. Accustomed to being the center of attention, they have high expectations and clear goals. They are willing to work hard, and expect to have the support they need to achieve. They have older parents and were brought up in smaller families. One in four has at least one college-educated parent. Citizens of the world, they are the most racially and ethnically diverse generation in history.

Also Known As

- Generation Y
- Generation Next
- The Nintendo Generation
- The Net Generation
- The Digital Generation
- Generation O

Millennials are making their mark rapidly and in profound ways. Their use of technology are largely seen as the driving force behind the recent revolution in American political campaigning. Creating new websites and using existing ones like *YouTube*, *MySpace*, and *Facebook*, they have raised money, furthered issues and supported get-out-the-vote efforts.

They are redefining civic engagement. Youth voter registration continues to increase, and youth-driven activist organizations build grassroots movements for various social and political causes. In the 2008 U.S. presidential election, young people turned out to vote in unprecedented numbers. Millennials are recognized as playing a major role in electing the nation's first black president.

celebrate their accomplishment; staff met after work on a Friday night to enjoy each other's company over a few games of glow-in-the-dark bowling. Staff members have tentatively scheduled another bowling night to take place after one of our employees has turned in her thesis. I think this shows that our effort to create a collegial environment has been successful.

When VRC employees come to the end of their tenure with us, we have a going away get-together usually featuring something tasty. And, instead of receiving a gold watch in appreciation for their service, we present departing staff with a stuffed Flying Monkey. Our metadata librarian Robert Carter designed the logo affixed to each monkey's cape that reads: Visual Resources Collection Flying Monkey Squad. Both Robert and I have Flying Monkeys who reside at our desks. From time to time a monkey takes flight from his perch, inevitably resulting in a "light moment" enjoyed by all present regardless of generational affiliation. So, when departing staff members leave with their monkey, they have fond memories associated with him and their time in the VRC. Former employees have told me that they have enjoyed taking their monkey with them to their next job. I have to say, Flying Monkeys are a lot more economical than gold watches and much more fun!

In conclusion I'd like to emphasize that in order to effectively manage Millennials, you will need to employ a mix of strategies both new and, what we might deem, more traditional. Examples of new technologies that I suggest can assist you to manage your Millennial employees and provide them with the learning opportunities they desire include the use of Google Calendar, a wiki and a blog they can contribute to. More traditional strategies include effective face-to-face communication beginning with the interview process, a training checklist to establish structure during the training period and a student training manual that serves the dual purpose of imparting information to new employees and functions as a reference work they can consult later. Finally, cultivating a work environment that fosters collegiality is important to your Millennial employees and there are a variety of creative ways of doing this from making tea to Flying Monkeys. As supervisors, we need to remember that Millennials are asking us to lead, to challenge them, to work with friends, to have fun, to be respected and for flexibility. I think by answering this call, we can give our Millennials what they desire and along the way improve our management and leadership skills, our places of work and our own job satisfaction. ☺

Notes

1. Claire Raines Associate's official Web site, "Managing Millennials," http://www.generationsatwork.com/articles_millennials.php (accessed January 11, 2010).
2. Ibid.

Millennials at Work: Re-imagining Communication in Order to Improve Training

Jen Green, Plymouth State University

Information professionals know that the next generation of information seekers is upon us. Known by many names including Digital Natives, Generation Y, the Nintendo Generation, the Millennials, they are generally considered to be people born somewhere between the late 1970s and late 1980s. For professionals working within educational environments, Millennials are a noticeably tech-savvy, multi-tasking group of people with a need for instant feedback. Millennials tend to have high expectations of themselves and others, but they value work-life balance. Millennials thrive in environments where they can collaborate or share ideas (Alsop 2008). With the introduction of communication tools like Facebook, Twitter, Google applications, instant messaging, and more, Millennials learn and communicate quickly and with mobility. As we learn more about how Millennials expect to send and receive information, how does this translate to our supervision of Millennial students that we employ?

The answer to this question revealed itself progressively through two projects that I've approached with Millennials. The first project, a blogging initiative called "Crash and Burn" happened in collaboration with student workers in the College of Design's Digital Collections and Archives at the University of Minnesota. The second project, a Facebook group page for student workers in the Visual Resources Library at the Massachusetts College of Art and Design, was launched to help to help re-define student worker roles to better suit a digital collection.

Crash and Burn, Digital Collection and Archives, College of Design, University of Minnesota

Student workers in the Digital Collection and Archives were responsible for scanning the collection's 35mm slides before they were cataloged by the collection staff and added to the Digital Content Library database. Upon hire, students went through an extensive training program where they learned how to use a slide scanner, correct images in Photoshop, assign accession numbers, and perform general file management skills. After students were trained, they were encouraged to design flexible schedules that complimented their course loads each semester. While this helped retain students throughout their education, it meant that some students worked over weekends or in the evening, making consistent and effective communication between colleagues and supervisors a challenge.

As their primary supervisor, I managed the students' schedule and attempted to ensure they received important information about collection hours, visitors, meeting times, etc. After being slightly discouraged when students did

not respond to their institutional (University of Minnesota) email, I asked one student worker, Paul (undergraduate in Landscape Architecture), about it. Paul's response: "email is for old people." With shock and slight reluctance, I decided that regardless of how I envisioned communication should happen, it was possible that Paul was right, and I needed to better understand the shift in communication with this generation. Capitalizing on Paul's enthusiasm (and honesty), I convinced him to help envision how we might improve communication between myself and his student colleagues. Since I had just learned how to design and code Web sites in the MLIS program I was pursuing, Paul suggested that we design a student worker Web site. Paul provided examples of Web sites that he found appealing in terms of layout, design, and clarity, and together we envisioned something with an open calendar, message board, training videos, and instant messaging capabilities. I invited Paul to meet with me and the College Design's Information Technology staff to talk about his ideas. In the end, time and personnel constraints prevented us from launching such a Web site, but in the process, Paul and I learned that what students wanted could be achieved through a blog where they could post their schedules to me, trade shifts, and share tips about scanning and image editing techniques. This was quickly and easily accomplished using MoveableType, the publishing software used by the institution. Before we launched the blog, all student workers gave input on "look and feel" and necessary features.

The process of working on this project with Paul and the other students ultimately proved to be just as important as the final results. Paul's enthusiasm for his routine tasks increased because he had been included in an important process and decision. He was engaged in the project and committed to finding a solution that would work for him and the other student employees.

A Facebook Group Experiment: Visual Resources Library, Massachusetts College of Art and Design (MassArt)

MassArt's Visual Resources Library faced similar challenges to those of the University of Minnesota's Digital Collections and Archives. However, in addition to the challenges of managing communication between six student works and their varied schedules, MassArt also needed to re-invent the students' workflow. Before Fall 2008, students working in the VR library focused on maintaining the 35mm slide collection (re-filing slides, performing slide checkout, re-mounting, labeling, dusting, etc.). By Fall 2008, there was a significant drop in the number slides being checked out, and most patrons were finding the digital images they needed through the collection digital image database, MDID. Slide scanning had historically been outsourced to a local photography service, but upon my arrival in June 2008, we reassessed this practice, and decided to train the student workers to do our slide scanning "in-house." Again, we quickly discovered that institutional/personal email was not enough to keep information flowing between staff and

students. Nor, was it enough to keep students motivated as they learned to perform new tasks.

In an attempt to avoid "reinventing the wheel," by creating a collection Web site or blog, I decided to talk with our student workers about how they envisioned effective (and fun) communication happening between all of us. First responses: "everybody's on Facebook." I discovered, in fact, that all six of our student workers were on Facebook and half of them were already Facebook friends, communicating with each other more frequently there than they did in person. Concerned that the students might not want to "friend" their supervisor, I talked with each of them individually about this issue, letting them know that the communication mode was their choice. None of the students had a problem with this and they all liked the fact that they would no longer have to feel "guilty" about checking into Facebook at work. Instead of trying to fight the students' desire to use Facebook for communication and collaboration, we decided to try to capitalize on the tool in a professional setting.

Throughout this process and conversations with the students, I realized that institutional email is like sidewalks laid out throughout a college campus. The sidewalks are solid, wonderful and useful in many instances, but by looking at the paths that people create by walking across lawns and next to sidewalks we know there are faster and sometimes more enjoyable ways to get across campus. While we might not understand these shortcuts, and even find them annoying, we shouldn't ignore the message that it sends about the effectiveness of the sidewalk. By asking students to use email (a form of communication that they found to be slow and clunky), we are ignoring the paths of communication they are establishing. It doesn't mean that we should abandon the sidewalk (email), but let's not ignore the paths (Facebook) that form around it.

The results at MassArt from using Facebook to communicate were:

1. Students started sharing thoughts about their work in the image library, the artwork they produced for school, and other artwork, music, and digital media;
2. We boosted moral and peer support within the team, which helped as the students learned to perform new tasks at work;
3. We were able to better utilize our students' talents (e.g.our film students began creating Captivate videos that they shared with the Facebook group. The videos helped train their peers and share their ideas even if their work schedules did not overlap.);
4. We made a smooth transition from tasks designed for an analog collection to projects designed for a digital collection.

Conclusion

The above examples are an attempt to illustrate how re-thinking and re-designing the way you communicate with student workers doesn't have to be a time consuming,

overwhelming task. Engage your student workers in the process and ask for their help; they are often happy to take on the research and work that goes along with doing this. Students have great ideas and appreciate the professional skills they develop when they know what's happening and involved initiating improvement. If you do ask for your students' advice, make sure you listen to it. In the examples above, we were unable to accommodate every idea that the students suggested, but their ideas were taken seriously and we worked together to refine them to things that we could achieve. Because the students were invested in the process they were eager to adopt the new change, even when the change was different than what was originally imagined. Most importantly and critical working with Millennials and the generations that will follow them: keep your mind open to emerging technologies. Try everything (or as much as you can), even if you think it is silly or pointless. If you try it and it is silly or pointless, at least you will have an educated opinion about that. More importantly, your students will respect if you are knowledgeable about (or engaged with) the technology that is instrumental in how they interact with their peers. ♡

Alsop, R. (2008). *The Trophy Kids Grow Up: How the Millennial Generation is Shaking Up the Workplace*. San Francisco, Jossey-Bass.

Training Students for Digital Imaging Tasks

Alex Nichols, Michigan State University

This paper discusses processes and strategies for training students specifically for the task of digital imaging in a visual resources context (primarily scanning, copystand photography, and processing images with Photoshop), based upon my own personal experience during the last several years. The prospect of training student employees in these types of activities may immediately bring to mind the process of imparting technical skills, however, this aspect of training has not been remotely problematic in my experience thus far. Every student that has done imaging work for me has graduated with a good command of the hardware and software that we use. A few have started out with limited background or experience with the tools at hand, but none have failed to reach a level of competence within a reasonable amount of time.

All of the problems I have run into with training student workers have been non-technical in nature. For example, obsessive perfectionism: students spending huge amounts of time correcting minutiae, pouring over every pixel in search of a spec of dust, never satisfied with any tweak of the color. The results are good, but uneconomical, given the thousands of images that may need to be scanned. Another common problem is the impulse toward something like art restoration or creative improvements (e.g. the removal of unsightly cracks in the surface of a painting). Again, results are good (even sometimes impressive) in a technical or aesthetic sense, but can be seriously wrong in the sense of trying to faithfully represent a work of art in a classroom setting. Further potential pitfalls include the machine-like approach, which involves those students who precisely follows instruction to a fault, not recognizing exceptions to typical rules (e.g. carrying over a descreening process from general printed reproductions to pop art). Finally there is the difficulty of the almost-perfect, when a student spent lots of time doing good work on an image, but then makes one simple mistake that requires starting over (e.g. eliminating dust spots and fixing color, but then incorrectly cropping a portion of the image).

There are a number of useful approaches to avoiding these and other problems. Attempting to hire only those students with good potential in the first place is of course the best start, and providing comprehensive training is another good approach. However, there are other factors to consider that can have a major (though possibly indirect) impact on the success of training. For example, it is important to design workflow, procedures, and evaluation criteria that are conducive to the training process, and to maintaining good, consistent imaging results.

Starting with identifying that student with good potential, there are several basic factors to consider. It is very helpful to find a student who is already comfortable with

Photoshop, and/or exhibits general technical proficiency. The student need not be an expert, nor pass a specific checklist of skills, but if they already feel comfortable using the software, they will learn the particulars of a specific institution's operation much more quickly. At my own institution, I've found that students who have taken at least one photography class are well-suited to meeting these criteria for starting skill level. A desirable candidate also has good critical judgment, and can recognize significant and insignificant image corrections, or images that require an atypical approach. This characteristic is more difficult to assess when hiring, but I have found that students with a genuine interest in art and art history do much better at this than those who do not (e.g. an art major would tend to be preferable to non-art major in this area, independent of relative technical skills).

Having chosen a promising student workforce from among whatever options are available, the next consideration is to think about what would make a good supervisory experience; how to get the most and best out of one's employees, without expending too much of one's own time. Students should have some autonomy, being able to start with most days' work without additional specific instructions from their supervisor. They should have a good sense of what the goals are, and how they are being evaluated. If there are multiple students doing imaging work, they should all be following the same workflow, and should be achieving consistent results (e.g. if you gave the same source material to two different students, they should both come back with very similar results, and have achieved those results by a very similar process). Mistakes and errors will inevitably occur, so while it is important to avoid them in the first place, it is also important to have a system that handles them well when they do occur.

Relating to those last two points in more detail, in the last year or so, I have modified the workflow at my own institution in ways that have some significant benefits in these areas and others. The key change was to begin requiring that new student workers do all image processing work in Photoshop's Adobe Camera Raw (ACR) plug-in rather than using the usual Photoshop tools and interface—not only for digital camera images, but also for flatbed scanner and slide scanner images. This has the effect of reducing the available toolset to the minimum needed for the vast majority of the types of corrections performed in a visual resources setting. More importantly, it allows the supervisor to see every change the students make; not just the end result, but which tools were used to what extent in what combination, which helps more easily and specifically identify what they may be doing wrong, and what type of advice to give them for improvement. Even more importantly, ACR renders all changes immediately and independently reversible and adjustable (even cropping), which saves time checking and correcting student work, and demonstrating how they might improve.

Other side benefits include faster opening, saving, and closing of numerous images, the ability to work on multiple images at one time, and easy, intuitive batch

processing. The downside is the absence of some tools needed for certain types of corrections. For images that need these corrections, either I do the additional corrections myself, or have a more experienced student do them, until such time that the newer employee is doing very well within ACR, and which point they can gradually begin working on the more advanced corrections offered within Photoshop. However, ACR always remains the base image editing and evaluating point whenever possible.

The end result of this workflow change has been a shortening of the learning curve for new employees, and a significant increase in imaging productivity for both students and myself, in spite of a slight reduction of proportionate student labor hours devoted to imaging. ☺

Special Interest Group
Cataloging**Summary**

The Cataloging Special Interest Group meeting was attended by over twenty individuals. The meeting began with a presentation by Greg Reser on the Wikicatalog project (<http://wikicatalog.pbworks.com/w/page/14254855/FrontPage>). Sherman Clarke updated the group on cataloging issues, including developments with RDA. Elisa Lanzi spoke about a paper given at the recent IFLA on Cataloging Cultural Objects (CCO). The rest of the meeting was devoted to cataloging questions and concerns from the audience. ☺

Special Interest Group
Getty Vocabularies; CONA and Multilinguality: Update on the Getty Vocabularies

Organizer: Patricia Harpring, Getty Vocabulary Program
Presenters: Jonathan Ward, Robin Johnson

Abstract

This SIG will present a discussion and presentation which will focus on a variety of new projects in development in the Getty Vocabulary Program. Topics will include: the structure and implementation of the newest vocabulary, the Cultural Objects Name Authority (CONA), progress on the multilinguality of AAT with the addition of thousands of Spanish and Italian terms, extensive contributions to ULAN from the Witt Library at the Courtauld Institute of Art and the Avery Index, and the upcoming addition of five million place names into TGN, from the National Geospatial Intelligence Agency (formerly NIMA). Plus, there will be updates on individual contributions, making the Getty Vocabularies available in APIs, as well as newly published works by Patricia Harpring and Murtha Baca. ☺

Summary

Development of CONA

The Cultural Objects Name Authority™ (CONA), like the Art & Architecture Thesaurus® (AAT), the Getty Thesaurus of Geographic Names® (TGN), and the Union List of Artist Names® (ULAN), is a structured vocabulary that can be used to improve access to information about art, architecture, and material culture. It is due to be released to the contributor community in 2011/2012.

CONA contains authority records for cultural works, including architecture and movable works such as paintings, sculpture, prints, drawings, manuscripts, photographs, textiles, ceramics, furniture, other visual media such as frescoes and architectural sculpture, performance art, archaeological artifacts, and various functional objects that are from the realm of material culture and of the type collected by museums. The focus of CONA is works cataloged in scholarly literature, museum collections, visual resources collections, archives, libraries, and indexing projects with a primary emphasis on art, architecture, or archaeology. For more information, see <http://www.getty.edu/research/tools/vocabularies/cona/about.html>.

With the exception of performance art, CONA records unique physical works. However, CONA may include works that were never built or that no longer exist, for example designs for a building that was not constructed or a work that has been destroyed.

Built Works: Built works within the scope of CONA are architecture, which includes structures or parts of structures that are the result of conscious construction, are of practical use, are relatively stable and permanent, and are of a size and scale appropriate for—but not limited to—habitable buildings. Most built works in CONA are manifestations of the built environment that is typically classified as fine art, meaning it is generally considered to have aesthetic value, was designed by an architect (whether or not his or her name is known), and constructed with skilled labor.

Movable Works: The term movable works is borrowed from legal jargon, referring to tangible objects capable of being moved or conveyed from one place to another, as opposed to real estate or other buildings. It is useful to separate the two types of works—built works and movable works—into different facets in CONA because movable works typically are located in a repository, have a repository identification number, have a provenance of former locations, and other characteristics that typically differ from architecture.

The minimum fields and editorial rules of CONA are in compliance with CDWA and CCO. The minimum fields are the following: Catalog Level, Object/Work Type, Title or Name, Creator, Creation Date, Measurements, Materials and Techniques, Depicted Subject, and Current Location.

Works in CONA are identified with a unique and persistent numeric ID. In addition, given that CONA is an authority, it is important that records contain enough other minimum information to allow users of CONA to clearly

identify each work uniquely, in order to prevent users from unintentionally linking to the wrong work.

There are many fields in CONA, however through titles/names (equivalence relationships), as well as hierarchical and associative relationships, the basic structure of CONA is that of a thesaurus in compliance with ISO and NISO standards. Although it may be displayed as a list, CONA is a hierarchical database; its trees branch from a root called Top of the CONA hierarchy (Subject_ID: 700000000). There may be multiple broader contexts, making CONA polyhierarchical. In addition to the hierarchical relationships (e.g., between a print and the larger volume to which it belongs), CONA has equivalence relationships (between equivalent titles/names) and associative relationships (e.g., between a sketch and the final work). The primary top divisions of CONA are the facets Built Work and Movable Work.

Over time, CONA will grow through contributions. Among contributions currently planned are those from the Built Works Registry, a collaborative project of the Avery Architectural & Fine Arts Library, ARTstor, and the Getty Research Institute.

Multilinguality and Contributions

The Getty Vocabulary Program continues to accept, process, and publish contributions to the AAT, TGN, and ULAN. The Getty Vocabularies grow through contributions from the user community, which can be made via an online contribution form or in bulk, using a prescribed XML format (<http://www.getty.edu/research/tools/vocabularies/contribute.html>). Issues surrounding increased multilinguality in the AAT, and also in the other three Getty vocabularies, were discussed at a Multilingual Terminology Working Group meeting held at the Getty (August 2010); it was attended by an international group comprising several large contributors and implementers of the Getty Vocabularies.

For the AAT, ongoing work includes new terms from routine contributions, new terms for new media and changing technology, terms included to support various fields of CONA, writing scope notes where they were missing, and new content or revisions to colors and species of animals and plants. The AAT's increased focus on multilinguality is illustrated in the following translation projects: a complete translation of the AAT in Spanish from Centro de Documentación de Bienes Patrimoniales, Chile (June 2010); complete translation in Dutch from the Rijksbureau voor Kunsthistorische Documentatie (January 2011); a complete Chinese translation is underway by TELDAP (Taiwan E-Learning and Digital Archives Program); a German translation is being undertaken by the Institut für Museumsforschung in Berlin; the Vocabulary Program is in the process of integrating around three thousand Italian object type terms from ICCD, Rome, which were contributed several years ago. The full set of three thousand French terms from CHIN has been fully integrated. Also of interest: a global fix was made in 2009 to link the so-called "AACR flag" to AAT records that were originally

sourced using the LC authorities. This flag allows implementers to automatically link AAT terms to corresponding LC authority records or subject headings. Finally, The Getty Conservation Institute is creating the Conservation Thesaurus, which it is developing in collaboration with the conservation community. It will be integrated within the AAT, but will be optimized to support a variety of displays and functions specifically tailored to the conservation field, including searching, indexing, cataloging, and the retrieval of conservation information. Contributions for Conservation Thesaurus will be added to the AAT, and new facets will be added as necessary (e.g., for the brand names of chemicals).

For the TGN, current work includes additions of archaeological sites, World Heritage Sites, and other historical sites, focusing on Asian, Pre-Columbian, Middle Eastern, and others. Large additions from the five million records of the National Geospatial-Intelligence Agency (NGA, formerly NIMA) are being successively processed each month. Where the TGN hierarchy does not match the NGA hierarchy, additional processing by editors and via algorithm is done to locate the records in the correct hierarchical positions. Nations so far loaded or being processed are Italy, Germany, Belgium, the Netherlands, Chile, and Greece.

For ULAN, current work includes the processing of routine contributions, work was done in adding non-Western artists, modern artists (including those related to the upcoming Pacific Standard Time exhibition at the Getty Research Institute (opening October 2011, <http://www.getty.edu/pacificstandardtime>), and adding types of artists that are not currently in ULAN, such as mail artists, interior design artists, illustrators, calligraphers, etc. A new facet was added to ULAN in 2009. It contains appellations used for creators of art and cultural objects when the name of the artist is unknown, and the culture of creation is used instead of artist. Examples of "preferred names" are "unknown Etruscan" or "unknown Nigerian." The appellations comply with rules in CCO and CDWA. A contribution of 10,000 repository names from Indiana University (Eileen Fry as the principal researcher) were loaded and published. Large data sets from the Avery Index, the Witt Library, Courtauld, and from the Getty Research Institute Library and Provenance Index are being processed. Other large contributions from Grove Art Online and ARTstor are being processed.

Publication of the AAT, TGN, and ULAN

New releases of full data files for AAT, ULAN, and TGN continue to be available in June annually. Sample files and licensing information is available on this page: http://www.getty.edu/research/conducting_research/vocabularies/download.html. The files are also available via the Getty's new Web services and, as always, via the online "browser"; both of these releases are refreshed every two weeks. The Web services APIs (application programming interfaces) enable access to the most up-to-date version of the Getty vocabulary data; implementers should be aware, however, that this data

available between the annual publication is in process and will likely change. If a user has a license, their institution can access the files via Web services using the same password used to access the full data files.

Publication of Introduction to Controlled Vocabularies

Introduction to Controlled Vocabularies, by Patricia Harpring with Murtha Baca as series editor, was published in April 2010. It is a detailed "how-to" guide to building controlled vocabulary tools, cataloging and indexing cultural materials with terms and names from controlled vocabularies, and using vocabularies in search engines and databases to enhance discovery and retrieval online. Also covered are the following: What are controlled vocabularies and why are they useful? Which vocabularies exist for cataloging art and cultural objects? How should they be integrated in a cataloging system? How should they be used for indexing and for retrieval? How should an institution construct a local authority file? The links in a controlled vocabulary ensure that relationships are defined and maintained for both cataloging and retrieval, clarifying whether a rose window and a Catherine wheel are the same thing, or how pot-metal glass is related to the more general term stained glass. The book provides organizations and individuals with a practical tool for creating and implementing vocabularies as reference tools, sources of documentation, and powerful enhancements for online searching. It is being used as a text book in information science courses. It is available in hard copy and online at http://www.getty.edu/research/publications/electronic_publications/intro_controlled_vocab/index.html.

Categories for the Description of Works of Art (CDWA)

News about the CDWA standard, of which CCO is a subset: In addition to routine updates to keep the CDWA in synch with other standards, the 532 categories and subcategories of the CDWA were assigned outline-style numbers in 2009 (http://www.getty.edu/research/publications/electronic_publications/cdwa). The purpose of these numbers is to organize the categories and allow easier reference by users. As new subcategories are added over time, it is possible that the numbering may change. Note that numbers are for organizational purposes only. They do not serve as unique IDs for the subcategories. ☺

Special Interest Group VRA Digital Matchmaking

Abstract

An open and ongoing forum for brainstorming ideas about creating a digital matchmaking commons, discussing progress to date, and further advancing initiatives such as building a directory of freely accessible image collections and finding communication areas for sharing images, metadata, and associated information about such collaborative activities.



Summary

Flickr VRA Group: <http://www.flickr.com/groups/visualresources>

Presenter: Heather Seneff (Hs3@u.washington.edu), Director of Visual Resources

Brief tour on the activities of the VRA Flickr group.

Wikicatalog Project: <http://wikicatalog.pbwiki.com>

Presenter: Heather Seneff (Hs3@u.washington.edu), Director of Visual Resources

Wikicatalog is a shared cataloging project for Visual Resources professionals that provide a forum for discussing cataloging and vocabulary for a variety of types of works and sites. Contributors to Wikicatalog can upload images or provide links to images to accompany the cataloging for use in the educational environment.

LUNA Commons: <http://www.luncacommons.org>

Presenter: Nancy Harm (nancy@lunaimaging.com), Luna Imaging, INC.

Update on the progress of the site since it was first made available in late October 2008.

University of California Shared Images Service (UCSI): <http://www.cdlib.org/inside/projects/image>

Presenter: Adrian Turner (adrian.turner@ucop.edu), Data Consultant

UCSI is a program jointly managed by the California Digital Library (CDL) and the UC campuses (primarily represented by visual resources curators and other image stakeholders) to build a shareable collection of image-based materials, for instructional purposes, via ARTstor.

Project: VRA Core 4 Metadata Embedded as XMP in TIFFs and JPEGs

Presenter: Greg Reser (greser@ucsd.edu), Library Assistant

While XMP is being widely used by photographers and graphic artists, it doesn't currently contain a schema well suited to visual resource and archival collections. We have

chosen to use the VRA Core schema as a first step to expand the capabilities of XMP.

Our first goal is to create a standalone application that will take a folder of images, a folder of Core 4 records, match them, convert the data to XMP and embed it in the images. The next step will be to add XMP editing tools and manual data entry ability, essentially creating a Core 4 XMP cataloging application.

FADIS, University of Toronto's Digital Imaging System: <http://fadis.library.utoronto.ca>

Presenter: Gordon Belray (gordon.belray@utoronto.ca), Information Architect and Imaging System Manager
Showcase of the FADIS initiative.

Shared Shelf Initiative, ARTstor

Presenter: Carole Ann Fabian (caroleann.fabian@artstor.org), Planning, Outreach and Communications Officer

This initiative facilitates the sharing of hosted collections across institutions.

Open Shelf, ARTstor

Presenters: Elizabeth Meyer (elizabeth.meyer@uc.edu), Interim Department Head and Visual Resources Librarian, Maureen Burns (maburns@uci.edu), Humanities Curator

Maureen and Elizabeth will update the group about the VRA's work to date and potential partnership with ARTstor on the Open Shelf Initiative.

The Allan Kohl Showcase!

Presenter: Allan T. Kohl (allan_kohl@mcad.edu), Visual Resources Librarian

Allan Kohl will showcase a collection or two that he has been developing.

Special User Group **ARTstor**

Moderator: Carole Ann Fabian, Chief Planning, Communications, and Outreach Officer, ARTstor

Speakers: Christine Kuan, Director of Collection Development, ARTstor; Carole Ann Fabian, Chief Planning, Communications, and Outreach Officer; Stephanie Krueger, Associate Director of Library Relations, ARTstor

Summary

ARTstor (www.artstor.org) is a nonprofit organization that makes available a growing library of digital images, associated metadata, and software tools designed to enhance teaching, learning, and scholarship in the arts and associated fields. The ARTstor Digital Library now shares more than 900,000 images in the arts, architecture, humanities, and sciences from a wide range of cultures and time periods. Christine Kuan gave an update on new directions in collection development, including collaborative collection building, whether working with visual resources professionals to preserve scholar collections or collaborating with professional photographers to document historical and contemporary architecture. She highlighted recently released and signed new collections that are useful for a wide range of interdisciplinary teaching and research, including: Magnum Photos; Canyonlights; Christopher Roy: African Art and Field Photography; Erich Lessing Archives; Peabody Museum (Harvard University); Rob Linrothe: Tibetan Art and Architecture; Larry Qualls Archive: New York Gallery Exhibitions; and many others.

Carole Ann Fabian provided an overview of recent and forthcoming technology enhancements to the ARTstor Digital Library, including the recent release of Associate Images. Like the Amazon.com book recommender feature, Associate Images allows users to see what other instructor-level users are teaching alongside certain images. It is a wonderful way to share the knowledge in the ARTstor network of educational and scholarly users. Carole Ann also provided an update on the ARTstor Hosting Pilot Program which serves 140+ institutions who are hosting collections on the ARTstor platform. She also presented an overview of ARTstor's new endeavor, Shared Shelf (www.sharedshelf.org), a Web-based image management service that will offer a controlled vocabulary warehouse and tools for cataloging, digital asset management, and Web publishing. Institutions will be able to manage their institutional and faculty collections, and also determine which collections, if any, should be shared through various channels such as Flickr, Google, or ARTstor Digital Library.

Stephanie Krueger provided an update on participation, focusing on international interest in the Digital Library. As of March 2009, there are 1,129 subscribing institutions in thirty countries. The Library Relations group is actively working with many institutions as well as consortia (such as California Digital Library and CAUL/CONZUL) to increase access to the Digital Library around the world. There is considerable interest from many German institutions in the teaching and research potential of the collections, and there is growing enthusiasm from Asia, Taiwan in particular. The ARTstor Digital Library continues to be strengthened by the broad network of subscribers and contributors who support and help to inform the ongoing development of the Digital Library's content and tools.

A Q&A session followed with Fabian, Kuan, and Krueger fielding questions from the attendees. ☺

*Special Users Group***MDID**

Kevin Hegg (heggkj@jmu.edu), Andreas Knab (knab2ar@jmu.edu), Christina Updike (updikecb@jmu.edu), James Madison University

Abstract

The Madison Digital Image Database (MDID) is a freely distributed, open source web application developed at James Madison University to facilitate teaching with digital media online and in the classroom. This session will bring MDID developers, users and potential users together to share their experiences and to ask questions. Members of the MDID development team will talk about ongoing development, present a preview of the upcoming MDID 3 release, and give an update on the API development, which is supported by an IMLS grant. Following the formal presentation there will be an "Ask the Experts" session. Attendees will be able to ask questions about MDID, make suggestions for further development, or receive technical and curatorial help specific to the use of MDID at their institution. Because MDID does not generate revenue, it is not possible for James Madison University to provide in-depth technical support to other institutions. Therefore this event provides a unique venue for sharing information within the MDID community. ☺

Summary*Updates*

There are now MDID mailing list subscribers in forty-eight states.

Institutions using MDID now have access to eight shared collections with over 10,600 images:

- Art Images for College Teaching
- American Sheet Music of the early Twentieth Century
- Historic Illustrations of Art and Architecture
- John Tenniel and the American Civil War
- Madison Art Collection
- Otis Artists' Books Collection
- Battles and Leaders of the Civil War
- English Architecture

Among all the institutions using MDID, forty-three take advantage of the collections hosted at James Madison University, with an average of 3.58 connections per institution. New collections authored by Allan Kohl will soon be made available, among them "La Gazette du Bon Ton," which "provides a uniquely beautiful reflection of the elegant realm of Parisian fashion and high society from the last years of the Belle Epoque to the dawn of the Art Deco era."

The JMU MDID development team created two new communication channels; a blog for news and announcements located at <http://mdidnews.blogspot.com/>, and a Facebook group, which is linked from the blog.

MDID 3

Since the initial release of MDID 2, we have received a continuous stream of feature requests, including for example:

- Support for additional media types
- Interoperability with Flickr integration and PowerPoint export
- Slideshow presentation improvements, including predefined split screen and zoom, text slides, and online galleries
- Customizable metadata
- Work/image record distinction
- Image tagging
- Better content management tools
- Usage statistics

The total list exceeds 150 requests.

Implementing these requests in MDID 2 posed some significant development challenges. The MDID 2 core was developed in 2001 based on design decisions that no longer support the current needs; the basic architecture is difficult to extend and modify, there is no built-in support for work/image record distinctions, access controls are inflexible, there is no support for digital media formats other than images, etc. In addition, the user interface is falling behind Web 2.0 expectations; even open, publicly accessible content is hidden behind a login page, images and slideshows cannot be bookmarked or linked to, and the technology used to build the ImageViewer is no longer supported on modern operating systems.

On the other hand, a complete redesign would have many advantages. New requirements can be considered from the start, including support for different media types, flexible metadata structure and access rights, bookmarkable pages, customizable page layout and design, API support, and many more. A redesign also allows us to switch to a new development platform that is completely open source, provides cross-platform support for Windows, Linux, and MacOS, and offers significantly shorter development times.

With this, the JMU MDID development team created a new vision for MDID 3 that would allow students and faculty to manage, discover, and aggregate digital media for intuitive, flexible delivery and presentation. The vision also affirms our commitment to support the use of digital media in the JMU curriculum through ongoing MDID development and to continue to promote adoption of MDID beyond JMU.

Guiding principles for MDID 3 are the use of open source software to build it and using an open source license to share it. MDID 3 will embrace Web 2.0 and open access. The system will encourage content sharing between individuals, institutions, and the public, leveraging collective intelligence through comments, ratings, and tagging. The system will engage students by allowing them to add, create, share, and manage content.

The direct goals for MDID 3 are to implement the most commonly requested features. MDID 3 will support simpler and more powerful content discovery, simpler and more flexible cataloging, and simpler access control options. It will have ubiquitous data exchange mechanisms. MDID 3 will be fully compatible with MDID 2 remote collections, will have an easy migration path from MDID 2, and will be compatible with major operating systems.

To support new development, we set up several new communication channels using Google Code development sites. These sites offer a code repository, a development wiki, and a simple issue tracker. The two sites currently available are:

- MDID3 : <http://code.google.com/p/rooibos>
- MediaViewer: <http://code.google.com/p/mediaviewer>

The MDID 3 timeline¹ and milestones for initial feature goals—MDID 2 functionality, support for audio and video files, an enhanced discovery interface, and interoperability components—is set for evaluation and testing at JMU during spring and summer of 2009 with a migration to MDID 3 in the fall of 2009. An initial version of the MediaViewer, which will be compatible with MDID 2 to replace the current ImageViewer, is set to be ready in early summer 2009. An MDID 3 beta test is scheduled for summer and fall 2009, we are looking for institutions willing to run MDID 3 in trial mode. We expect institutions to be able to diagnose, report, and fix simple problems, and possibly have the ability to contribute to the development. The latest code will always be available to anybody through the development site.

Demonstration

A short demonstration of the discovery interface of MDID 3 was given. The discovery interface is available at <http://demo.mdid.org/> for public trial. To log in, use “demo” for both username and password². Please note that the demo site has limited functionality and content.

JMUTube is a Web application developed and deployed at James Madison University that allows JMU faculty and staff to store and deliver video and presentation. It allows creation of playlists that are easily embedded in Blackboard and other Web sites. JMUTube is built on the same technologies as MDID 3 and provides a subset of MDID 3 functionality, with its interface being focused on a specific task. Our goal is to make JMUTube available to the MDID community as an extension, an alternative user interface, to MDID 3. We will optionally design a plug-in architecture to facilitate development of specialized interfaces and fit JMUTube into this architecture.

Technical Details

MDID 3 has refined and simplified access controls that are now separate for collection and storage areas. This allows better control over delivery of different media files for the same record (high/low resolution images or high/low bandwidth videos) to different users. Collections can also be bundled together into parent collections, which allows for different access to subsets of a collection.

The technology underlying MDID 3 is based on different open source projects. The application itself is based on Django, a framework using the Python programming language. Search functionality is based on Solr. Caching is provided by memcached. Any relational database supported by Django, such as MySQL, PostgreSQL, etc. will be usable. All these technologies are cross-platform, so MDID 3 will be installable on Windows, MacOS, or Linux computers, or a combination thereof.

We are also focusing on accessibility and customizability. Our goal is to make all browser-based features usable without requiring JavaScript or a mouse. For users with JavaScript enabled, features will be easier to use and enhanced for example by drag-and-drop metaphors. All pages can be bookmarked, including search results. Regarding customizability, all layout and appearance is controlled with easily editable HTML template files, so adjusting color, header, footer, logos, etc. is straightforward.

Each page has a context-sensitive help link, with additional individual help links next to critical page elements. All links point to pages in a wiki, which also provides tooltips for the help buttons. JMU will host a global MDID Help wiki. Wiki editing permissions are still to be determined. Other institutions can host their own wiki if needed, for example for non-English speakers. Additional documentation, guides, and tutorials can be linked from relevant wiki pages.

API Development

JMU received an IMLS grant in 2006 and is now hiring to work on some or all of the following data exchange projects: ARTstor and Flickr connectors, a Blackboard building block, and a PowerPoint import/export feature.

More information will be posted on the MDID blog when the contract is awarded; the target award date is April 1, 2009. Initial test versions of the connectors are to be completed by June, with final versions available by the end of the grant in September. This schedule coincides with the general MDID 3 development schedule.

Information

The MDID 3 project team:

- Andreas Knab, Lead Software Developer, Center for Instructional Technology (CIT)
- Kevin Hegg, Assistant Director of Systems, Research and Development, CIT
- Christina Updike, Visual Resources Specialist, School of Art and Art History
- Grover Saunders, Web Media Developer, CIT
- Mary Ann Chappell, Educational Technologies Librarian
- Sarah Cheverton, Director, CIT
- Sandy Maxfield, Associate Dean, Libraries and Educational Technologies

For support, please consider the following options:

- MDID wiki at <http://mdid.org>
- MDID users list at <http://listserv.jmu.edu/archives/mdidusers-l.html>
- MDID project on SourceForge at <http://sourceforge.net/projects/mdid>
- Email: mdid@jmu.edu

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Notes

1. Since the presentation was given in March 2009, the schedule has shifted into 2010.
2. A username and password are no longer required.

Special Users Group
IRIS**Abstract**

The 2008 version of IRIS (Image Resource Information System) will be demonstrated and discussed. This “final” version of the FileMaker application implements the VRA Core v.4.0 and CCO and includes an XML export. IRIS, begun in 1997 as a cooperative venture of seven institutions, now has twenty-five member institutions. Anyone is welcome to attend this meeting; you do not need to be an IRIS user to learn from or contribute to the discussion. ☺

Summary

Meeting was led by Julie Doring, new IRIS chairperson.

Financial update: IRIS treasurer has collected \$2700. of the total \$12,000. that was invoiced for 2008/2009 IRIS Collaborative dues.

IRIS listserv status: IRIS listserv is still being maintained by Norine Duncan at Brown U. and remains currently the best vehicle for group discussion. IRIS-L@listserv.brown.edu

As several of the meeting's attendees were pressed for time to catch their flights, it was suggested and agreed that the following agenda items would best be postponed for discussion later via the listserv (with follow-up at a probable summer meeting):

- Summer meeting: location, date, topics, format.
- Cultures/periods/styles issues, such as suggestion to combine some of these into one field. This could be customized per institution.
- MDID export issues/problems, such as issue with semi-colons.
- Shared cataloging
- Standardized ARTstor export
- New IRIS Web site. Julie plans to redo the IRIS Web site and welcomes ideas/suggestions.
- Suggestions for improved IRIS handouts/instructions/tutorials. Julie is planning to redo these and welcomes suggestions.

Suggestion was made that an IRIS blog might be a better vehicle than the IRIS Web site and might prove easier to maintain. Kathy Brown said she could add a link in IRIS to the blog. A wiki also was suggested, along with a suggestion to look at the MDID wiki as a good example.

Kathy Brown reported on IRIS v.2008 status and installation progress:

- IRIS v.2008 is ready. Bard and Northeastern served as the first guinea pigs for v.2008, installations going pretty well at both places. Duke, Wheaton, and Roger Williams have also installed v.2008. Some institutions have gone directly from v.2005 to v.2008.
- There is an XML export for IRIS but she doesn't know of anyone using it. IRIS institutions are exporting to MDID, ContentDM, and ARTstor. She can work with us on a standardized export for ARTstor if there is interest.
- Kathy reviewed her meeting handouts concerning IRIS v.2008 features. She has since attached these to an IRIS listserv posting dated 3/25/2009, with additional comments. As the handouts are fairly lengthy, with coverage of numerous topics, they will not be discussed here in the meeting minutes, but may be accessed via the IRIS listserv or requested from Kathy.
- Kathy reported on FileMaker Pro v.10, most recent release: Version includes many new features and the user can initiate more automatic processes. User interface/appearance is greatly changed, such as new placement of

the status area. Demonstration videos can be accessed via the FileMaker Web site.

- Kathy briefly discussed the complexities involved in importing vendor data, with an overview of the possible steps.
- There was not enough time for Kathy to show the IRIS export file and go over the handout. She suggested taking a look at the table occurrences and entity relationships, and offered her assistance to anyone requesting help. ♡

New features of IRIS2008

- Main Menu / Authorities layout: added more buttons to other files, new tables copied Maximize user setting from Install layout for convenience at login too.
New tables: Tracking, WorkType Value List, Help Tool Tips

- H - Addition of Help Tool Tips - H buttons (like M for Maximize), see Help layout user definable, first 100 IDs saved for system use

IRIS2008

Images Works Authorities Order Agents Rel. VRMS Publications List Vendors Batch Rec.

Order Record IRIS2008 Brown University Art Slide Library

Order No. 4

Print Worksheet: PUBL VENDOR Reserve # Images

Publication ID 253 P Print Acc.Labels Yes No Log Yes

Ref_Name_Type book Receipt Date 10/27/1989

Display Citation Kleiner, Diana E.E. Monu

VENDORS

Vendor ID P Vendor Name

Vendor Set No.

Vendor Set Title

Help on Order layout

For Batch Order, Pub_ID & Vendor_ID are blank. Each Image will have ID assigned. Use + to Add 1 more Image record after initial Image Records are reserved.

OK

RELATED IMAGES

| Volume Info | Page | Figure | Plate | Catalog No. | Vendor Code | Course No. | Image No. | Asset Type | Export D |
|-------------|------|--------|-------|-------------|-------------|------------|-----------|------------|----------|
| | | | Va | | | | 215015 | slide | X |
| | | | VIV | | | | 215016 | slide | |

- remove Publications Pub_Type - just use new field Ref_Name_Type and delete other old fields. Keeping old imported fields that were used for lookup of IDs in IRIS2005 to assist in any other future authority imports, e.g. sharing authorities or receiving vendor data.

ORDERS:

- can Reserve addl. Images by a quantity, or by 1 with + next to Related Images portal

- added additional fields, notes to far right if Pub_ID or Vendor_ID has been edited once Images exist added Copyright field update and if blank.

- Vendor IDs added to Image Assets table for when an Asset differs from the Image.

- Names_IDs added to **Vendor** table as Rights_ID (v2006), and in v2008 added Build of Contact_Information in Names records from data in the Vendor record.

temp tiag

Names_ID 1000 Moira Dryer

(for Rights Holder)

Contact Info: (e.g. Address) Contact information: Providence,RI,USA, 02903

B Build from Vendor info

Use of Names_ID as Rights ID in Images and Works, as well as Work_Texts as Author_ID too.

Added more tabbed layouts

- Images & Works, Names, Region, Geography, Subject, Cul/Periods authority layouts
- added Related tables to more authority tables so it's easier to see if ok to delete an authority or which records should perhaps be cleaned up first. E.g. Subjects – those with a count for Related tab.

Geography tabs:

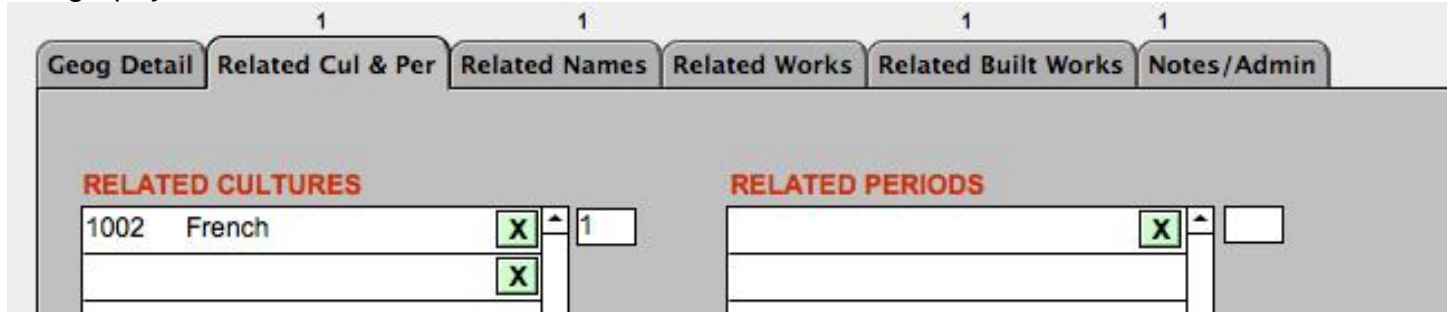


Image tabs:

(custom screen from Northeastern w/custom Digital Filename field)

NOTE: Track buttons for graphic and Image record – more on this later in handout

IRIS2008
Northeastern University Slide Library

Authorities Orders Works Publications Vendors Rel. VRMS **List** Print List Label Format

Image Record

Image No. Images Slides Digitals Photos Other All Assets
 Order No. Image SET Order Counts:
 Order Type Refresh (Go to Image Set by Order)

RELATED ASSETS

| Asset Type | Asset Format | Asset ID | Label Image No. | Digital Filename | Label Code | Image Call Nos. |
|------------|-------------------|----------|-----------------|------------------|------------|-----------------|
| slide | 35mm transparency | 1 | #200062 | | X | |
| | | | | | X | |

RELATED WORKS

Work No. Arena Chapel; Chapel; Renaissance; Painter: Giotto di Bondone (Italian, 1266-1337). Repository: Arena Chapel (Padua, Italy).
 R&B: PTG
 GIOTTO

TRACK (graphic) Digital File Name_Export Artist Approved: View All Images for this Work No. Old Acc. No. temp flag

Publication & Vendor View Agents Descriptions Admin & Notes Labels Subjects

PUBLICATIONS

Pub ID Source Abbreviation
 Ref Name Type Display Citation
 Volume Info
 Article Authors
 Article Title
 Page No. Plate No.
 Figure No. Cat. No.

VENDORS

Vendor ID Vendor Name Names_ID:
 Vendor Code
 Copyright (C)
 Rights Holder ID
 Rights Notes
 Rights Type AVRN
 Course No. Instructor
 Approved
 Ready to Export Yes No
 Export Date
 Export AVRN

Source Source Abbreviation Language Source Detail Collections Date

Work tabs:

The screenshot shows the IRIS2008 interface for a 'Work Record Summary'. At the top, there are navigation tabs: Authorities, Orders, Images, Image Views, List, Web Resources, Rel. VRMS, List: Display, Publications, and Wild Search. The main header includes 'Work No. 100000', 'Record Type work', and 'Title Arena Chapel'. A search box contains 'Arena Chapel'. To the right, there are 'RELATED WORKS' and 'RELATED IMAGES' counts, both set to 1. Below the search, there's a 'WORK SUMMARY DISPLAY' section with a 'Label Type' dropdown (Artist selected) and a 'Call No.' field (R&B: PTG). The summary text reads: 'Arena Chapel; Chapel; Renaissance; Painter: Giotto di Bondone (Italian, 1266--1337). Repository: Arena Chapel (Padua, Italy)'. Below this is a 'Work Subject Display' field with 'Arena Chapel (Padua, Italy)'. A 'TRACK' section follows with tabs for WorkTypes, Titles, Locations, Cultures/Agents, Periods/Dates, Measures, Mat./Tech., Texts, Subjects, Rel. Works, Dup. Works, Descriptions, and Admin. At the bottom, there are two tables: 'WORK TYPES' and 'CLASSES'. The 'WORK TYPES' table has columns for ID, Work Type, use plural, Source Abbrev., and Work Type Context. The 'CLASSES' table has columns for ID and Class.

Other CHANGED or ADDED FEATURES in 2008:

- Addition of related Names table for Country.
- Addition of related Names & Notes tables for Subject (Topics) and WorkType.
- For WorkType also added SubType_ID, looked up from Subject if a Subject record plural.
- And in WorkTypes, additional qualifier of "plural".
- Work_Agents default to Role value
- Image Agents layout now has Culture field and CCO display field
- Duplicate Work script – clears Cataloger’s Notes
- Built Work calculated ID and Level fields – button/script to reset & visible on Admin tab now
- More support of Geog_Levels in display terms for Country & Region.
- ReAssign scripts for duplicated records added for Cul_Periods & Geog (have Pubs & Names) and supports reciprocals now too.
- better build for Names Natural Order Name for Corporate records with commas
- IRIS_Export file – at login, set a filepath variable for scripts to use (distributed w/2006)
- Image_Graphics – auto-build of records when Images are created for calculated filepaths

WILD SEARCH – searches across tables at same time:

- extension of Wild Search into more tables: WorkType (Y), Country (O) & Region (R)
- can omit tables from Wild Search with new option buttons

The screenshot shows the IRIS2008 'Wild Search in Authorities' interface. At the top, there are navigation tabs: Authorities, Orders, Image Subj., Work Subj., and Found_Topics. The main header includes 'IRIS2008 Northeastern University Slide Library'. Below the header, there's a search area with 'Enter Search String:' and buttons for 'Find New Search' and 'Add to Search'. A 'Usage Note' explains the search process. To the right, there's a 'Tables to Omit from search:' section with checkboxes for categories like B Built Works, C Cultures and Periods, G Geography, M Materials, N Names and Repositories, O Country, P Publications, Q Techniques, R Regions, T Topics (currently Subjects), W Work Titles, and Y Work Types. Below this is a 'Select Type of Topic to Filter the display of All found results:' section with radio buttons for B, C, G, M, N, O, P, Q, R, T, W, Y. At the bottom, there's a table header with columns: Code, ID, Term / Preferred Display, Type, Source, temp_flag, and refid.

- All Wild Search tables are supported for Work or Image Subject assignment as a "Topics"
- on Work and Image Subjects layouts, new Search List window red buttons for all Topic Authorities

IRIS2008

[Orders](#) [Image Subj.](#) [Authorities](#) [Rel. VRMS](#) [Summary](#) [List](#) [Web Resources](#) [M](#)
[Wild Search](#) [Publications](#)

Work Subjects

IRIS2008
Brown University Art Slide Library

Work No. Record Type Title

RELATED WORKS
RELATED IMAGES

[Search](#) [Title](#) [Agents](#) [Location](#) [Date/Period](#) [Mat./Tech.](#) [Measures](#) [Texts](#) [Subjects](#) [Description](#) [Notes](#)

SUBJECTS

| ID | Subject Term (Display) | Type | Source | refid | |
|---------|--|------------------|------------------|-----------|---|
| T 11587 | ID Stars (Celestial bodies) | | Brown | | X |
| T 12051 | ID Allegory | Concept Topic | AAT | | X |
| T 18890 | ID Imaginary landscapes | | Grove Art Online | | X |
| C 1000 | ID Native American | descriptiveTopic | AAT | | X |
| G 1000 | ID Athens (Greece) | inhabited place | TGN | 7001393 | X |
| M 1000 | ID oil on canvas | descriptiveTopic | Brown | | X |
| N 1000 | ID Dryer, Moira | personalName | | | X |
| O 100 | ID Haiti | geographicPlace | GNIS | | X |
| P 1000 | ID Artforum | otherName | | | X |
| Q 100 | ID painting (image-making) | descriptiveTopic | AAT | 300054216 | X |
| R 1000 | ID Attica, Central Greece and Euboea (Greece) | department | TGN | | X |
| W 10002 | ID Exposición Internacional de Barcelona (1929-1930) | workTopic | | | X |

Search: [Topics](#) [Names](#) [Work Types](#) [Geography](#) [Regions](#) [Country](#) [Cul & Period](#) [Materials](#) [Techniques](#) [Publications](#) [Works](#) [Built Works](#)

ID

B Built Works
 C Cultures and Periods
 G Geography
 M Materials
 N Names and Repositories
 O Country
 P Publications
 Q Techniques
 R Regions
 T Topics (currently Subjects)
 W Work Titles

Subject ID to Paste above

Qualifier=plural form from Subjects - use for Subject Display perhaps reuse cSubject_Term_Message

Search List Windows for adding Topics from Geography table:

IRIS2008

[Orders](#) [Image Subj.](#) [Authorities](#) [Rel. VRMS](#) [Summary](#) [List](#) [Web Resources](#) [M](#)
[Wild Search](#) [Publications](#)

Work Subjects

IRIS2008
Brown University Art Slide Library

Work No. Record Type Title

RELATED WORKS
RELATED IMAGES

[Search](#) [Title](#) [Agents](#) [Location](#) [Date/Period](#) [Mat./Tech.](#) [Measures](#) [Texts](#) [Subjects](#) [Description](#) [Notes](#)

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| T 18890 | ID Imaginary landscapes | | Grove Art Online | | X |
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| G 1000 | ID Athens (Greece) | inhabited place | TGN | 7001393 | X |
| M 1000 | ID oil on canvas | descriptiveTopic | Brown | | X |
| N 1000 | ID Dryer, Moira | personalName | | | X |
| O 100 | ID Haiti | geographicPlace | GNIS | | X |
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| Q 100 | ID painting (image-making) | descriptiveTopic | AAT | 300054216 | X |
| R 1000 | ID Attica, Central Greece and Euboea (Greece) | department | TGN | | X |
| W 10002 | ID Exposición Internacional de Barcelona (1929-1930) | workTopic | | | X |

Search: [Topics](#) [Names](#) [Work Types](#) [Geography](#) [Regions](#) [Country](#) [Cul & Period](#) [Materials](#) [Techniques](#) [Publications](#) [Works](#) [Built Works](#)

ID

B Built Works
 C Cultures and Periods
 G Geography
 M Materials
 N Names and Repositories
 O Country
 P Publications
 Q Techniques
 R Regions
 T Topics (currently Subjects)
 W Work Titles

Subject ID to Paste above

Qualifier=plural form from Subjects - use for Subject Display perhaps reuse cSubject_Term_Message

Geography Topic List Window

[Authorities](#) [Regions](#) [Country](#) [Record](#) [CLOSE](#)

List of Geography

| Geographic Place | ID | Region Hierarchy | Country |
|--------------------|------|-------------------------------|---------|
| + Paris | 1060 | Ville-de-Paris, Ile-de-France | 82 |
| + Iberville Parish | 2944 | Louisiana | 223 |
| + S JAMES PARISH | 3288 | Louisiana | 112 |
| + Saint Charles | 4915 | Louisiana | 223 |

MIGRATION TOOLS for 2006:

- Pre-Install tool for assigning Subject records to existing Authorities in, will help begin the migration of Topics while still using IRIS2006. Assignments for staying in Subjects (Topics) or assigning to a Geog, Region, Country, Names, or WorkType authority record, but to use with v2006, will need to build a couple new fields, add a File Reference, some scripts and buttons.
- The new fields in Subjects, temp_Table_Code & ID will hold migration data.
- Migrating Subject records to OTHER authorities or ReAssigning to other Authority IDs is still a To Do item.

The screenshot shows the IRIS2008 interface for a 'Subject Record'. At the top, there are navigation buttons: 'Work Subj.', 'Image Subj.', 'Authorities', 'Subtypes', 'Work Types', 'List', 'Web Resources', 'Wild Search', and 'Publications'. The main title is 'Subject Record' and the browser title is 'IRIS2008 Brown University Art Slide Library'. The record ID is '14199'. Below the ID, there is a table with columns: 'Topic Term (Name)', 'Qualifier', 'Language', 'Source', 'Source Abbreviation', 'Source Detail', and 'Date'. The first row shows 'Models (Representations)', 'preferred', '25', and 'AAT'. Below this is a 'Notes/Admin' section with a 'Topic Migration' tab. It contains a search string 'Models' and a 'temp Table_Code & ID' field with the value '1034'. At the bottom, there is another table with columns: 'WType_ID', 'WorkType', and 'WT_Qualifier'. The rows are: '1034 temp Models (Representations) plural', '3842 temp Mola preferred', '1383 temp Mold preferred', and '1383 temp Molds plural'.

RECORD TRACKING:

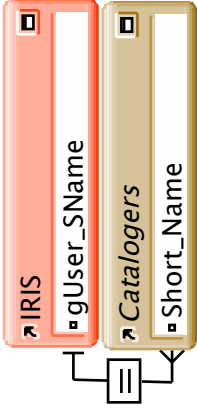
A table for tracking user selected occurrences of a record(s). The automatic modify date & user fields are not user controllable. New red TRACK (or T) buttons will be in lower left corner of layouts. Optional Note entry is available and tracking entries for Sets of records. A Modifier key will suppress the Note window (e.g. Option, Alt or Cmd).

The screenshot shows a 'Record Tracking entry' dialog box. It has a title bar 'Record Tracking entry'. The main text says 'Enter an optional Note for Current record.' followed by '[note for Set entered in next window]'. Below this is a text input field labeled 'Tracking Note for Current record:'. At the bottom, there are three buttons: 'Cancel', 'SET', and 'Current'.

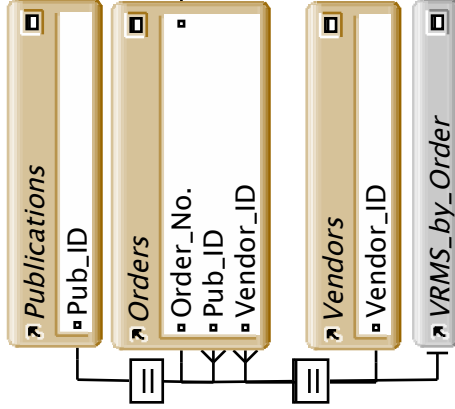
NOTE: The new fields that were added for AVRN (Sahara) support for MIT & Brown in 2006 were left in 2008. They can either be used or ignored. The install document, lists the fields.

IRIS 2008

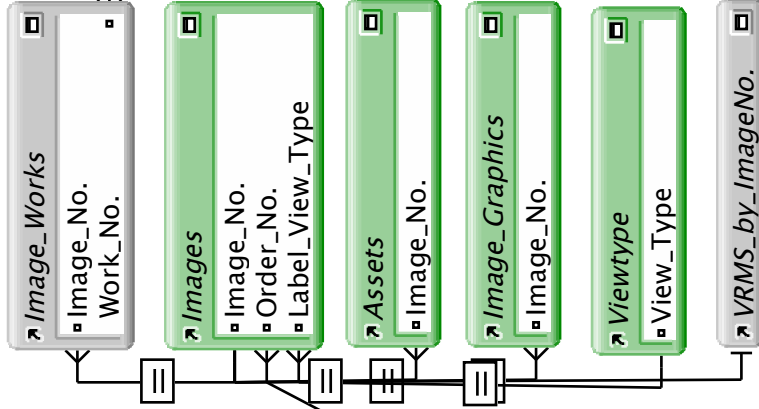
IRIS2008 Tables:
 IRIS (global, system values)
 IRIS_History
 Period & Culture Value Lists
 Found_Topics (Wild Search)
 Help_Tool_Tips
 Record_Tracking
 Labels (own file):
 Print_Labels (for Partial Sheets)
 Card_Labels (for Guide Cards)



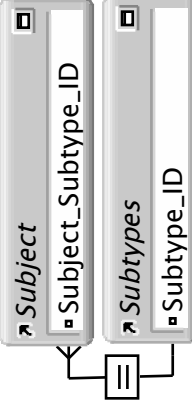
SOURCES Tables (6):
 Orders
 Publications
 Catalogers
 Order_Agents
 Vendors
 Courses



IMAGES Tables (9):
 Images
 Image_Agents
 Image_Assets
 Asset_Formats
 Image_Descriptions (optional)
 Image_Collections (optional)
 Image_Work_Links
 Image_Courses
 ViewType

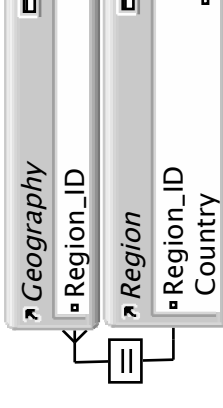


SUBJECTS for Images and Works are in same table.
 Will become Topics.
 In 2008, Topic_Names & Notes created. And WorkType now has a Subject_Subtype_ID



Names are referenced from:
 Works & Images as Agents
 Works & Images as Rights_ID
 Work_Locations as Repository_ID
 Work_Texts as Author_ID
 Vendor as Rights_ID

Culture_Periods are referenced from:
 Works, Geography, Region, Names



WORK Tables:
 Works
 Work_Image_Subjects
 Work_xx (17)
 Didactic
 Reciprocal_Works_LIST
 Reciprocal_Names_LIST
 Country, Names
 Names
 Names_xx (9)
 Geography
 Geography_xx (4)
 Period (merged with Cultures)
 Period_xx (4)
 Culture_Periods
 CulPer_xx (4)
 Region
 Region_xx (3)
 Subject
 Subtype
 Class
 WorkType, Names, Notes
 Materials
 Techniques
 Roles
 Topic_Names, Notes (Subject)

COUNTRY is referenced:
 Geography
 Region
 Culture_Periods
 Names
 Works (not used)



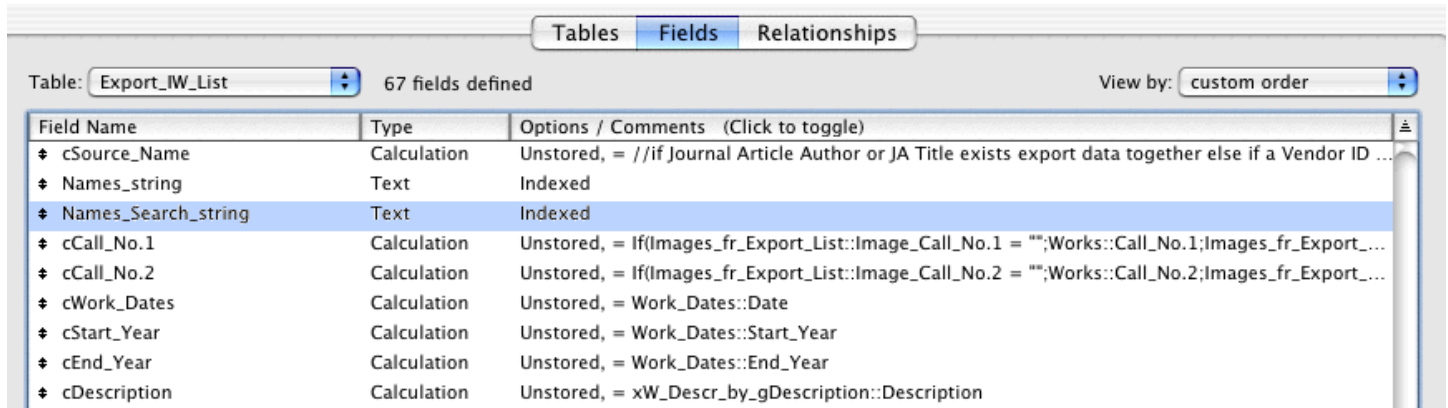
Documentation Notes: Only the primary relationship Table Occurrences (TO) are represented in this graph. Many other TOs exist in the IRIS System of files. In particular, all Source fields relate back to the Publications table. Additional TOs exist for filtering tables in portals.

IRIS_Export file notes:

The IRIS_Export file was distributed in the Fall of 2007 with IRIS2006. The plan for the file is the same as IRIS2005, that is a copy of IRIS with additional tables, fields, layouts and scripts. An export will begin by Finding a set of records in Images. An export script will then run which will export these Image & Work numbers into an Export_IW_Table for further manipulation. This temporary table also has calculation fields and “holding” text fields. These holding fields will be populated when sub-scripts run. A distributed set of fields will be exported, to a file in the **Export folder expected to be setup on the user’s desktop**.

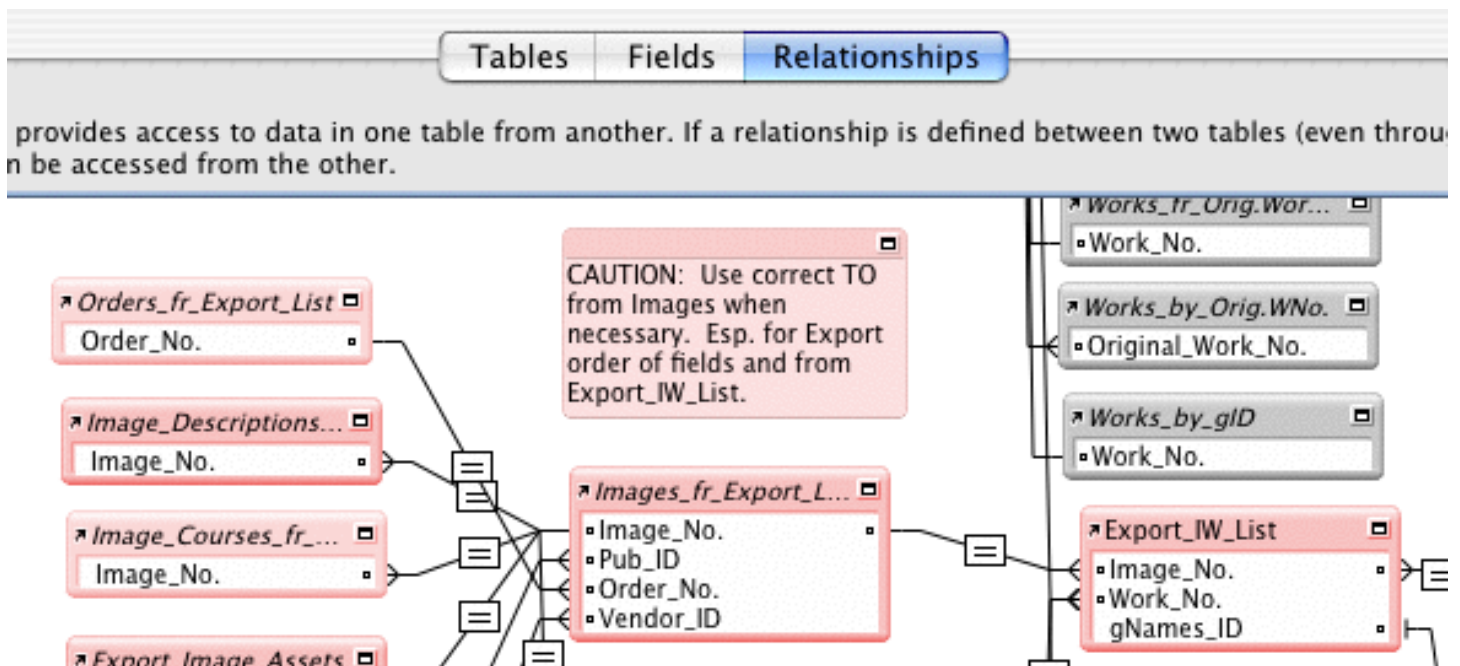
Additionally, a script to export a MDID set of fields is distributed as well. Therefore the export process can have additional fields, scripts and the export order of fields edited.

Here is a partial screen shot from File:Define Database:



| Field Name | Type | Options / Comments (Click to toggle) |
|-----------------------|-------------|---|
| ↕ cSource_Name | Calculation | Unstored, = //if Journal Article Author or JA Title exists export data together else if a Vendor ID ... |
| ↕ Names_string | Text | Indexed |
| ↕ Names_Search_string | Text | Indexed |
| ↕ cCall_No.1 | Calculation | Unstored, = If(Images_fr_Export_List::Image_Call_No.1 = "";Works::Call_No.1;Images_fr_Export_... |
| ↕ cCall_No.2 | Calculation | Unstored, = If(Images_fr_Export_List::Image_Call_No.2 = "";Works::Call_No.2;Images_fr_Export_... |
| ↕ cWork_Dates | Calculation | Unstored, = Work_Dates::Date |
| ↕ cStart_Year | Calculation | Unstored, = Work_Dates::Start_Year |
| ↕ cEnd_Year | Calculation | Unstored, = Work_Dates::End_Year |
| ↕ cDescription | Calculation | Unstored, = xW_Descr_by_gDescription::Description |

When editing the export order of fields in the script Export steps, it is important to select the correct Table Occurrence (TO) fields. The Image side is a special set of TOs from the Export_IW_Table and are located near the bottom of the graph and are shaded red with a Note.

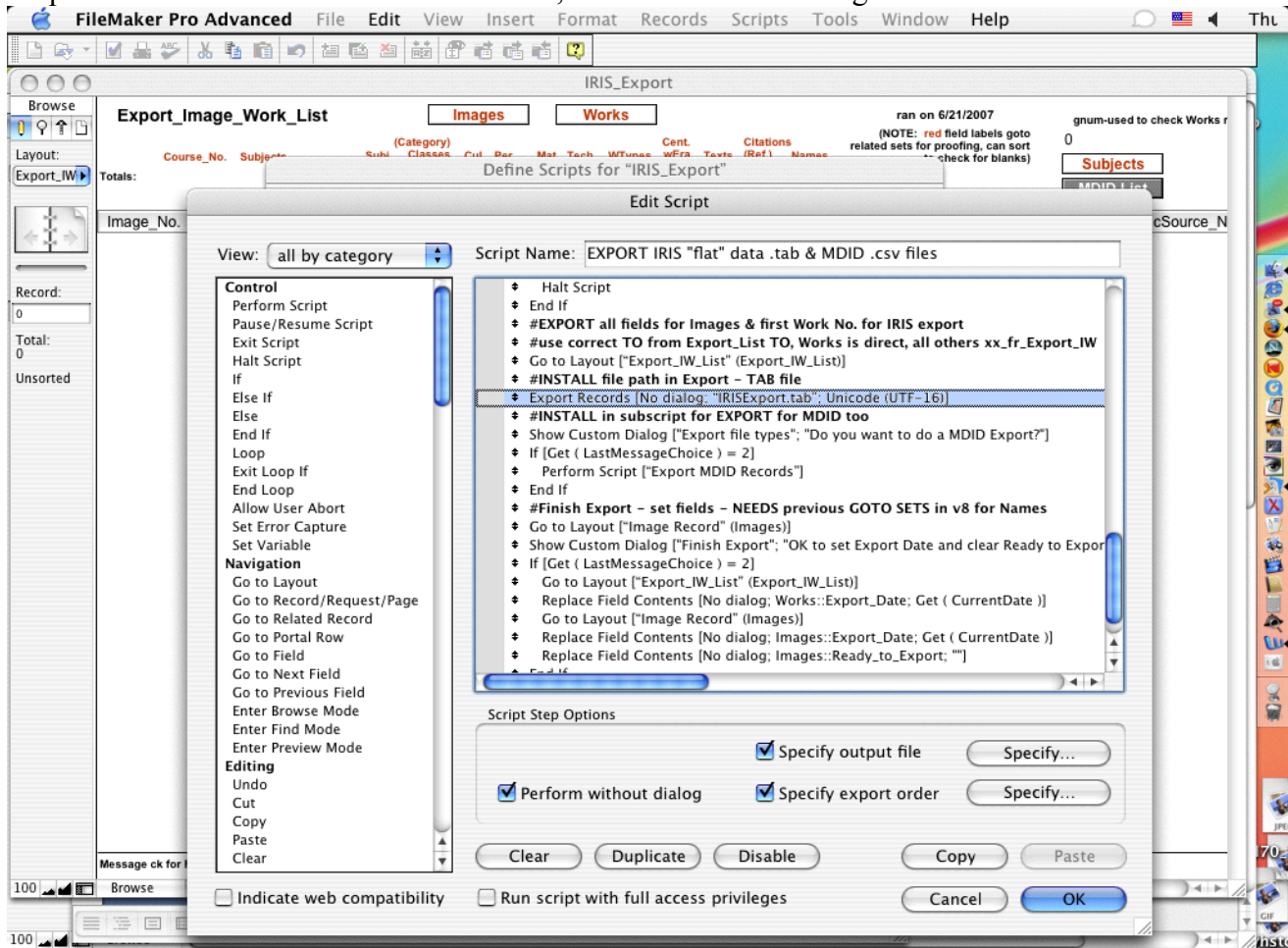


When logging in, the desktop path is displayed and used if “Local” is selected when running the script.

FilePath (gtext):

[Reset FilePath](#) (for user's desktop Export Folder, this info will be passed to the Export script or it can be edited above too)

In earlier export files, all Import and Export steps within the scripts may need to be “re-pointed” to the user’s desktop or specific Export folder location. The new IRIS_Export file now calculates the user’s desktop path and will be used unless otherwise specified. If “hard-coding” the script, it will need to be edited by selecting the respective step (Import or Export) and select the first Specify button, Specify output file. This not only sets the filepath but the filename and format as well, similar to a Save dialog.



The 2nd specify button selects the fields and their order, again, it’s important to select the correct TO.



Visual Resources Association Bulletin

Mission Statement

The Mission of the *Visual Resources Association Bulletin* is to serve the membership of the Visual Resources Association by providing a professional forum for the discussion and dissemination of ideas and information directly relating to visual resources and image management.

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1. Contributions to the *VRA Bulletin* should conform to the journal's mission statement.
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1. News items and articles should be sent to the editor: Mark Pompelia, *VRA Bulletin* Editor, Fleet Library, Rhode Island School of Design, 2 College St, Providence, Rhode Island 02903-2785; ph: 401-709-5935, fax: 401-709-5932, e-mail: mpompeli@risd.edu.
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