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***When all You've Got's the "Real Thing":
Museums and Authenticity in the Networked World***

A Paper for the Annual Meeting of the Documentation Committee of the International Council of Museums (ICOM / CIDOC), Nuremberg, September 1997.

We probably all remember it – that famous advertising campaign for Coca Cola that ends with the tag line, that gave me the title of my talk today “It’s the Real Thing”. This is a phrase that has come to be a part of contemporary culture, giving titles to Dorris Lessing and Tom Stoppard¹ among others. Its assertion of reality over appearance has given me pause as I looked at the question of museums and authenticity. Coke’s “Real Thing” campaign was a direct response to the to the challenge of “The Pepsi Generation” – an exercise in positioning a new product as an alternative to an established and institutionalized nineteenth century beverage. It seems that our current concern with “authenticity” and “quality” arises from a similar challenge: museums are deluged with an onslaught of information from an incredible number of sources, and forced into an awareness that we are no longer the sole interpreters of our collections. At the same time as we are being challenged to incorporate other voices and other experiences into our interpretations of history and culture, and have begun to rethink our traditional interpretive strategies to be more inclusive.

This crisis is coming to a head in a new digital landscape, where the traditional roles of author, editor, publisher, distributor and consumer of information have dramatically altered. When authors are creators and anyone can be a publisher, what is the place and role of cultural heritage institutions? It is true that, on the net, as the (in-)famous New Yorker cartoon has it “nobody knows you are a dog”. Well, nobody knows that you are a museum, either.

Architecture and Authenticity

In networked space, we are without our traditional visual and spatial vocabulary of communication. We are without the semiotics of a century of museological symbols that have enabled us, in our public buildings and spaces, to create the aura of authenticity and rarification that we’ve cultivated to communicate the uniqueness of each of our artifacts, and the seriousness of our educational missions. Rightly, we’ve been criticized for this approach, and the redesign of our spaces has become more open and welcoming.² But, no doubt partly because our tradition as exhibiting institutions has shaped our sense of the intellectual categorization of the objects that we care for and interpret, many museums have modeled their networked spaces on their physical spaces.

¹ Tom Stoppard, *The Real Thing*, 1984 and Dorris Lessing, *The Real Thing, Stories and Sketches*, HarperCollins, 1992

² See Eilean Hooper-Greenhill, *Museums and the Shaping of Knowledge*, London and New York: Routledge, 1992, p. 202 for a discussion of the transformation of museum lobbies from resembling prisons to resembling hotel lobbies, in a chapter entitled “A useful past for the present”.

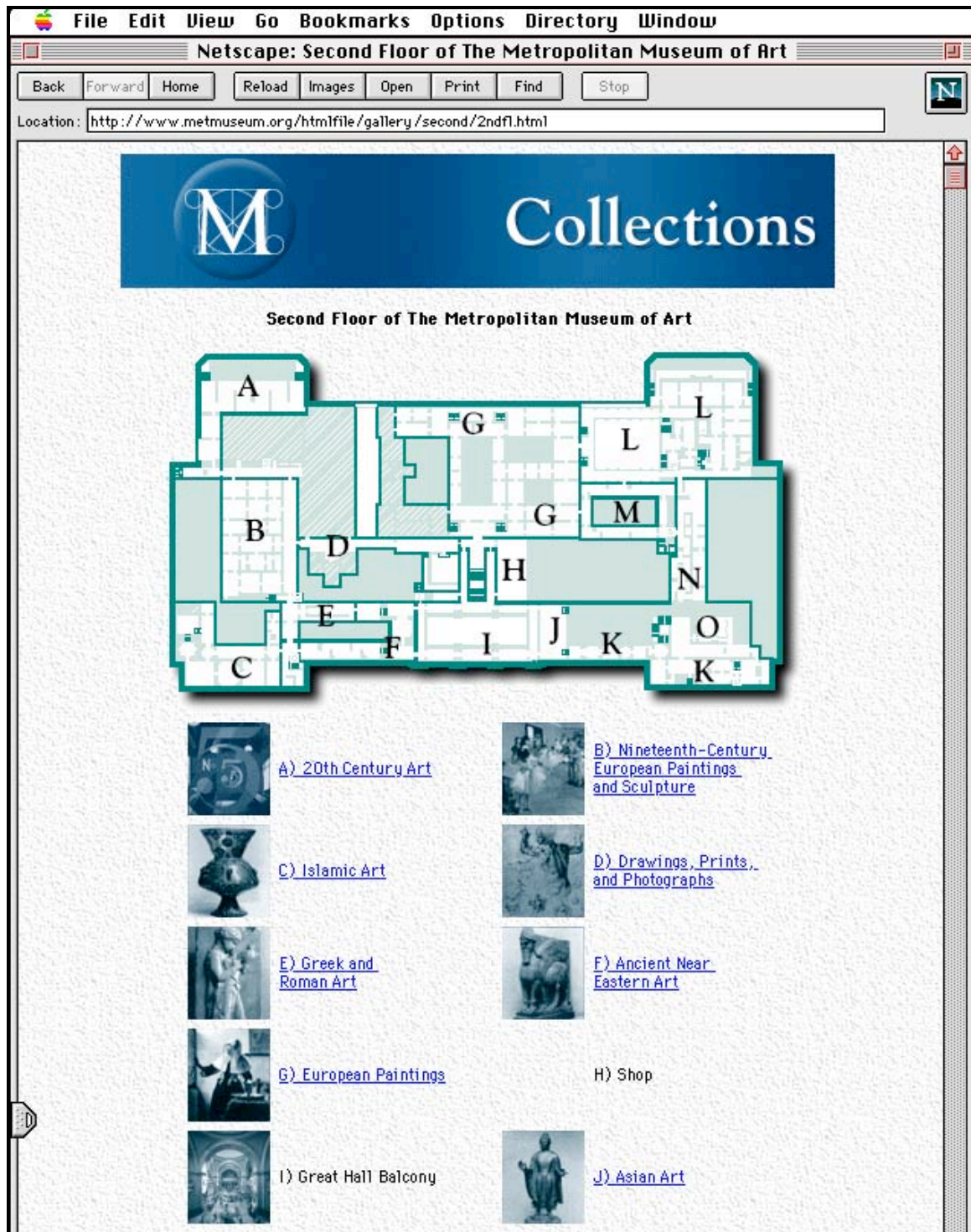


Figure 1: The Metropolitan Museum of Art, Second Floor Map
 <http://www.metmuseum.org/htmlfile/gallery/second/2ndfl.html>

A high-profile example of this spatially dictated organization of information can be found in the web site of the Metropolitan Museum of Art, in New York <www.metmuseum.org>. Here, the “map” of the collections (See Figure 1) is drawn from the map of the museum that a visitor

picks up from the information desk, after she's climbed the long stone staircase and walked between the fluted columns. As compelling as it may be to rely on the physical nature of the museum to convey its presence, such metaphors are less than successful at communicating either content or context in the 640x480 pixel world. The spatial organization of the galleries, which may or often may not reflect a logical sequence or progression, can be confusing and haphazard when seen without the physical context of the building. Why, for example, does this map say that Nineteenth Century European Paintings are *between* Islamic Art, and 20th century art, but that there is *no connection* between European painting and Nineteenth Century painting?

There is a temptation, in an information space without maps to transpose our physical world onto this new medium, but the intellectual inferences we make based on graphic proximity in schematic diagrams are not those of the relative physical positioning of navigational maps.³ By transposing physical navigation into conceptual space, we risk introducing errors in interpretation, as well as failure to communicate clearly. Despite this danger, our collective sense of the importance of the physical nature of our existence has given rise to many architecturally driven web site structures. We are hanging onto our pediments and porticoes as talismans of the aura of authenticity that they symbolize.

Museums without walls, or buildings either...

Unfortunately, it is the dematerialization of networked space that has given rise to some of the greatest concerns in the museum world. We've watched Nicolas Pioch create Le Web Louvre, and then have seen it metamorphosize into le web museum. <<http://sunsite.unc.edu/wm/> and mirrors>. This is the most well known and widely consulted of a plethora of 'personal museums'. These range from the amateurish "Art Galaxy" (Figure 2) maintained by Massoud Malek, Professor of Mathematics and Computer Science at California State University, Hayward <www.mcs.csuhayward.edu/~malek/Artfolder> to the professionally presented texas.net Museum of Art (Figure 3) maintained by Mark Harden at <lonestar.texas.net/~mharden/>.

On the one hand, this personal interest and enthusiasm could be seen as a positive force, to be directed and channeled by museums in their on-line programming. But the disregard for copyright and intellectual property law—despite the occasional presence of disclaimers that the sites are being created for personal and educational use—and the appropriation of published materials without acknowledgment, is worrisome; the appropriation of symbols may be even more misleading.

³ Much new work is now going on regarding the interpretation of complex information spaces. For example, Dynamic Diagrams has mapped the Mystic Seaport site, using its Mapa software. See www.mystic.org and www.dynamicdiagrams.com

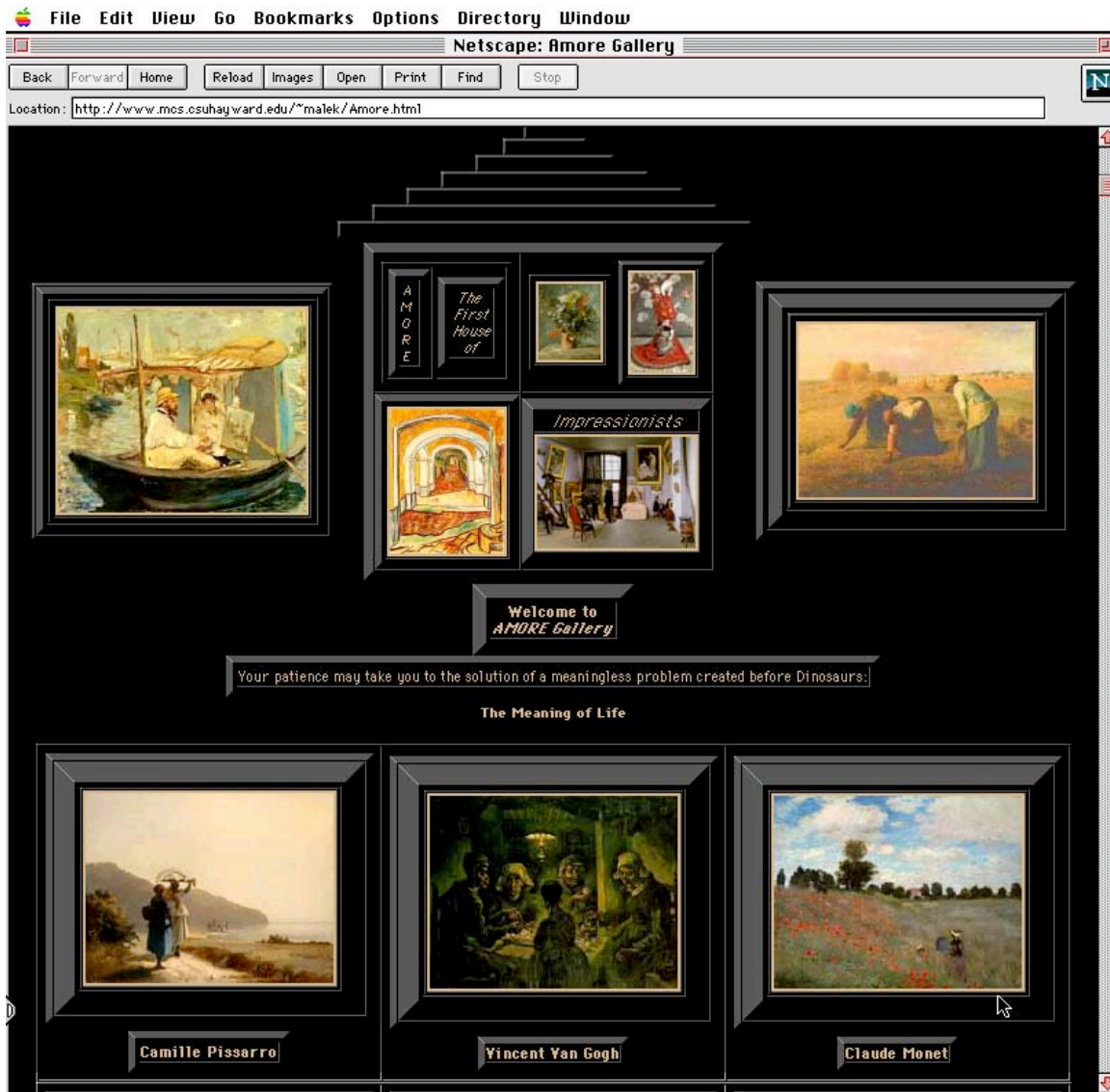


Figure 2: The Art Galaxy maintained by Massoud Malek, Professor of Mathematics and Computer Science at California State University, Hayward, California, <www.mcs.csuhayward.edu/~malek/Artfolder> All the works are presented in uniform size.

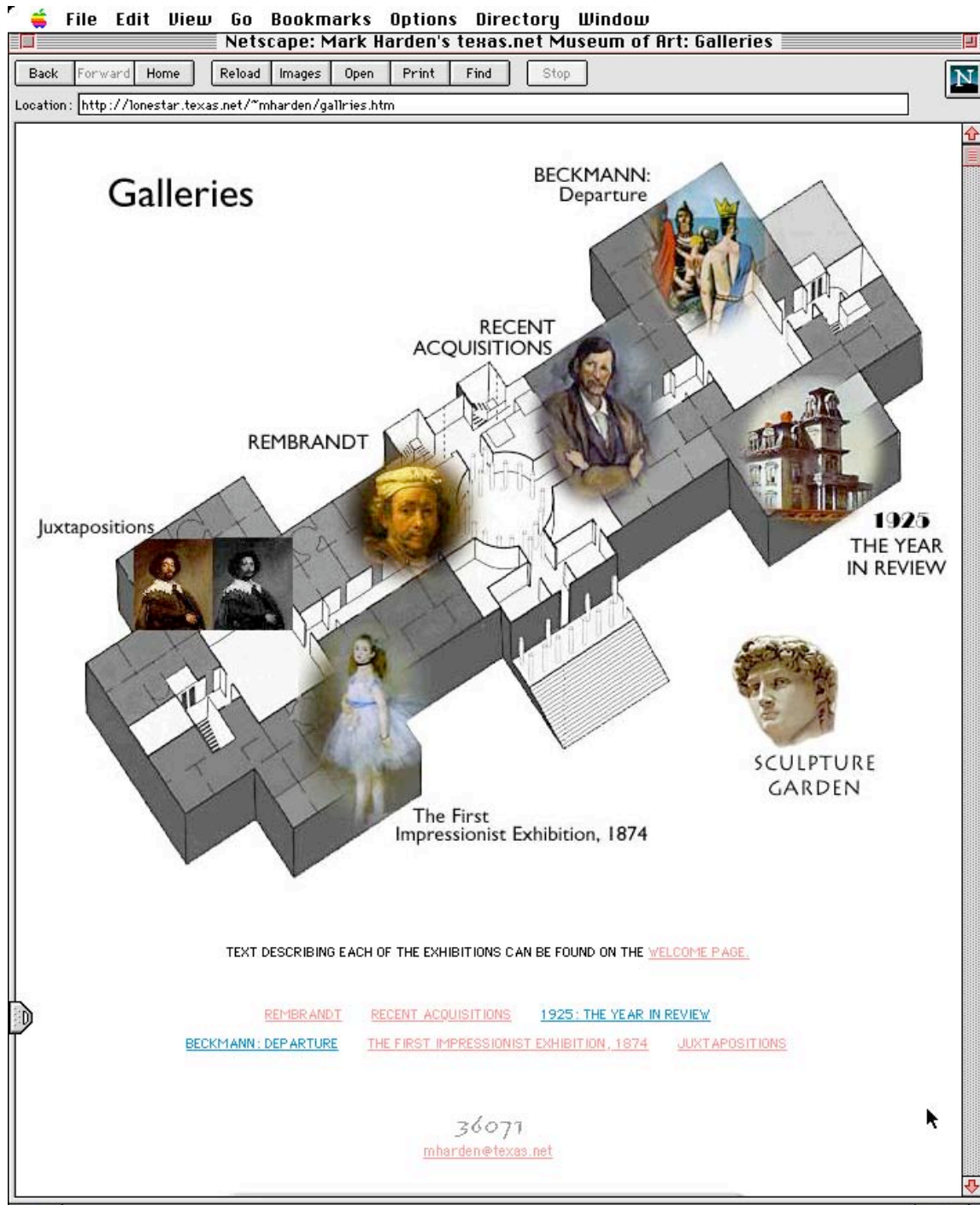


Figure 3: Not only does the *texas.net* Museum of Art <lonestar.texas.net/~mharden/> have a level of graphic design that causes it to read as a museum site, but it appropriates the floor plan of the National Gallery of Art, West Building.

Perhaps more significantly, these sites exist in without reference to the reality that they represent. Reproductions of works of art are most often posted without any indication of their original size,

position, or placement. The hangings of virtual galleries are often impossible: the *Mona Lisa*, a Canaletto, and a Mary Cassatt drypoint are all almost the same height in the Art Galaxy. (Figure 4).

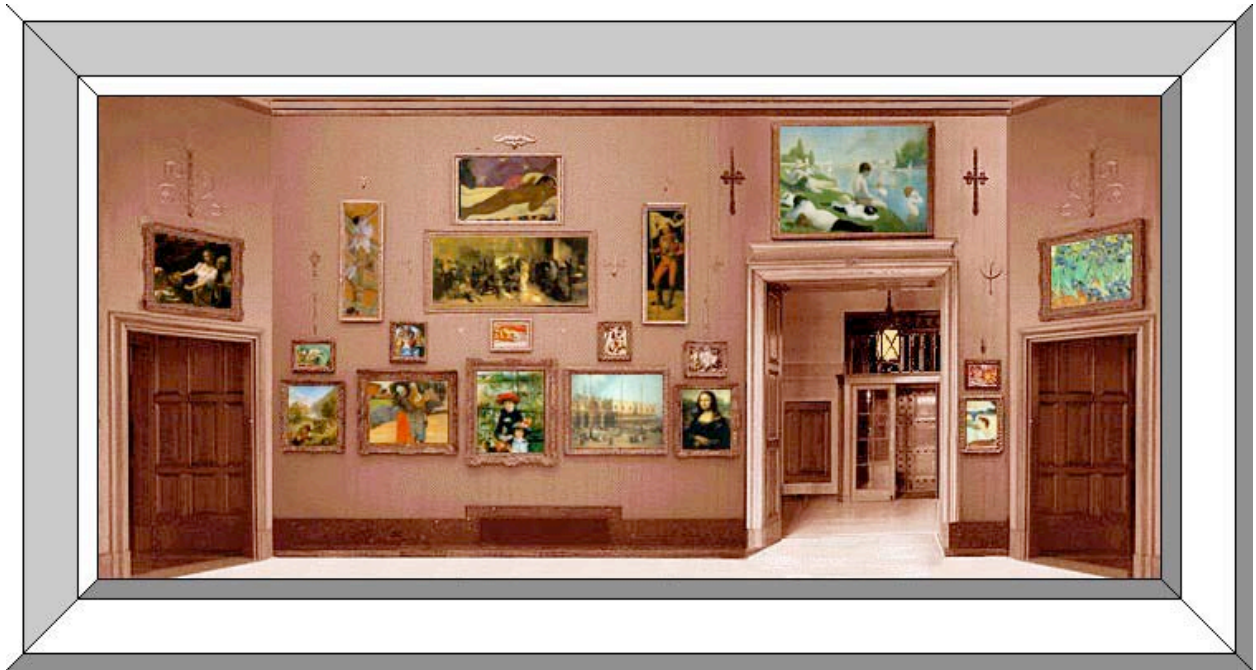


Figure 4: The Art Galaxy, virtual gallery <www.mcs.csuhayward.edu/~malek/Artfolder>

Often manipulated or altered images are included without reference to the original. In the Art Galaxy's Gallery of Illusions, <<http://www.mcs.csuhayward.edu/~malek/Illusions/Tempsr.html>> a series of well known paintings are manipulated so that the red and blue color spaces are offset slightly (Figure 5).

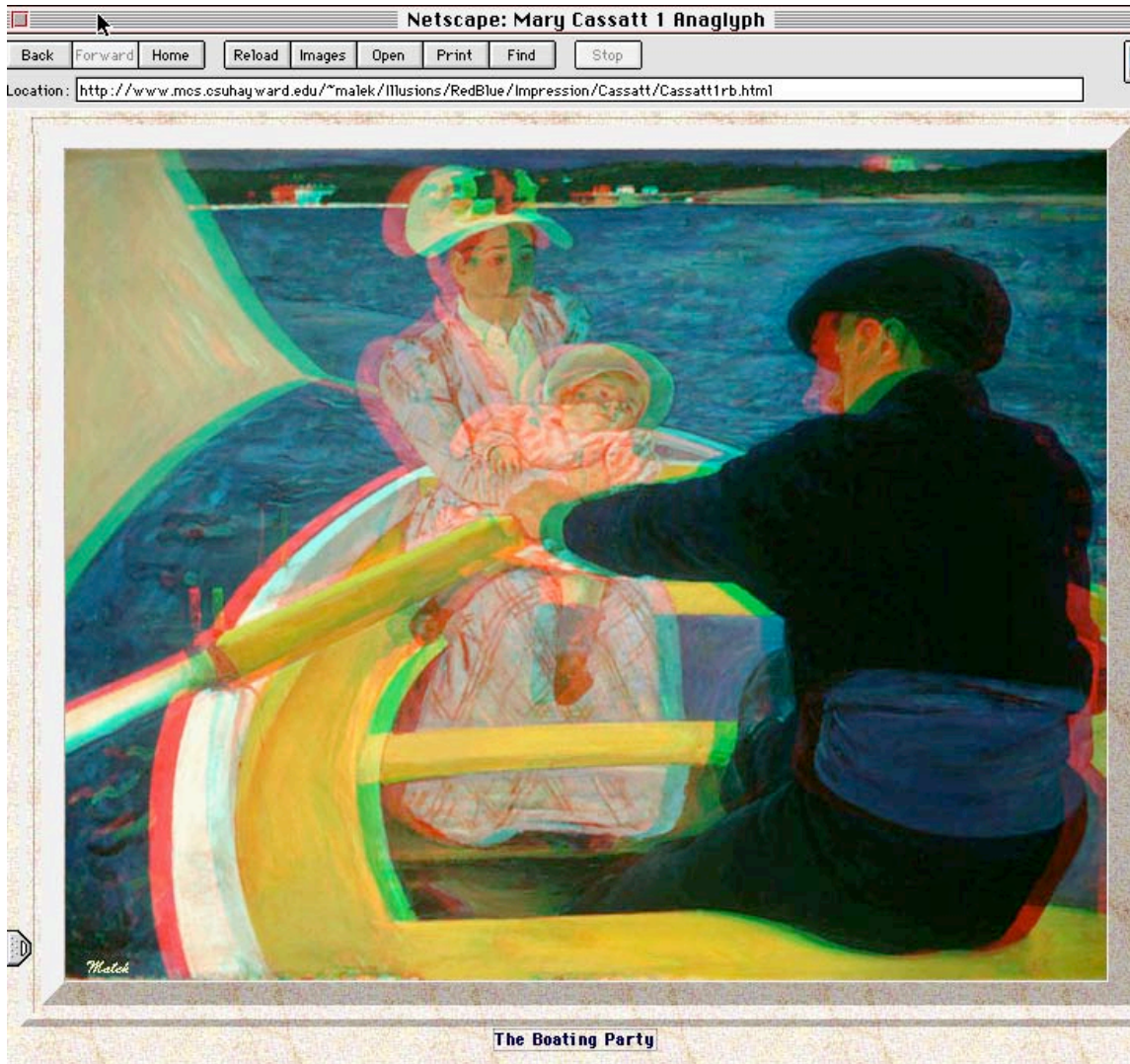


Figure 5: Mary Cassatt's *The Boating Party*, reproduced from the Anaglyph Gallery of the Art Galaxy <<http://www.mcs.csu Hayward.edu/~malek/Illusions/RedBlue/Impression/Cassatt/Cassatt1rb.html>> The web page author has signed the manipulated work in the lower left corner.

While it is possible to find a more faithful reproduction of Mary Cassatt's *Boating Party* elsewhere on this site, there is no link between it and this manipulation. Nor does the author of the site provide any details about the individual work, or its location. The only background provided is a brief biography of the artist. Obviously, the professor is trying to make a point here, in altering the original visual presentation of this image. But what this point is, is not clear from his web site. While Malek isn't making a claim to be 'the real thing' – indeed he's asserting an illusion – he isn't well representing the original work of art, either. Whatever the goal of this alteration, its evocative power would be strengthened by a link to a faithful reproduction.

Don't Fence Me In

On their own, and taken as individual instances, these small scale, simply virtual galleries should not cause a great deal of concern for museums. In fact, museums have something to learn from the many personalized museum-like installations that are appearing on the Web, for they point out a

need to interpret and contextualize works in an individualized space. As Peter Walsh, of the Davis Art Center at Wellesley College, Massachusetts, explored in a paper presented at the first Museums and the Web conference, and subsequently published both in the conference proceedings and a special issue of *Archives and Museum Informatics*, the Web can provide museums with an alternative to the “Unassailable Voice”.⁴ We’ve got an opportunity to stop speaking in the voice of the authoritative narrator, familiar to all of us from Acoustiguide tours or Educational Television, and to incorporate multiple perspectives and visitor feedback into our interpretive programs.

Being free of some of our own historical baggage might not be a bad thing, but how are people supposed to know that we’ve got the *real thing*? Where does the museum’s traditional role as custodian and interpreter of our cultural heritage fit, in the highly diversified information frontier? How can we best use the web to communicate, and accommodate diverging points of view, without sacrificing our educational and interpretive goals, or compromising the moral rights of the artists whose works are in our care?

Provide a Good Foundation

The key to a good museum site, and what sets it apart from many of the sites of individual art enthusiasts, is the depth and breadth of the content that museums can provide. Reproductions of Mary Cassatt’s *Boating Party* can be found at the Art Galaxy site⁵, in the Web Museum,⁶ as part of the texas.net Art Museum⁷ and on a number of other personal home pages. What sets apart the exploration of the painting at the National Gallery of Art is the interpretation and context provided.

A main page introduces the painting,⁸ [figure 6] and provides links to a number of other types of information: a full screen image, a number of details, [Figure 7] a detailed bibliography, exhibition history, provenance (including links to other works from the Chester Dale Collection), and the location where the work hangs in the Gallery. In addition to this somewhat scholarly art historical information, the work is placed in context the context of a tour, of the work of “Mary Cassatt and Auguste Renoir”, that explores both artists’ interest in scenes of everyday life. [Figure 8]

⁴ Peter Walsh, “The Web and the Unassailable Voice” *Archives and Museum Informatics: the cultural heritage informatics quarterly* Vol. 11, no 2, reprinted in *Museums and the Web 97: Selected Papers*, Pittsburgh, PA: Archives & Museum Informatics, 1997, pp. 69-76

⁵ See www.mcs.csu Hayward.edu/~malek/Artfolder/cassat9.htm, identified only as *The Boating Party*, and reproduced as a JPEG < <http://www.mcs.csu Hayward.edu/~malek/cassat9.jpg>> of 699 x 540 pixels.

⁶ See <http://sunsite.unc.edu/loouvre/paint/auth/cassatt/>, identified as The Boating Party /1893-94 (130 Kb); Oil on canvas, 90.2 x 117.5 cm (35 1/2 x 46 1/4 in.); National Gallery of Art, Washington and accompanied by a thumbnail image and a JPEG < <http://sunsite.unc.edu/loouvre/paint/auth/cassatt/boating.jpg>> of 1042 x 786 pixels

⁷ See <http://found.cs.nyu.edu/fox/art/cassatt/boating.html>, identified as CASSATT, Mary / The Boating Party / 1893-94 / Oil on canvas / 90.2 x 117.5 cm (35 1/2 x 46 1/4 in.) and accompanied by a JPEG [boating.jpg](http://found.cs.nyu.edu/fox/art/cassatt/boating.jpg) (1042 x 786)

⁸ See <http://www.nga.gov/cgi-bin/pinfo?Object=46286+0+none> where the work is identified as “Mary Cassatt / American, 1844 - 1926 / The Boating Party, 1893/1894 / oil on canvas, .900 x 1.173 m (35 7/16 x 46 1/8 in.) / Chester Dale Collection / 1963.10.94” and accompanied by a thumbnail image (190 x 172 pixels)

Netscape: The Boating Party

Back Forward Home Reload Images Open Print Find Stop

Location: <http://www.nga.gov/cgi-bin/pinfo?Object=46286+0+none>



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Mary Cassatt
American, 1844 - 1926
The Boating Party, 1893/1894
oil on canvas, .900 x 1.173 m (35 7/16 x 46 1/8 in.)
Chester Dale Collection
1963.10.94

From the Tour: Mary Cassatt, Auguste Renoir

This bold composition reveals the influence of the flat, patterned surfaces, simplified color blocks, and unusual angles of Japanese prints, which enjoyed a huge vogue in Paris in the late 1800s. The dark figure of the man compresses the picture onto the flat plane of the canvas, and the horizon is pushed to the top, flattening space in the distance. Our high vantage gives us an oblique, bird's-eye view into the boat. Its form is divided into decorative shapes by the intersection of its horizontal supports.

After 1893, Cassatt began to spend many summers on the Mediterranean coast at Antibes. Under its intense sun, she began to experiment with harder, more decorative color. Here, citron and blue carve strong arcs that divide the picture into assertive, almost abstract, shapes. This picture, with its bold geometry and decorative patterning of the surface, positions Mary Cassatt with such post-impressionist painters as [Gauguin](#) and [Van Gogh](#).

This painting, one of her most ambitious, was the centerpiece of Cassatt's first solo exhibition in the United States, in 1895. Her contacts with wealthy friends in the United States did much to bring avant-garde French painting into this country.

full screen image

bibliography

detail images

exhibition history

location

provenance

tour

purchase reproduction

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Figure 6: The main screen for Mary Cassatt's *The Boating Party*, from www.nga.gov with links to a full screen image, details, bibliography, exhibition history, location in the gallery, provenance, the

tour where the work is featured a narrative description of the painting, and a link to the bookstore, were it is possible to purchase a reproduction of the work.

Netscape: The Boating Party - Image Detail

Back Forward Home Reload Images Open Print Find Stop

Location: <http://www.nga.gov/cgi-bin/pdimage?46286+0>

Mary Cassatt
The Boating Party, 1893/1894
Chester Dale Collection
1963.10.94

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[home](#) | [search](#) | [help](#) | [feedback](#) | [highlights](#)

Copyright ©1997 National Gallery of Art, Washington D.C.

Figure 7: Details of Mary Cassatt's The Boating Party, from <www.nga.gov> allow a closer look at the surface of the painting, and the handling of the broad areas of color mentioned in the narration. It is possible to select a specific detail to view at screen size. Thus, in the image of the side of the man's face, the brushwork and application of the paint becomes visible.

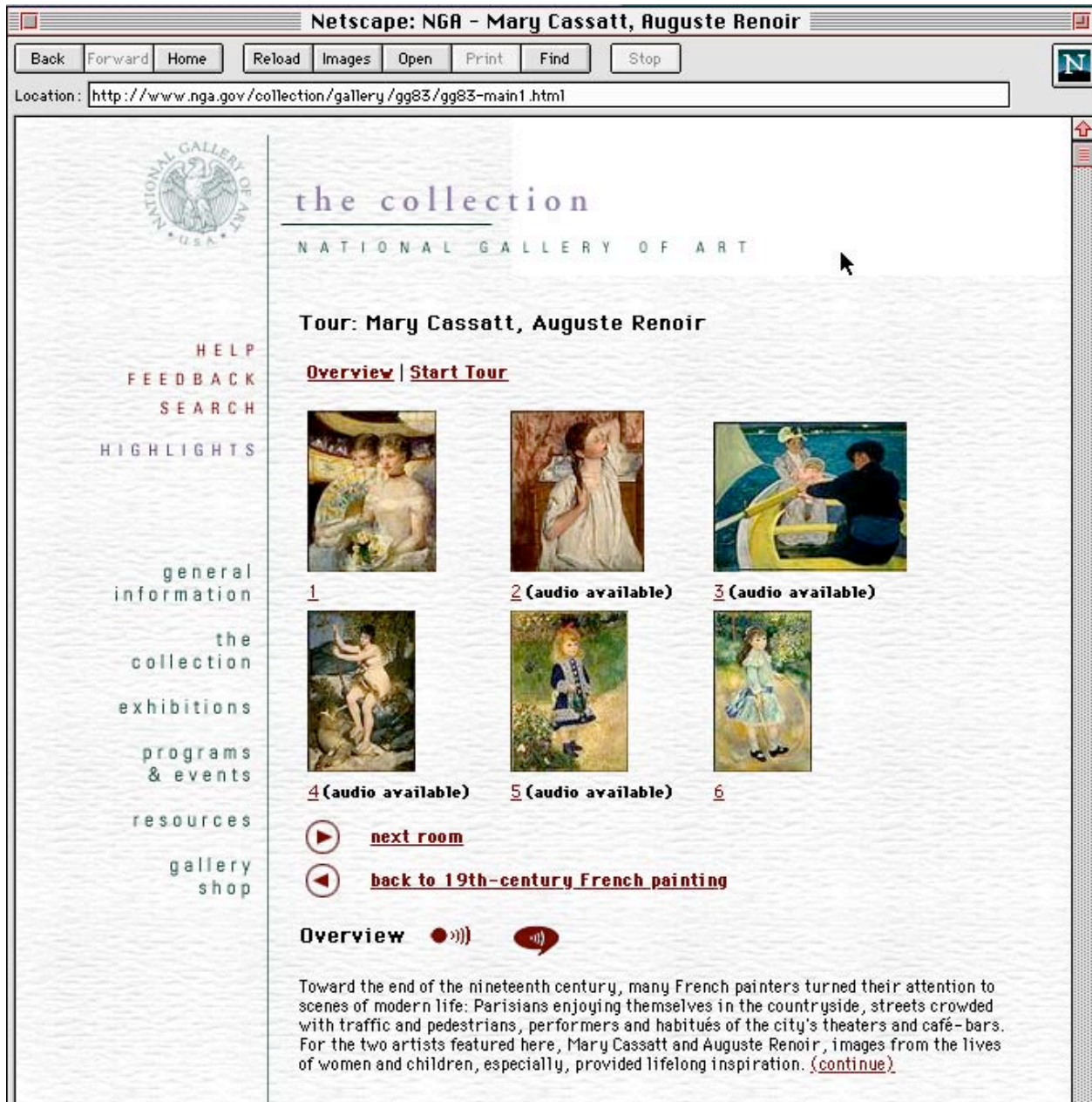


Figure 8: The opening screen of the tour “Mary Cassatt, Auguste Renoir” from www.nga.gov. This sequence of images highlights the artists’ exploration of everyday themes and subject matter, and helps give the scholarly descriptions of the individual works some context.

The work comes alive, however, in the narration by Phillip Conisbee, Curator of French paintings at the National Gallery of Art, available in an audio clip. He relates the painting compositionally to the Japanese woodblock prints that had such an influence on Cassatt. Pointing out the high horizon line and the angled forms that flow out of the frame, his reference to this visual precedent prompts a query of the NGA collection for examples— one that unfortunately yielded an unsatisfactory result, because the information given in the narrative was not precise enough to inform a meaningful database query.

Another significant point in Conisbee's analysis is also lost: a narrative reference to Manet's *Boating*, now in the collection of the Metropolitan Museum of Art, is unaccompanied by an image, or any means to follow up the relationship between these painters or their work. In both cases, the limitations of one medium - either print or audio - have provided false boundaries in a new multimedia space. Rather than leading to richer detail to explore, both leave the visitor interested but unsatisfied.

It becomes clear that access to "the real thing" includes the ability to demonstrate its physicality [through views of brushstrokes, for example]. Close proximity also enables the development of knowledge about a work, that, when communicated in a meaningful way, sets the museum site apart from others. Some aspects of the museum's interpretation of "the real thing" become discernible in the sea of images because of the context that surrounds it. But the 'realness' in detail and context is not dependent upon the 'thingness' that is granted by custody of the original work itself. A scholar with good reference works to hand could construct a similar inter-woven narrative about this Mary Cassatt painting.

Museums are learning, however, to explore the 'thingness' or artefactuality of the works in their care. We can build up knowledge of the physical make-up of works of art through interpretive installations about their conservation or restoration, and through the distribution of images that show a work from multiple points of view, or in different lighting conditions. Detailed knowledge about the actual construction of a work is one of the keys to establishing its authenticity. In a paper on "The Future of the Past Archaeology and Anthropology on the Web", John Hoopes posits that "virtual reality might face stiff competition from virtual tours of reality"⁹ if museums made remote sensing devices, microscopes, and gallery cameras available to their networked visitors.

Build Bridges and Pathways

Providing experiences in museums that can't be had elsewhere is one way to draw visitors into cultural heritage web sites. Building museum-to-museum connections ensures that the web that a visitor then follows is one of trusted and authoritative links. It should be possible for an individual interested in an artistic theme or personage, to move between the Web sites of collecting and research institutions, learning more about the works in each collection, and building a sense of meaning and context from their inter-relationships.

However, with our traditional focus on collections, this remains one of the weakest points in museum Web sites. We need to find vehicles to enable visitors to traverse a cultural information space, and to find information about themes, artists, time periods, without necessarily limiting their results to single collections. As much as this may run counter to our own instincts to keep our visitors 'within our own walls', it is critical for the creation of meaningful pathways into and through our digital collections. Finding things on the Web is as much about the links one follows as the place one starts. If we are not building richly interconnected spaces, that reflect the concerns of visitors - person, place, time, subject, theme - then we risk having them bypass our carefully structured sites, to use unstructured word-based search engines as a finding aid instead.

⁹ John Hoopes, "The Future of the Past: Archaeology and Anthropology on the Web," *Museums and the Web 97: Selected Papers*, Pittsburgh: PA, Archives & Museum Informatics, 1997, p. 279-292, reprinted from *Archives and Museum Informatics; a cultural heritage informatics quarterly*, vol. 11, no. 2, 1997.

The risk of a majority of users relying on network search engines as their point of departure is that the majority of museum information available *through* the Web is not actually *on* the Web. Instead, we've made detailed databases of museum content available through search windows. While this approach provides a much more flexible way to deliver dynamic content and manage a growing site, this kind of information delivery does not mesh with the 'web crawling' robots that construct Lycos, AltaVista, WebCrawler, or Excite - to name just a few of the existing search engines.

As a result, museum information loses pride of place to the more thematically oriented personal galleries. A search for information about an artist, such as Mary Cassatt, will produce significantly more 'hits' from private pages than from museums themselves.¹⁰

Being Connected

Museums need to work together to raise their collective profile as part of the information landscape. The Virtual Library: museum pages, now maintained under the auspices of ICOM is a good starting point.¹¹ But its orientation towards institutions, and its reflection of our own collection-based myopic perspective ensures that it is not meeting the needs of a significant portion of museum visitors.¹²

As Jane Sledge pointed out, in her article on "Points of View" presented at ICHIM 95, we need not know more not just about what people want to know, but why they want to know it.¹³ It often appears that we are trying to solve a new problem with an old answer, and as a result, are shoehorning information collected or for one purpose into delivery vehicles designed to serve another. We've focused a great deal of attention on standards for collecting information, and documenting collections, without thinking about how we can best distribute it, and how we can make it relevant to those who use it.

Time spent on the Web, is time spent exploring the relationships between things. It's not so much about searching databases as it is exploring information spaces. Our information delivery strategies

¹⁰ Searches made during the preparation of this paper, on popular artists' names such as Cassatt and Seurat, rarely produced a museum site in the top 10 results from any of the search engines. Although replicating specific searches is impossible, given the dynamic nature of the Web and its discovery tools, it is possible to regularly reproduce similar results.

¹¹ See www.icom.org/vlmp

¹² The difficulty of maintaining this kind of quality index to a domain has been acknowledged, particularly among the subject-based indexes of the Joint Information Systems Commission projects in the UK. Criteria for inclusion or exclusion are also inconsistent (see Alison McNab, Betsy Anagnostelis and Alison Cooke, "Never mind the quality, check the badge-width!" in *Ariadne*, Issue 9, www.ariadne.ac.uk/issue9/quality-ratings/). Others openly criticize the subject gateway approach. In his opinion piece "Why to avoid quality sites?" Willard McCarty cites three reasons: (1) the organisational scheme does not correspond to the way I think, so I have a hard time finding what I need and think I can do better by specifying keywords; (2) the list maintainer cannot possibly keep up with the rate at which new items are popping up and changing their addresses; (3) my interests are not well served by the disciplinary divisions." See the AHDS Newsletter, Issue 2, July 1997 <<http://www.kcl.ac.uk/projects/ahds/background/gateways/whynot.htm>>

¹³ J. Sledge, "Points of View" *Multimedia Computing and Museums*, Selected papers from the Third International Conference on Hypermedia and Interactivity in Museums (ICHIM95/MCN 95), ed. by David Bearman, Pittsburgh: Archives & Museum Informatics, 1995, 335-346.

need to make the most of the relationships between and among the works in our collections. Indexes may provide a starting point, but they don't meet the exploratory needs of many kinds of users. We need to find ways to ensure that virtual visitors stay within a trusted environment of a cultural heritage web, by actively creating links between museums sites, and by enhancing our own collections documentation with the context that other works of art or artifacts can provide. We can make the cultural heritage Web one that communicates the ideas and issues we interpret in our educational programs, and we can make these interpretations available so that others can link to them.¹⁴ Doing so requires connections within museums as well. We need to work across traditional departments, so that documentation specialists and educators work together to meaningfully deliver information about our collections.

Enable Access

One way of ensuring that we are creating cultural heritage resources that can be located and inter-related is to describe them with metadata that conforms to network-wide standards. Museums need to move ensure that their own discussion of documentation standards takes place within the context of the development and application of the Dublin Core to the description of many different kinds of networked information. If we are part of this discussion, and implement its results, we can ensure that when search engines become more sophisticated, our sites will be found. Making museum information part of a broader landscape will ensure that our resources are used alongside those of the library or archival community.¹⁵

We also need to ensure that we are enabling access to quality networked scholarly information rather than erecting barriers to its creation and use. Many institutions are leery about granting rights for the digital use of materials in their collection, and decline requests to reproduce works in electronic form. As a result, particularly in the US, many researchers are resorting to the defense of "Fair Use" and making often inferior and poorly documented copies of available images. By providing access to quality visual information, and accompanying it with quality documentation, cultural heritage institutions can contribute to the development of a literate generation of digital scholars.¹⁶ The Museum Educational Site Licensing Project was an experiment that explored the use of digital museum resources in higher education. We need to move from projects to programs, however. The Art Museum Image Consortium, a collaborative initiative of the Association of Art

¹⁴ The recently published American Council of Learned Societies, Occasional paper No 37, *Information Technology in Humanities Scholarship: Achievements, Prospects and Challenges - the United States Focus*, by Pamela Pavliscak, Seamus Ross and Charles Henry, (1997, available at <http://www.acls.org/op37.htm> makes interesting reading for those who feel they are creating resources for scholarly use. We need further studies of this sort about the information use behavior of other sectors of the educational community, including undergraduate teaching, high school, and primary and junior school students.

¹⁵ For background on the Dublin Core see: www.purl.oclc.org/metadata/Dublin_Core. David Bearman has written about this issue in a paper presented at CIDOC 97.

¹⁶ The Museum Educational Site Licensing Project (MESL) provided an experimental environment within which to explore the delivery of museum content for academic use on campus networks. The MESL final report is available at www.gii.getty.edu/mesl. The significance of the change in attitude to visual information that we have seen in the higher educational community is pondered by Clifford Lynch in "The Uncertain Future for Digital Visual Collections in the University", *Archives and Museum Informatics: a cultural heritage informatics quarterly*, Volume 11, no 1, 5-13.

Museum Directors, is now doing this in North America. Museums need to up-the-ante and become *the place* for quality documentation about the material world.¹⁷

As I noted earlier, we are as yet without a satisfactory means to communicate authenticity and reliability in the digital world. The flip side of this is that we also often forget to apply the critical faculties we have developed doing research in other media to our electronic adventures. While there may be an 'aura of authenticity' associated with electronic information, museums must feel that the delivery of quality information is part of their responsibility for interpreting the past. We have to ensure that the information we make available is the best that it can be, and we must also help others to develop their own abilities to recognize quality when they see it, and to interpret meaning from electronic information.¹⁸

Authentication tools and technologies

There has been a latent tendency within the electronic information community to hope for a technological solution to the issue of information authentication.¹⁹ Many such vehicles, including watermarks,²⁰ will certainly assist in the post-facto identification of the source of a particular digital object, or the integrity of a particular digital file. But they will not solve the filtering problem - separating the wheat from the chaff - or finding the needle in the proverbial haystack. Digital Object Identifiers,²¹ being developed by the Association for American Publishers in partnership with the Corporation for National Research Initiatives and the Copyright Clearance Center, also offer some possibility of identifying the provenance of a digital object and tracing its ownership and origin. A consortium of publishers plans to demonstrate the application of the DOI at the Frankfurt Book Fair this fall.

However, ownership and quality are not synonymous; watermarking a digital image will not ensure that its color balance is correct, that its content is documented, or that its scale in relation to the original is communicated. Nor will it indicate what the source of the digital image was: whether it was scanned from a 35mm slide, a 4x5 transparency, an 8x10 transparency, or taken with a digital camera back. These aspects of the conversion of a image to digital form are more critical than a watermark in evaluating the visual information that it contains.²²

Another technological approach worth watching is PICS, the Platform for Internet Content Selection. This emerging standard 'establishes Internet conventions for label formats and

¹⁷ See the arguments about "getting RICH" in David Bearman, "Museum Strategies for Success on the Internet", *Spectra*, Vol. 22, no. 4, Summer 1997, 18-24.

¹⁸ The development of critical reading skills when it comes to electronic documents was one of the research issues raised recently within the discussions of the electronic records community. See David Bearman and Jennifer Trant, "Electronic Records Research Working Meeting, May 28-30, 1997, A Report from the Archives Community" in *D-Lib Magazine*, July/August 1997, available at <http://www.dlib.org/dlib/july97/07bearman.html>

¹⁹ See for example Peter Graham, "Long Term Intellectual Preservation" July 18, 1995 available at <http://aultnis.rutgers.edu/texts/dps.html>

²⁰ Many watermarking schemes are now in existence. Two that offer registry services internationally are Digimarc, <www.digimarc.com> in the US and High Water Signum <www.highwatersignum.com> in the UK.

²¹ See www.doi.org for background and details about the Digital Object Identifier.

²² Watermarks can help ease anxieties about making high-quality visual information available in digital form, however, as they enable the identification of the source of a particular copy of a digital image, and thus allow an institution to prove appropriation or misuse.

methods”, which enable content ratings to be embedded within documents.²³ Designed to allow the filtering of content so that parents could limit what their children has access to, the PICS architecture has a flexibility that is appealing to anyone concerned with the creation of trusted networks of authoritative information. However, we can't rely upon technology to create the needed genre – the quality cultural heritage Web site. Instead, we have to look to ourselves and each other to build an interlocking series of paths and links that move the visitor through an information space that is recognizable as trustworthy, and interesting.

Opening Doors

We mustn't let our concern for the authenticity and accuracy of museum information stifle our creativity, or hamper our ability to enliven the experiences of our visitor. Indeed, the narrator's voice, one of the most interesting aspects of the Web site at the National Gallery of Art comes very close to the “unassailable”. As well as communicating what we know about our collections, we must remain open to what other know and interpret. One particularly nice device in use at the Museums of Fine Arts, San Francisco, asks visitors to “Tell us what you know” and employs feedback buttons that allow the visitor to add keywords that describe the image, and provide information about the artist or the work itself.²⁴

Interactive devices, that allow the user to engage with the information presented, draw them in to new experiences and spaces. User-sensitive feedback mechanisms, such as the ILEX system in development at the University of Edinburgh²⁵ are critical to presenting information that appears appropriate and relevant to an individual's experience and circumstances, and that respond to explicitly or implicitly expressed interests. We need to enliven our web sites with ways to give back some control; we need to disassociate authority and quality.

New Models

It is clear that we have to look for new models for creating a distributed cultural heritage information web that integrates the holdings of museums. One model, that recognizes the educational potential of a unified library of digital museum content is the Art Museum Image Consortium (AMICO). AMICO is being founded by the Association of Art Museum Directors to provide educational access to and delivery of cultural heritage information by creating, maintaining and licensing, a collective digital library of images and documentation of works in their collections. Formed as a not-for-profit corporation, AMICO benefits its members by enabling them to do things that they cannot do on their own. Specifically, it furthers their educational missions by: creating a collective library of art from North American museums for use in education at all levels; providing members access to each others holdings and to the contents of museums in other countries for their own educational uses; negotiating digital rights with artists, artist rights societies, artists estates and other rights holders; providing its members' access to collective funding to pursue

²³ See Paul Resnick and James Miller, “PICS: Internet Access Controls Without Censorship”, Communications of the ACM, 1996, vol. 39(10), pp. 87-93. <<http://www.w3.org/PICS/iacwcv2.htm>>

²⁴ See www.thinker.org

²⁵ Described by Janet Hitzeman et al in “Dynamic Generation of Museum Web Pages: the Intelligent Internet Explorer” in *Museums and the Web, 1997, Selected Papers*, Pittsburgh, PA: Archives & Museum Informatics, 1997, 253 - 260 (reprinted from *Archives and Museum Informatics: the cultural heritage information quarterly*, Vol. 11, no. 2, 1997) and Jon Oberlander et al, “Exploring a gallery with intelligent labels”, *Virtual Interactive Experiences and Real Museums: Selected Papers from ICHIM97*, Pittsburgh, PA: Archives & Museum Informatics, 1997.

their educational missions, and enhancing the information infrastructures and documentation practices of members.

Participating in AMICO can also help individual museums move into the networked information world by reducing technology risks through collective decision-making; adopting common standards and guidelines and sharing expertise, and creating opportunities for collaborating with technology firms, funding sources, standards organizations, telecommunication providers, and others.

The primary objective of AMICO is to create a library of digital documentation from museums for licensing to educational users. Members will give the Consortium a non-exclusive educational uses license to their digital content. By providing for different levels of membership participation from observer through full contributor AMICO will balance the needs of small and large museums, the well prepared and the novice,.

In addition to acting as a coordinating agency collecting and distributing content for educational use, AMICO will deliver services to its members including: providing "best practice" guidelines, "frequently asked questions", standards for data capture, advice on hardware and software, application guidelines, training and research and liaison with developing standards; assisting in data value standardization, the addition of unique identifiers and watermarking of images, subject indexing, metadata augmentation, thesaural explosion of terms in controlled vocabularies, markup of text to SGML, and mapping institutional data to export standards; creating an integrated, publicly accessible directory with many access points and different interfaces for different users which enables educators to identify works which they have licensed and may use through AMICO and allows the public to seek further rights including commercial use rights from the individual museum members; defining the minimum rights management data requirements, creating searchable rights metadata systems, negotiating rights with individual rights holders and their collectives, writing model licensing agreements, providing a forum for and developing terms of licenses for schools and school districts, museum education departments, and public libraries, and developing and disseminating end-user responsibility training materials and monitoring and analyzing uses and users, conducting focus groups to identify users needs, and promoting innovative educational uses of museum digital content.

In all these areas, the existence of a coordinating body will enable participating museums to capitalize on the collective expertise in order to develop quality digital collections. AMICO members will design the products that it licenses and the services it offers, overseeing (through their Board) the administration of the Consortium, and allocating its income to cover program costs.

The framework being designed for AMICO is one in which museums work together to enable educational users to gain rational access to their collective holdings. This will be facilitated a set of technical standards that will enable the Library to be comprised of contributions from many different collections. This interconnectivity will be facilitated on an intellectual level as well, because each member museum also gains the right to use the assembled AMICO Library for educational purposes. Thus it will become possible for museums to begin to build the right interconnections between works in different connections that embody quality in complex information.

Additionally, a publicly accessible AMICO catalogue will provide a powerful starting point for an artist, subject or thematic search that cuts across individual collections. Redesigning information

delivery to the educational sector within AMICO reflects a need to rethink traditional approaches to the design and delivery of information throughout the museum.

Conclusions

Writing about the approach taken to the development of the new CD *Voices & Images of California Art* Peter Samis of the San Francisco Museum of Modern Art said :

“I know our program was a departure from the standard collection-based museum CD-ROM/multimedia experience, and our decision to focus narrowly and in great depth -- with more than an hour's worth of assets devoted to each of only eight artists --was a bit risky. As a result, we left many important artists and works out of our first multimedia publication, and included many works and resources that are not even in the museum's holdings. But it seems to be working: a group of teachers has designed a curriculum based on the CD that cuts across subject areas (and even encourages uniting them in inter-teacher collaborations) [this is]fertile ground for us as museum educators: giving our audiences the tools to construct their own meanings, which include, but are far from exhausted by, those that we ourselves might attribute to the works in our care.”²⁶

As museums, we need to find a way to move the knowledge we hold of our art and culture out beyond our walls, and into a new set of spaces. Networked information space is the natural place of discourse for the next generation; chat rooms are as comfortable to them as the mall was to the generation previously, and the coffeehouse to the one before that. If we are to ensure that these network experiences are based on reality as much as on virtual reality, we have to make our collections and the way we communicate about them accessible and relevant.

Authenticity has its roots in trust. To develop a trust in our resources in the generation now being educated, we must teach them to expect a challenging, interesting and enjoyable experience, and enable them to make critical judgments about the meaning of the world around them, as reflected in the unique works of art and artifacts in museum collections. Perhaps it's not about having “The Real Thing” at all, but about having “The Right Stuff”. We are seeing others with access to information about our collections work to re-present them in ways that they find meaningful. Museums need to find a way to set our sites apart. We need to set our sights on the development of a new set of symbols, a new vocabulary that allows museum collections to speak in a narrative and/or interconnected information space that is constructed by and for the visitor. Using the powerful new tools at our disposal, we need to weave a web of new realities and interpretations, that communicates the magic of the material past to a generation comfortable in an immaterial world.

²⁶ From a posting by Peter Samis, Program Manager, Interactive Educational Technologies, San Francisco Museum of Modern Art, to museum-ed@pfreedom.mtn.org, 18 Jun, 1997, with the title “RE: Interpretation & Constructivist approaches”