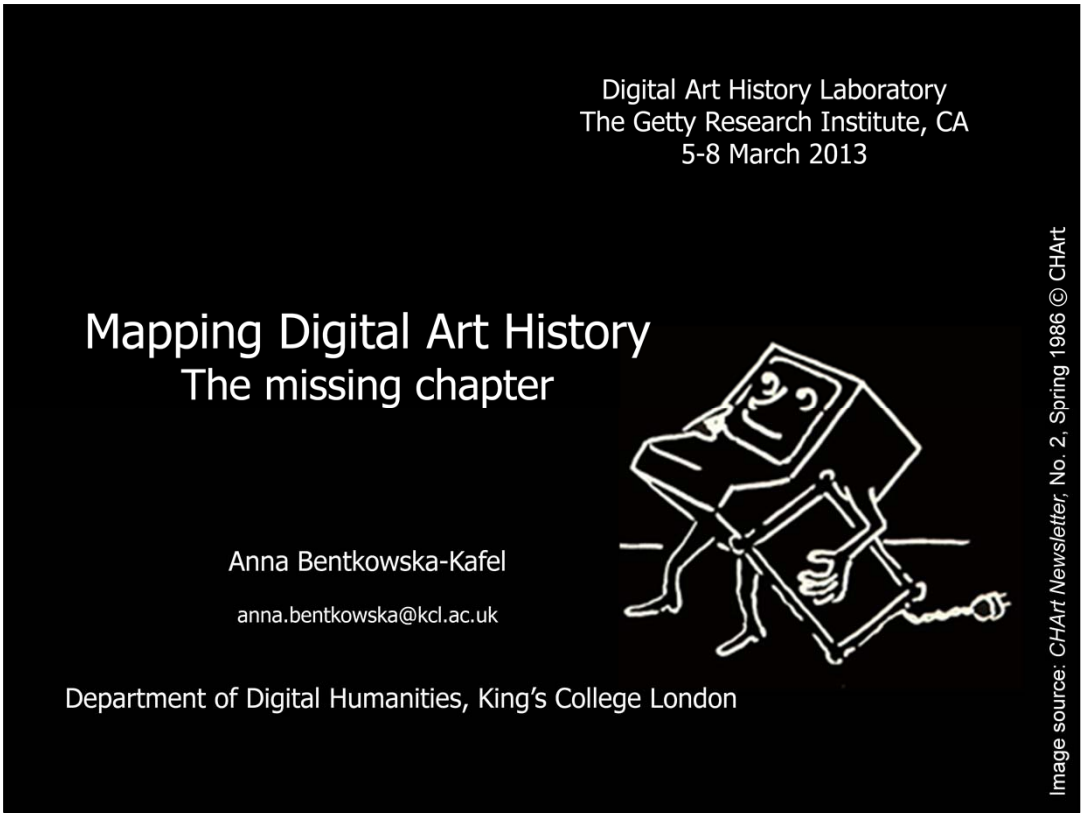
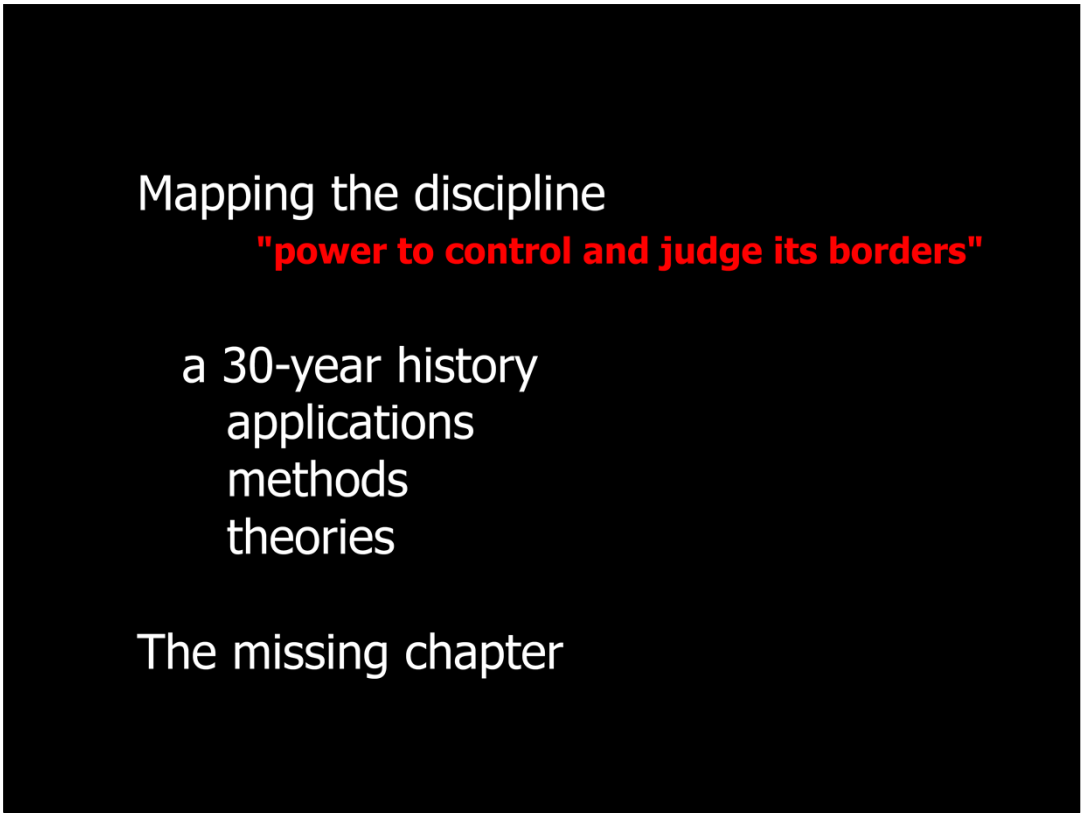


When we talk about the nature and significance of Digital Art History, we generally recognise the renewed interest in this field and its recent rise in status. However, defining the nature of Digital Art History – with all its cognitive and methodological complexity – is more difficult. It is relatively straightforward to look at the applications of digital technology – past, current and even future. They give us a pretty good picture how the discipline has evolved over the last three decades or so, and foresee possible future directions. Whether applied Digital Art History has led to establishing a theoretical basis that could set the field WITHIN or APART from mainstream Art History is an open question.



Mapping Digital Art History could be an interesting collective goal. Metaphorical 'disciplinary mapping' has been attempted before. In 1997 Robert S. Nelson, published in *The Art Bulletin* an article titled, 'The Map of Art History'. [1)] The scope and context of Nelson's 'map' is different from what I want to propose today, but some of his thoughts on Art History are worth noting. He considers Art History as "a practice, a discipline, a narrative and a rhetoric with its own history, protocols and institutional structures"; a discipline that "acquired and has been accorded the ability and power to control and judge its borders, to admit and reject people and objects, and to teach and thus transmit values to others".[2)]

I'm mindful of Murtha's instruction to stay away from 'blue-sky' thinking that is always so tempting when talking what technology can do for us. I'll be pragmatic. This is more about what we have already achieved, how we can capitalise on the hard-earned successes and failures, and how we can inspire new generations of scholars by promoting Digital Art History. The literature on the subject is massive, but I am not aware of any popular introduction to the History of Art that would adequately cover computer applications. This is what I mean by a missing chapter. I'm thinking about a particular book, hence 'the missing chapter."

[1)] Robert S. Nelson, 'The Map of Art History', *The Art Bulletin*, Vol. 79, No. 1 (March, 1997), pp. 28-40.
[2)] *Op. cit.,* p. 28.

The context

Recent surveys and critique of the condition of the discipline:

- The Crisis in Art History*, Visual Resources*, Special Issue, Guest ed. Patricia Mainardi, December 2011
- Diane Zorich, *Transitioning to a Digital World. Art History, its Research Centers, and Digital Scholarship,* A Report to the Samuel H. Kress Foundation and the Roy Rosenzweig Center for History and New Media, George Mason University, May 2012

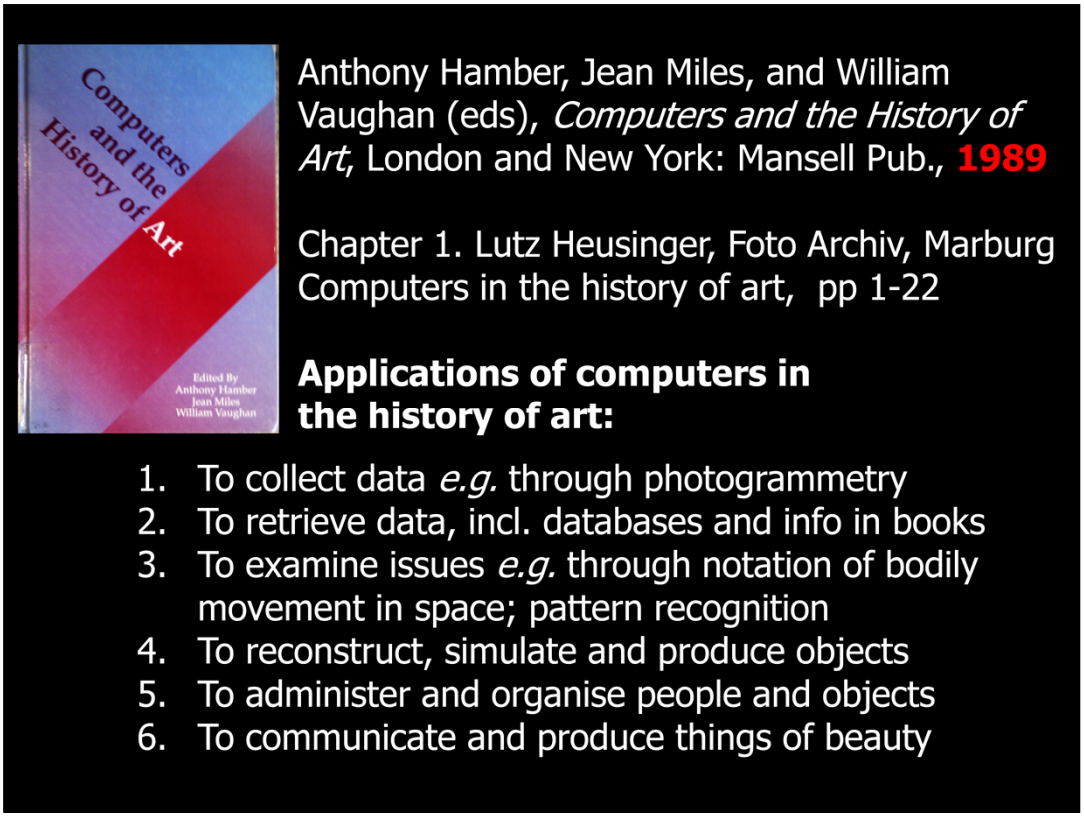
There have been many surveys of the condition of the discipline and predictions of its future. The slow and problematic uptake of digital images dominated the debate in the past. The non-technical barriers that used to cause so much apprehension towards digital images are less of a problem, but they are still present in other areas. Diane's report addresses many of these issues. The report has been widely circulated and commented upon by both critics and proponents of pervasive computing. Ten months on, we are here to reflect upon its findings and sum up its impact.

A broader picture is also important.

The general perception of the break-up of fixed orders and conventions; the perception of reality and daily practices as fluid, fragmented and temporary – therefore unstable – is not helpful. Many 'deaths' have been proclaimed – of art, of the artist, of art history, even history itself. Constructive discussions feed on optimism. Let's be reminded by Roland Barthes that the death of the author must be the birth of the reader; that it is the language that speaks. The fear of relinquishing the power of the individual to technology, or the audience, seems very real in any discussion of Digital Art History.

My problem is that I have very little new to say. I can only repeat what has been said before. The big question that brings us here – WHAT IS DIGITAL ART HISTORY? – has been raised many times by many art historians and non-art historians. 'Is there a "Digital" Art History?' – asks Johanna Drucker. [1)] Why, despite the discipline having been established for quite some time, do we keep asking these questions? Are we asking the wrong questions? Or, being engaged in this field in one way or another, are we simply asking for recognition?

[1)] Johanna Drucker, 'Is There a "Digital" Art History?', *Visual Resources,* special issue on Digital Art History, Vol. xxix, No. 1, pp. 5-13; forthcoming March 2013.



One may argue that the founding principles and methods of Digital Art History have been laid down decades ago. Although the use of the phrase 'Digital Art History' is later, significant applications of computer technology – demonstrating its potential to art studies – go back to the late 1980s.

In 1989 Computers and the History of Art (CHArt) published its first overview of the field in book format. Director of the Foto Archive in Marburg, Lutz Heusinger, contributed the opening chapter. He groups computer applications in the History of Art into six areas. They include:
(1) Data collection, for example, through photogrammetry and digital photo processing, which "makes possible the production of scale drawings to determine the structure, form, size and position of objects". (2) He couples data retrieval from database records with the transfer(ance) of knowledge from printed books into the computer. (3) Examination of art-historical questions, such as composition of complex figurative paintings, may benefit the use of 'codified notation of bodily movement in space'; he gives examples of successful applications of pattern recognition techniques in comparative analysis of profiles of prehistoric ceramics. Heusinger also talks about problems. He writes: "Using computers only makes sense if we call into question the principles organizing our discipline at present: the principles of private ownership in scholarship...". Writing 23 years later, Diane notes the same problem.

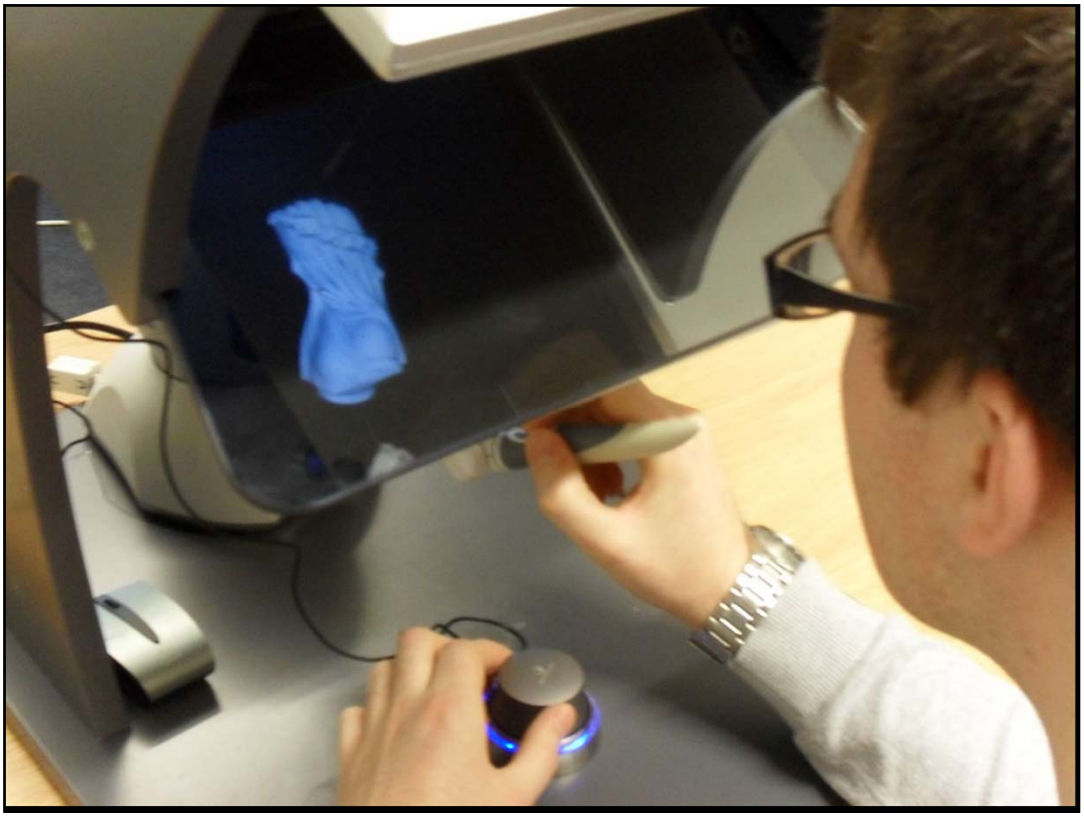
[1)] Lutz Heusinger, 'Applications of Computers in the History of Art', *Computers and the History of Art*, Anthony Hamber, Jean Miles, and William Vaughan (eds), London and New York: Mansell Pub., 1989, pp 1-22.

1997

Kathleen Cohen, James Elkins, Marilyn Aronberg Lavin, Nancy Macko, Gary Schwartz, Susan L. Siegfried, and Barbara Maria Stafford, **Digital Culture and the Practices of Art and Art history**, *Art Bulletin* Vol. 79, issue 2 (June 1997), pp. 187-216

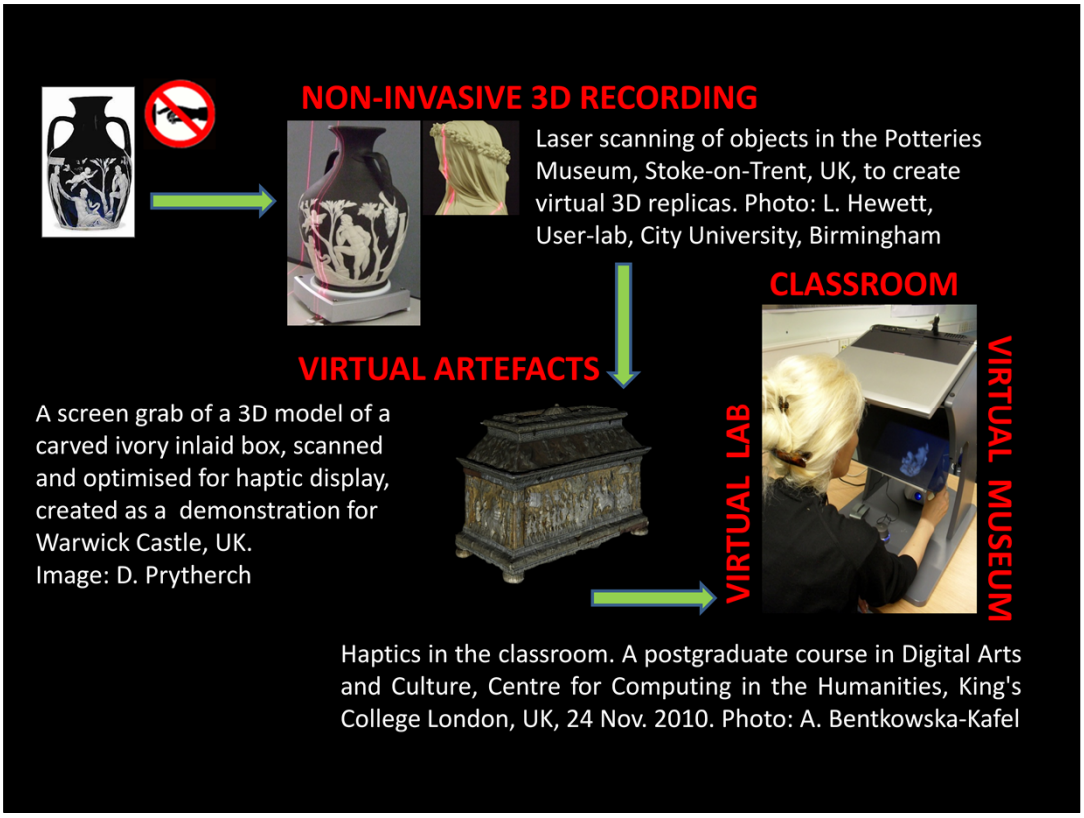
Stafford suggests a role to which art history needs to aspire if it is not to be put out of business by developments in the digital presentation and computerized distribution of information.

This article represents the developments and concerns that preoccupied us in the 1990s, predominantly the huge effort to digitise teaching slide collections and the work on classification and metadata standards. But also: the possible effects of digital imagery on museum objects (Schwartz); making and teaching digital art (Macko); and cultural heritage policy in Europe and the United States (Siegfried). Lavin sets forth three types of art historical activity that will result from the electronic revolution: personal database construction, collaborative research, and interactive teaching. Talking mainly about digital images, Barbara Stafford laments over the idleness of art history: "We have finally sailed into the imaging age and strangely, art history is not at the helm. Perhaps I am not alone in thinking that there is something deeply embarrassing in our having relinquished to communication schools and literary studies departments, almost by default, any leadership role in the sweeping visualization revolution." [p. 214]



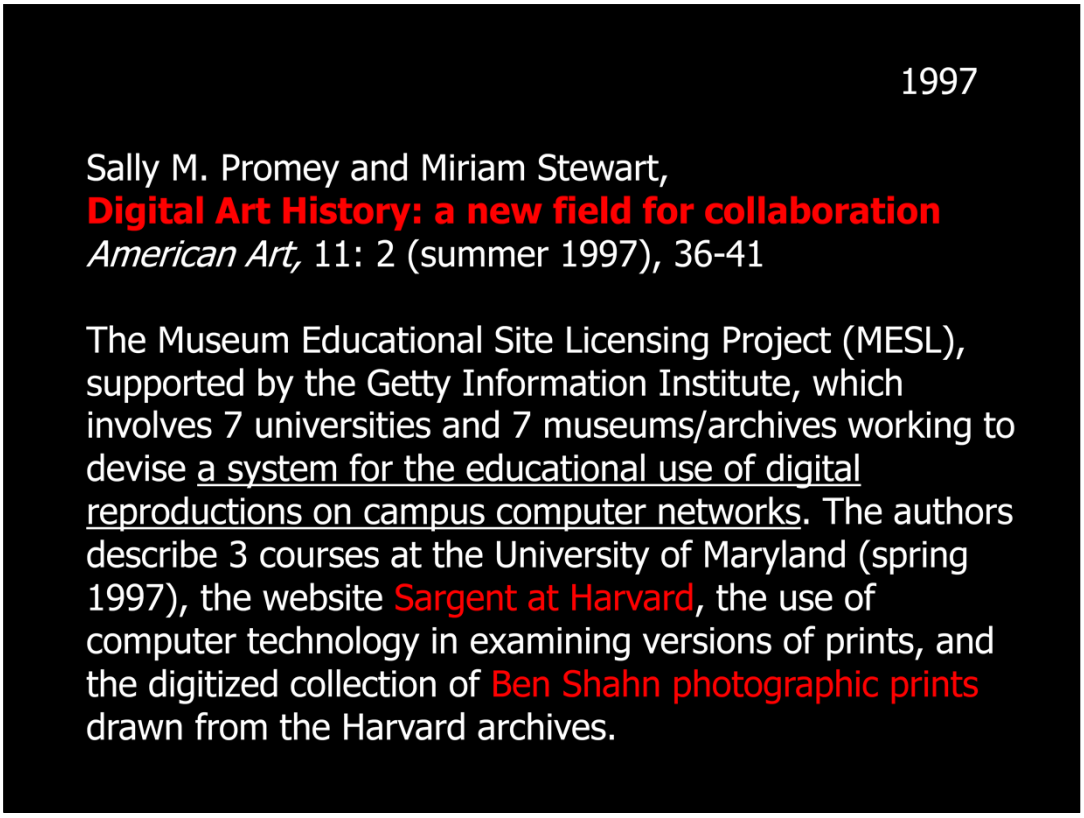
This relinquishing of the leadership to other departments has many reasons. Access to technology and technical expertise is one of them.

I was able to introduce machine haptics to the Digital Art History course that I've been teaching since 1999, because I don't teach in an Art History department, and I am not restricted by traditional art-historical syllabi; and because I was able to resort to the help of a colleague from a different institution. Together we teach a class on virtual artefacts and digitally simulated touch. David Prytherch from the UserLab at the Birmingham Institute of Art and Design, Birmingham City University, brings his haptic equipment to King's College London. Each student can have a brief 'object handling' session, and as a result, his own opinion on the worth of this technology.



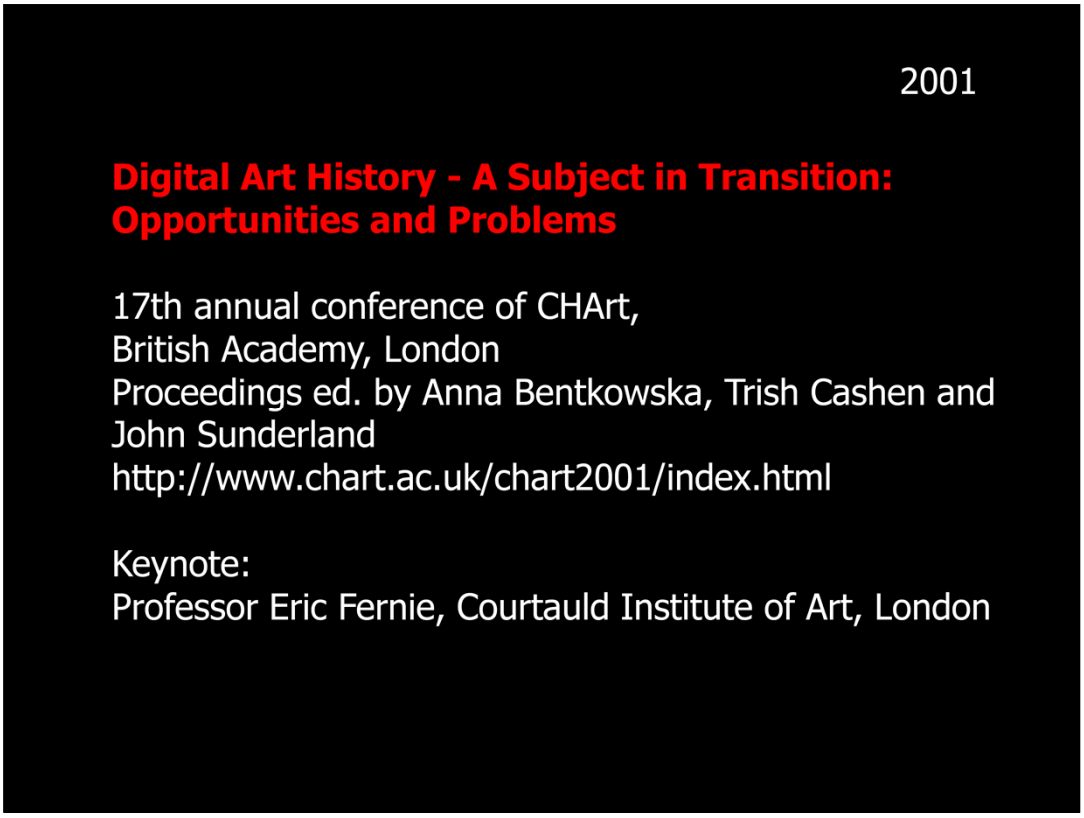
In our preoccupation with the visual we seem to have forgotten how much we can learn about an object through touch. The restrictions in handling museum objects are perfectly understandable. But there were times when touching art was encouraged. The founder of the British Museum, Hans Sloane, for example, promoted authentication of art objects through touch. He allowed the visitors to touch objects in his collection.

Good understanding of machine haptics is important for those who are interested in developing virtual museums. Increasingly, virtual museums consist of 3D records of actual artefacts presented in an immersive and interactive environment. Modern museology and Digital Art History play an important role in evaluating and shaping such experiences, widening access to visual culture to the visually impaired.



Digital Art History has been mainly promoted through projects employing digital technology. Little effort has been made to connect projects and evaluate emerging methodologies. Even less effort has been made to offer critical perspectives. In contrast, the conceptualisation of digital art practice has been more successful; the theory and practice of computer art seem far better integrated.

Despite the promising title of this article, there is no mention of Digital Art History in the text. The authors talk about teaching and learning with digital images. The paradigm shift from Art History to Digital Art History is hinted by a number of insightful observations and distinctions (such as: "looking AT images" and "working WITH images"). They also recognise "the larger implications of new electronic technologies for visual education and scholarship in the museum and the academy" [p.36].



Since its initiation in 1985, CHArt "has set out to promote interaction between the rapidly developing new Information Technology and the study and practice of Art. [Over the years] it has become increasingly clear that this interaction has led, not just to provision of new tools for carrying out of existing practices, but to the evolution of unprecedented activities and modes of thought. It was in recognition of this change that we decided, in 2001 to hold a conference entitled 'Digital Art History' suggesting – perhaps a little ahead of time – a new kind of intellectual fusion." – explains William Vaughan.[1)] The subject of the conference proved extremely controversial. In his keynote address Eric Fernie questioned the very concept of Digital Art History as a subject separate from the traditional history of art.

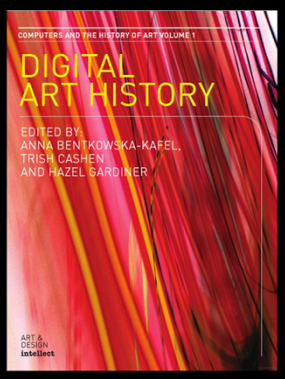
[1)] William Vaughan, 'Introduction. Digital Art History?', *Digital Art History - A Subject in Transition,* A. Bentkowska-Kafel, T. Cashen and H. Gardiner, Bristol & Portland, OR: Intellect, 2005, p. 1.

2002

Digital Art History?
Exploring Practice in a Network Society

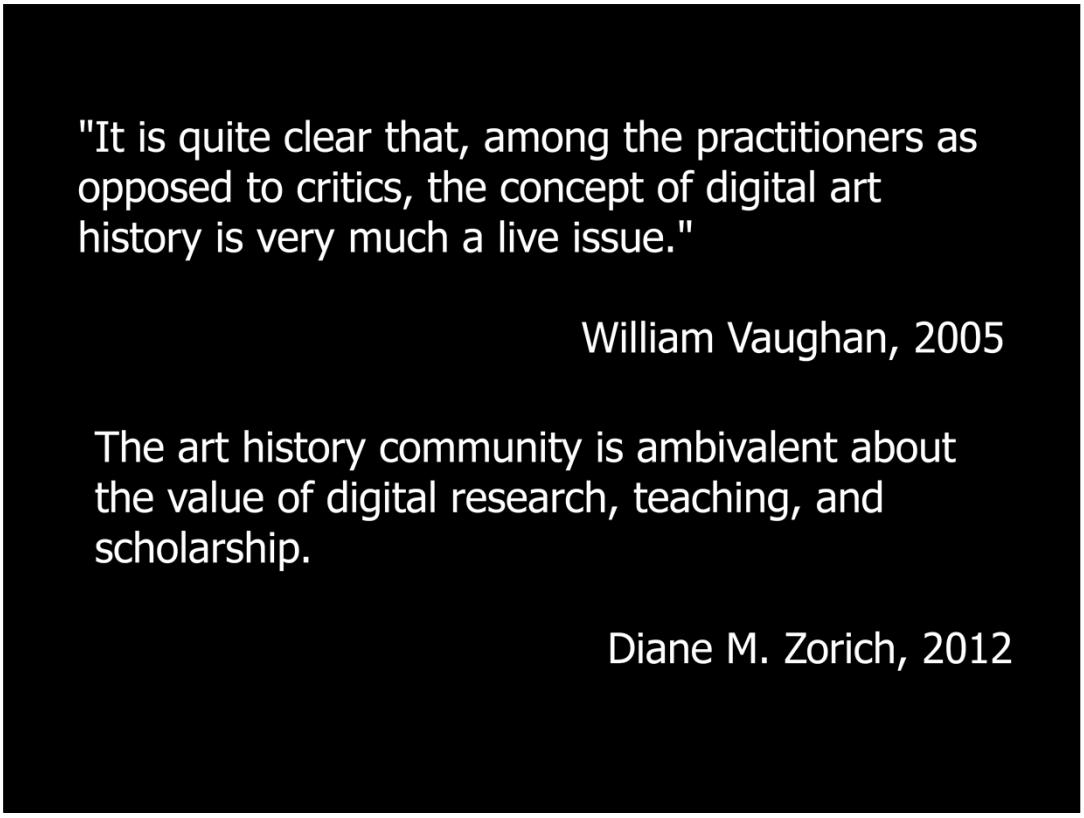
18th annual conference of CHArt
British Academy, London, Proceedings ed. by Anna Bentkowska, Trish Cashen and John Sunderland
http://www.chart.ac.uk/chart2002/index.html

2005



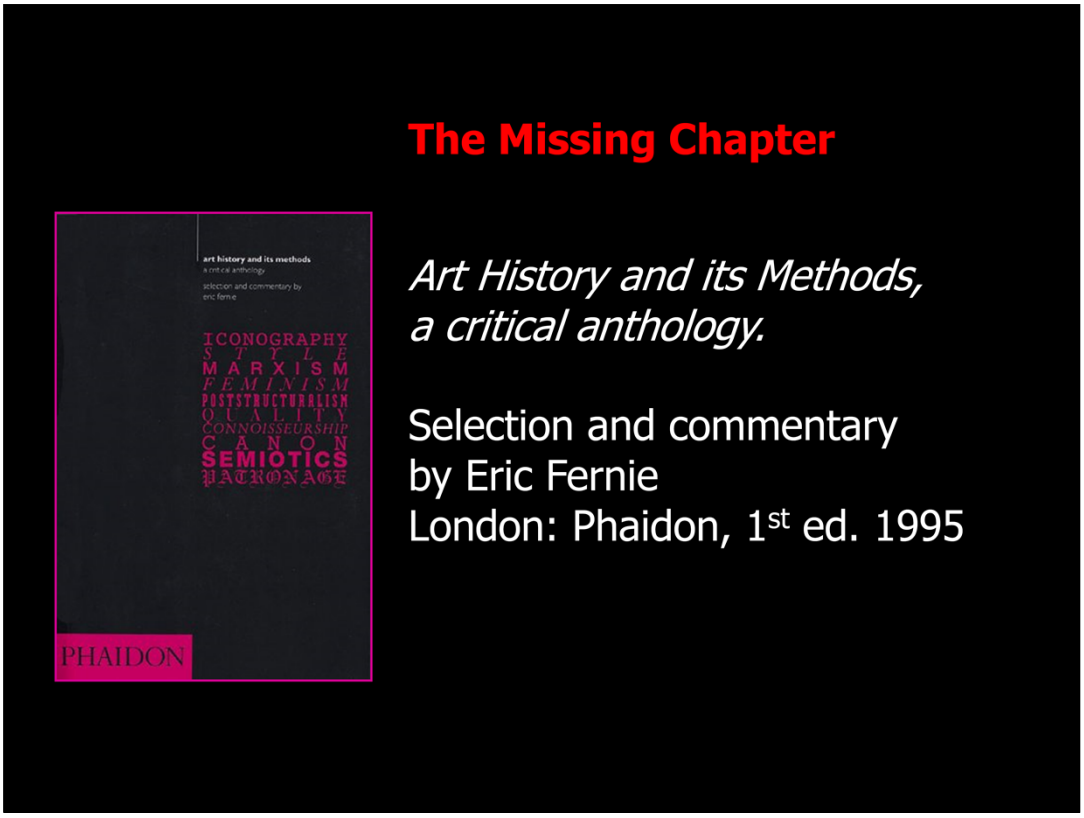
Digital Art History - A Subject in Transition
Bristol & Portland, OR: Intellect
Ed by A. Bentkowska, T. Cashen and H. Gardiner
Intro & chapter by William Vaughan

Capitalising on the controversy and growing interest in the subject, CHArt organised another conference titled 'Digital Art History' in 2002, also at the British Academy. On this occasion a question mark was added to the title, and a focus on practicing art history in a network society. In 2005 a selection of papers was published in book format, in addition to two earlier online volumes of proceedings. A founding member of CHArt and its longstanding chairman, William Vaughan, contributed an introduction and chapter to the book. This particular discussion of Digital Art History on the CHArt forum is documented by 24 papers by 37 authors from Austria, Australia, Brazil, Britain, Denmark, Germany, Norway, Slovenia and the USA. Although wide-ranging in its interests and very much international, CHArt's voice seems too weak to be heard.



Diane Zorich's report is an indicator that the community at large continues to raise the same questions and concerns, almost ignoring the considerable body of earlier research. Diane uses the phrase Digital Art History 'to represent art historical research, scholarship and/or teaching using new media technologies.'[1)]

[1)] Diane M. Zorich, *Transitioning to a Digital World. Art History, Its Research Centers, and Digital Scholarship,* A Report to the Samuel H. Kress Foundation and the Roy Rosenzweig Center for History and New Media, George Mason University, May 2012, note 2, p. 8.

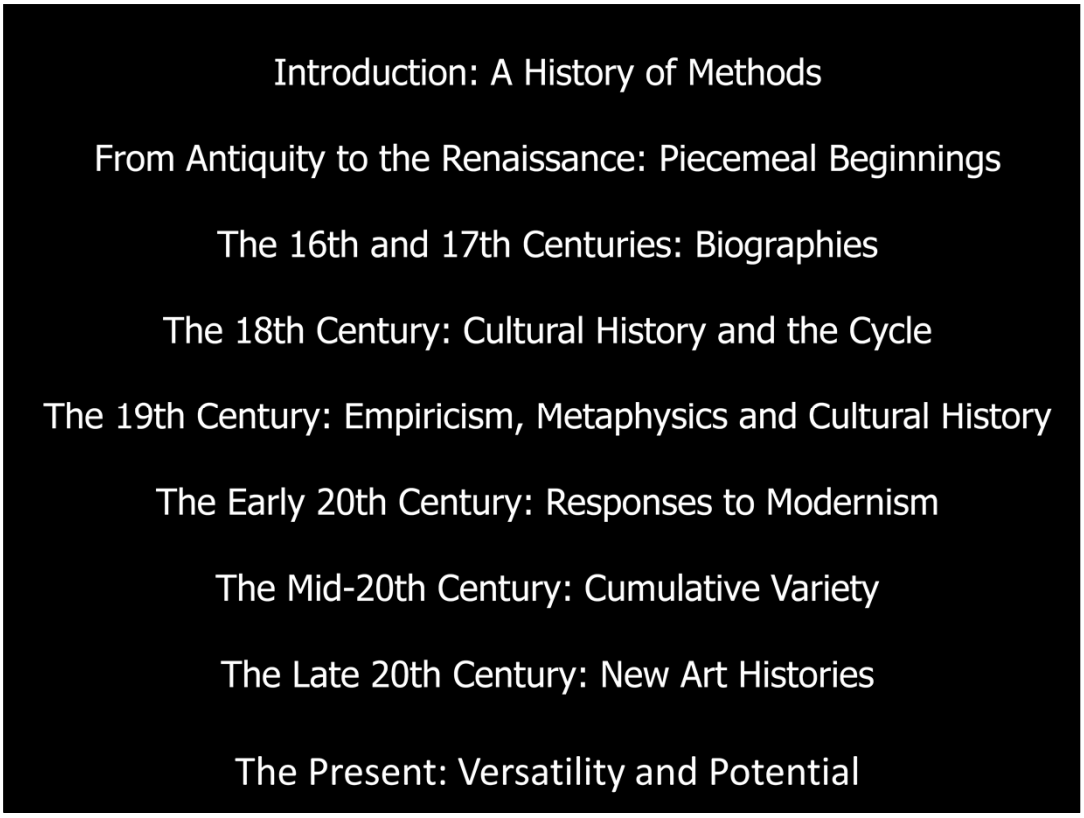


My next point is about the inadequate representation of computer-based research in the historiographic cannon of mainstream art history.

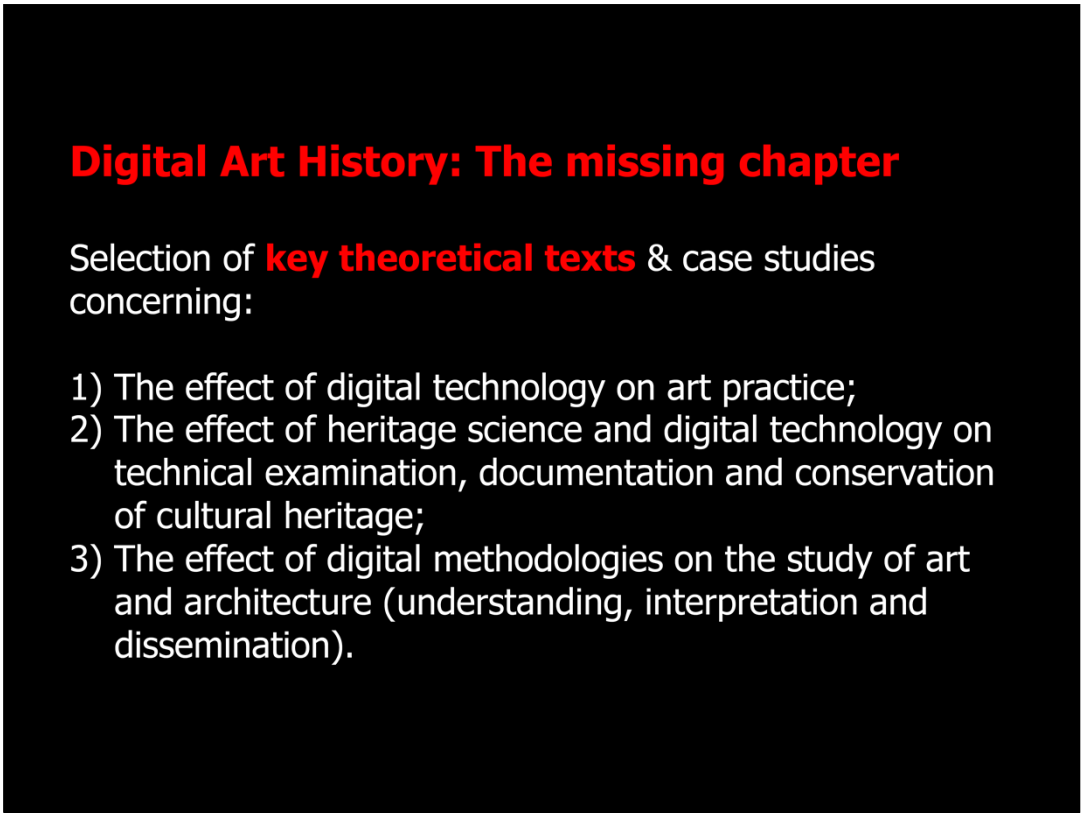
What textbook would you recommend to a student or colleague interested in finding out about Digital Art History?

In the introduction to his popular *Art History and its Methods*, Eric Fernie refutes the apparent 'death' of Art History and addresses a particular need. He writes: "My aim in writing and compiling this book has been to present a view of the methods which art historians have found appropriate or productive in studying the objects and ideas which constitute their discipline. Given the scrutiny which the History of Art has attracted over the last twenty years it seemed that undergraduates might welcome a discussion of the range of approaches available to them for the study of their subject..." [1)]

[1)] *Art History and its Methods, a critical anthology,* Selection and commentary by Eric Fernie, London: Phaidon, 1st ed. 1995, p. 8.

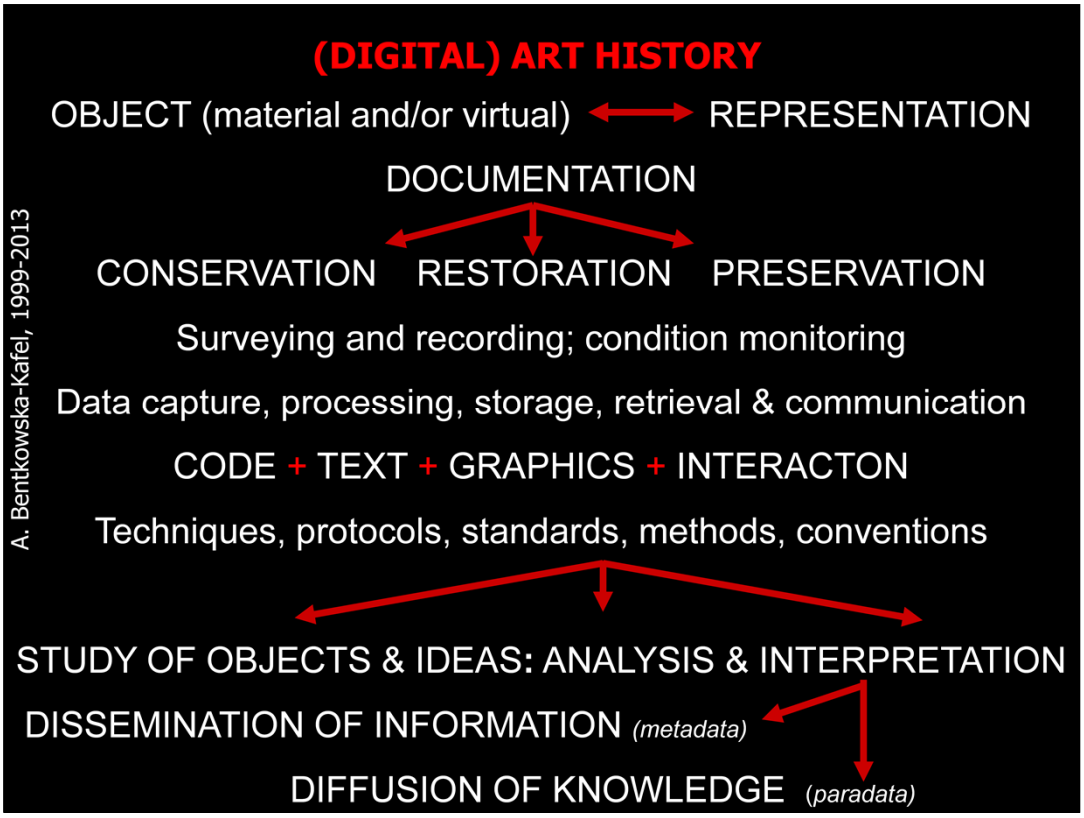


This is how Fernie organises his anthology of texts that follows his general introduction on the methods. He describes the range of methods and theoretical perspectives available in the mid-20th century as a 'cumulative variety', and those of the present (i.e. the time when his book was published in 1995) as 'versatility and potential'. No word 'computer' or 'digital', not even 'digital image' is mentioned.



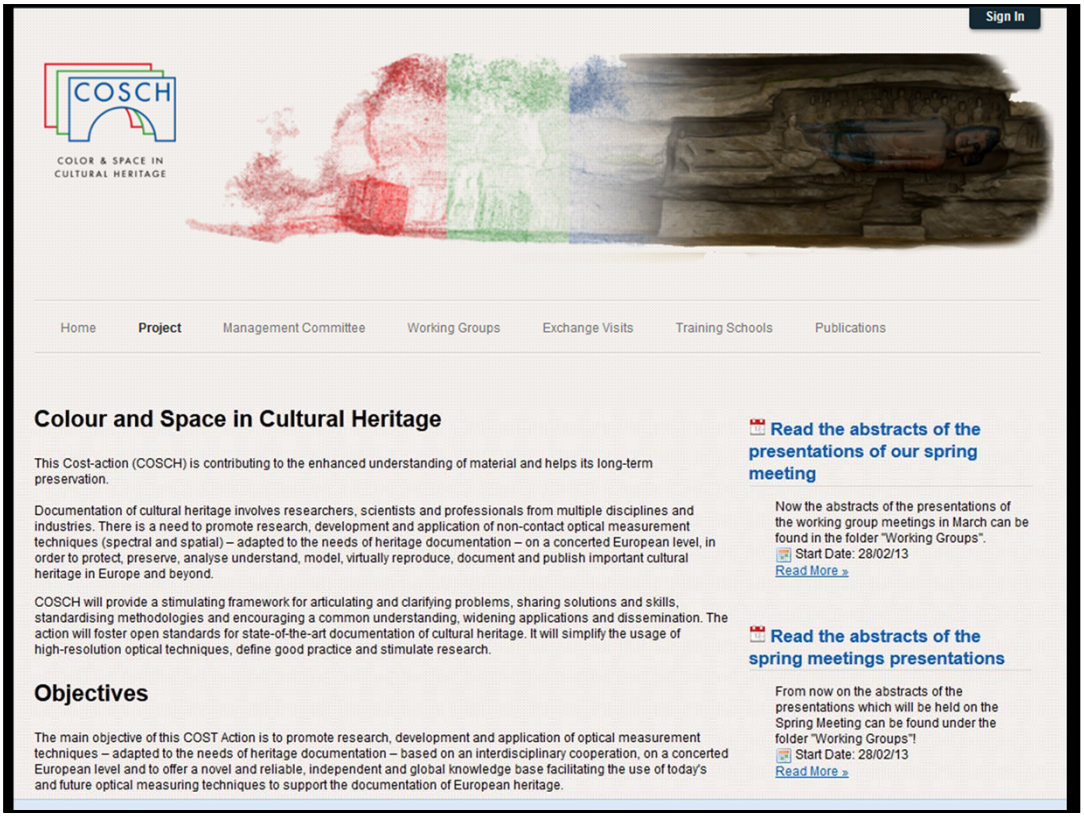
Adding a chapter on computer applications to Fernie's book would help the perception of Digital Art History as a field within the established disciplinary cannon rather than a discrete discipline in its own right. What key theoretical text, or texts, in the area of Digital Art History could be added to those by Vasari, Winckelmann, Riegl, Panofsky and other luminaries, and offer a comparable weight of argument? When Lev Manovich was asked to identify the most significant written works about digital art, he came up with a list of ten titles, of which two relate to major events in electronic arts. [1)] With its nearly three decades-worth of publications and resources, Digital Art History should be able to establish its own canon of critical texts.

[1)] Lev Manovich, 'Ten Key Texts on Digital Art: 1970-2000', *Leonardo*, Vol. 35, No. 5, Tenth Anniversary New York Digital Salon (2002), pp. 567-569 and 571-575, also available at http://manovich.net/digitalsalon.htm

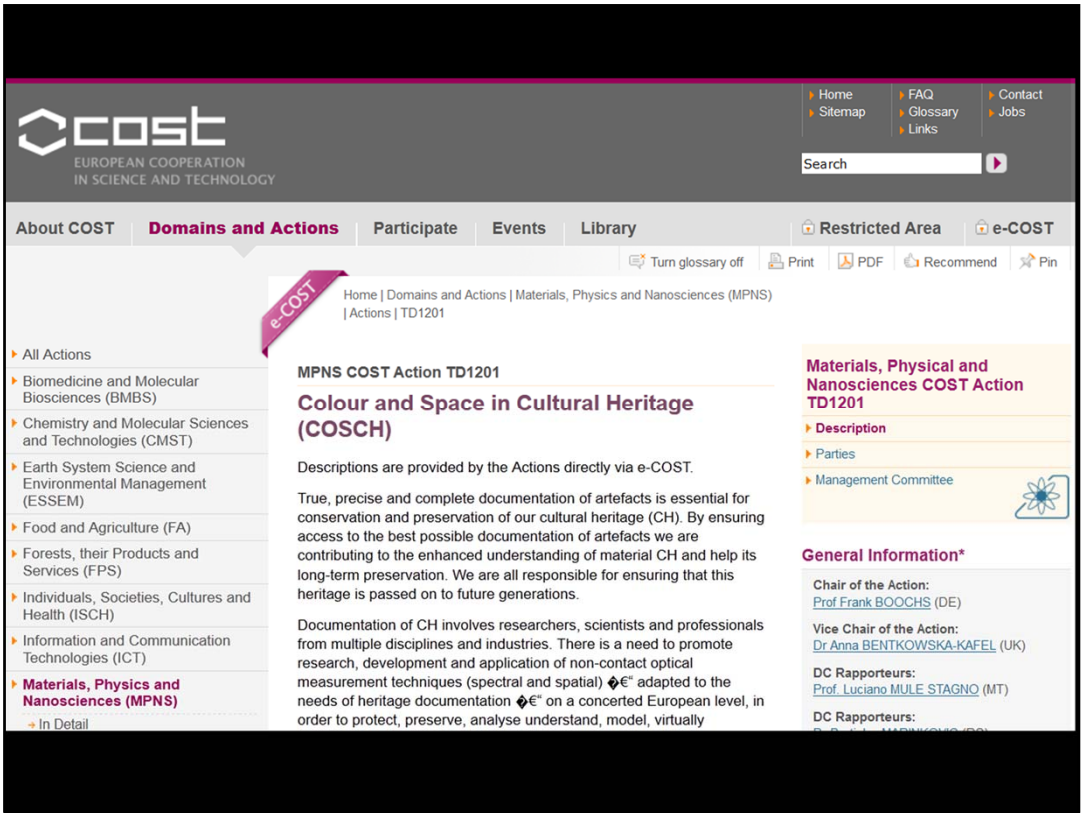


Although the use of computational methods in art-historical research is no less controversial than it was 30 years ago, there seems to be a general agreement that digital technologies enhance the recording of art objects and that documentation is key to the study of art. Although not without its own problems, technical Art History, or Heritage Science, is a success story of Digital Art History. In research and teaching we want to use images of the same high quality as those used in modern art conservation, and this is slowly becoming a reality.

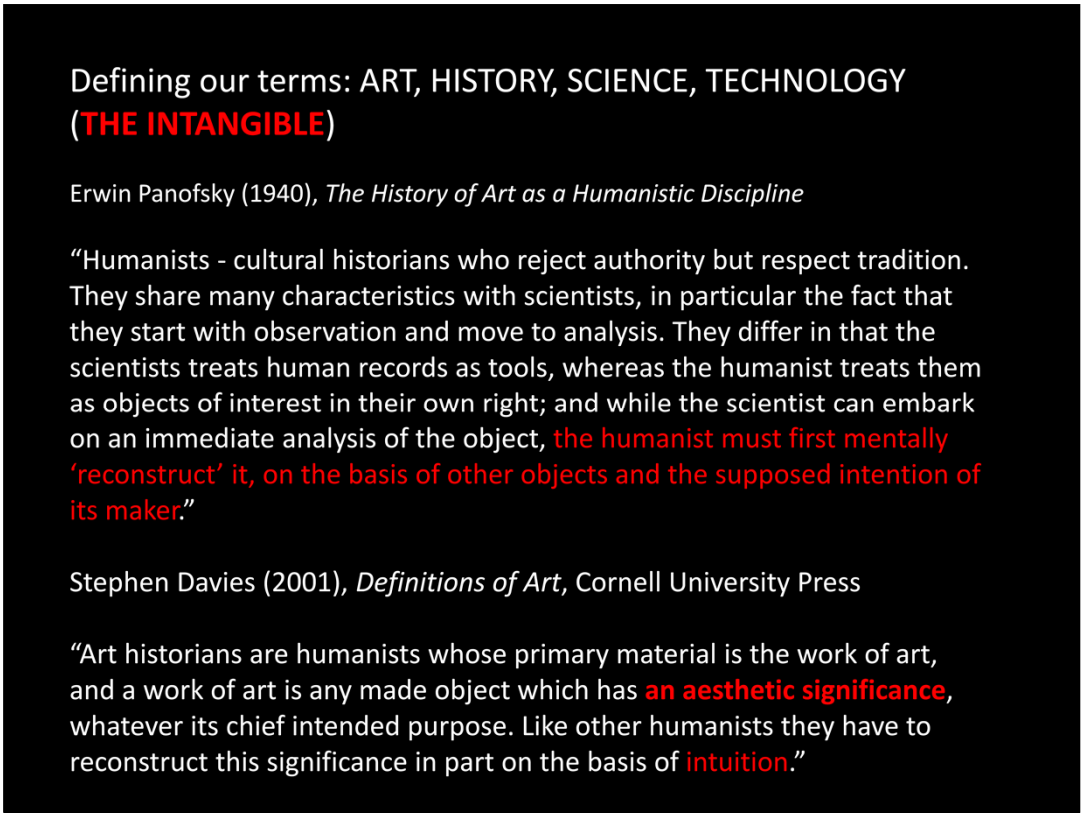
Colorimetric images of paintings in the National Gallery in London and other collections are now available not only to conservators, but to the general public. This is a result of a number of large collaborations – since the 1990s – between museum professionals and imaging scientists, and later also specialists in web technologies. Projects such as VASARI, MARC I and MARC II, VISEUM and CRISATEL – made a real difference. Copyright and peculiar restrictions in the use of high-res images are less of a problem than they used to be only a few year ago. The positive change is primarily due to better understanding of the benefits of open access to specialised applications of technology. We need more such resources as the website of the Scientific Department of the National Gallery in London.



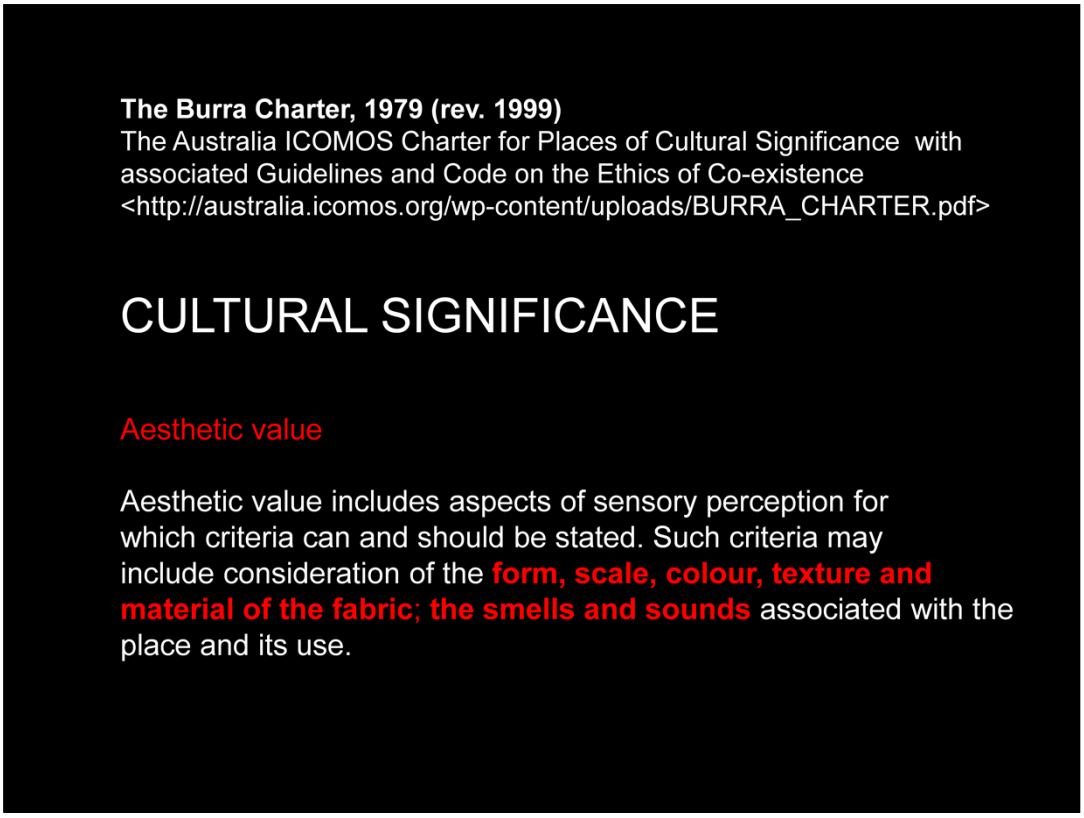
There is a much better understanding of the value of 3D records particularly those based on the optical surveying techniques. We are slowly starting to embrace 3D visual records in our various art-historical practices. *The Colour and Space in Cultural Heritage* (COSCH) is a new collaboration, currently between 23 European countries, bringing together some 90 specialists in multispectral imaging, laser and structured light scanning, as well as art historians, museum curators and conservators. Our intention is to enhance the existing imaging standards and ensure that the needs of non-scientific users are well understood and provided for. How scientific findings feed back into the art-historical discourse is important.



The challenge for this user group is enormous. COSCH takes many of us non-scientists outside our professional comfort zone. The networking activities of COSCH are funded by the European Cooperation in Science and Technology (COST) under its domain – Materials, Physical and Nanosciences.



Shared understanding of basic terms and concepts is paramount in such interdisciplinary collaborations, yet often difficult to achieve. Here are two quotes from art-historical writings that show the difficulties we face. The significance of the intangible aspects of art – the intention of the artist, the intuition, aesthetic significance – are almost impossible to convey in 'measurable' terms.



My traditional training in Art History and museum background helps me with selection of texts that make such an ambiguous term as 'aesthetic value' scientifically measurable or quantifiable.

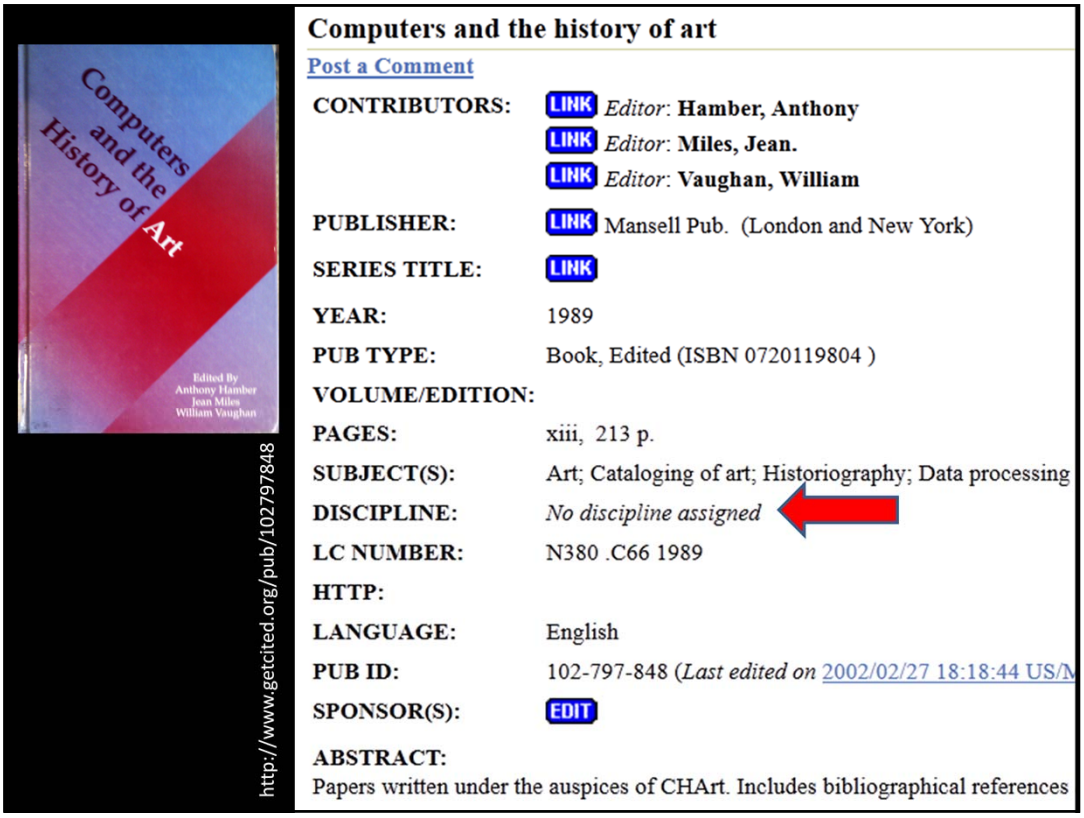
Formalism

Heinrich Wölfflin (1886)

Wölfflin's five pairs of polarized categories:

linear and painterly,
plane and depth,
closed form and open form,
multiplicity and unity,
clearness and unclearness.

The same can be said about Wölfflin's pairs of polarized categories of forms. Whether interpreted figuratively or scientifically, such categories make an interdisciplinary discussion hugely stimulating.

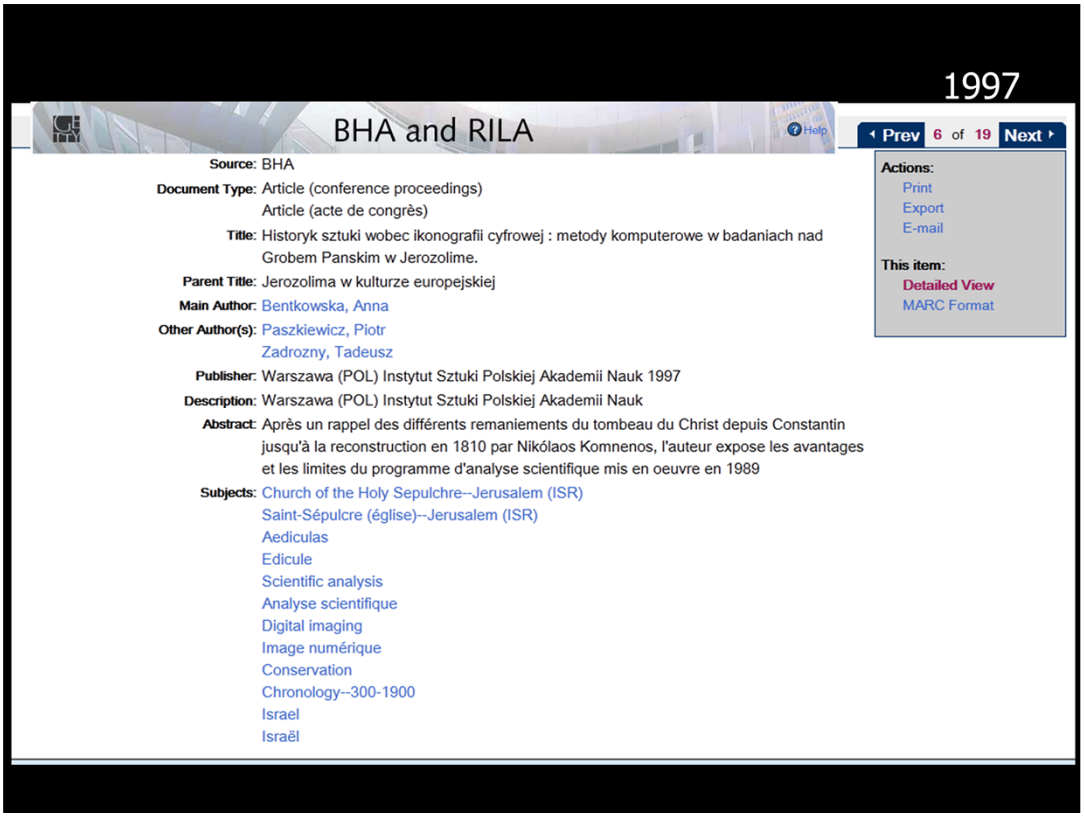


NB in Fig.: "No discipline assigned"

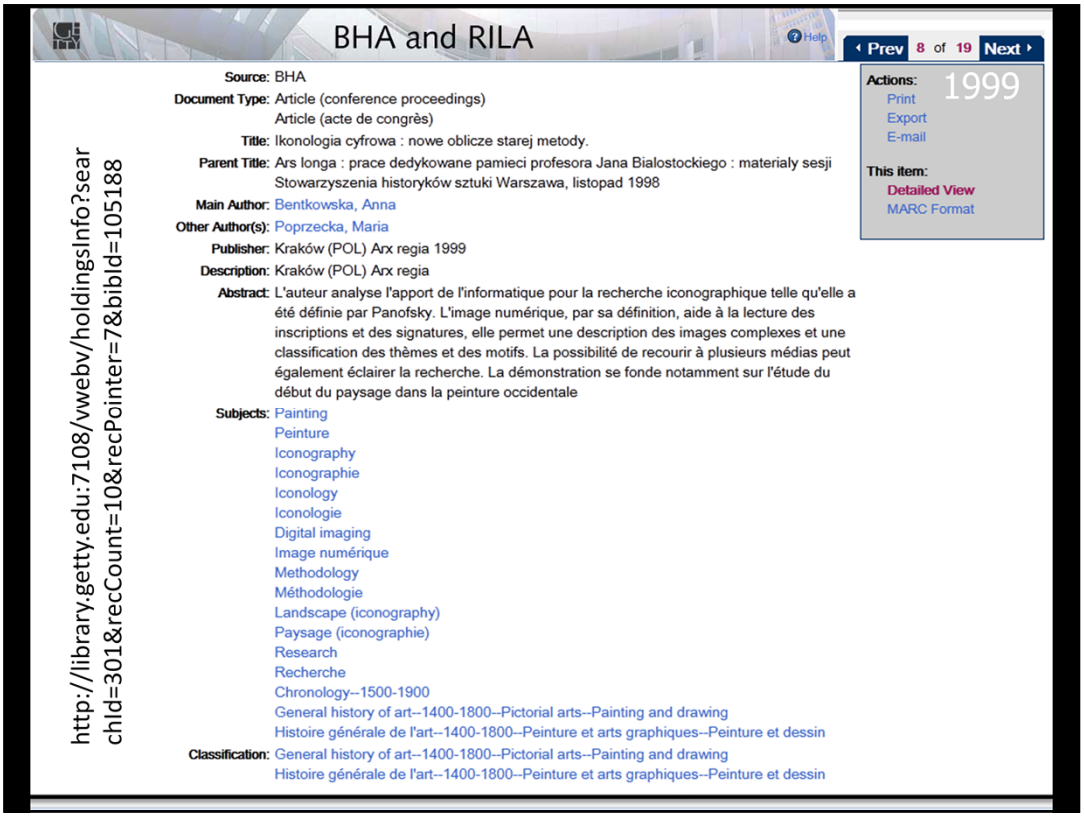
Why has Digital Art History failed to establish itself more firmly?

In conclusion, I should like to address two more practical points concerning the disciplinary credentials. Assuming that standard bibliographies are still in use it is important to ensure they rely on terms that describe the work of Digital Art History adequately. Bibliographic 'classification serves to inculcate the basic structure of knowledge'. [1)] The imperfection of the Library of Congress Classification was known for relegating such areas of creativity as photography outside Visual Arts (Class N) to engineering (Class T).[2)] The lack of transparent classification for publications in the area of Digital Art History, sometimes classed generically as data processing, is even more frustrating.

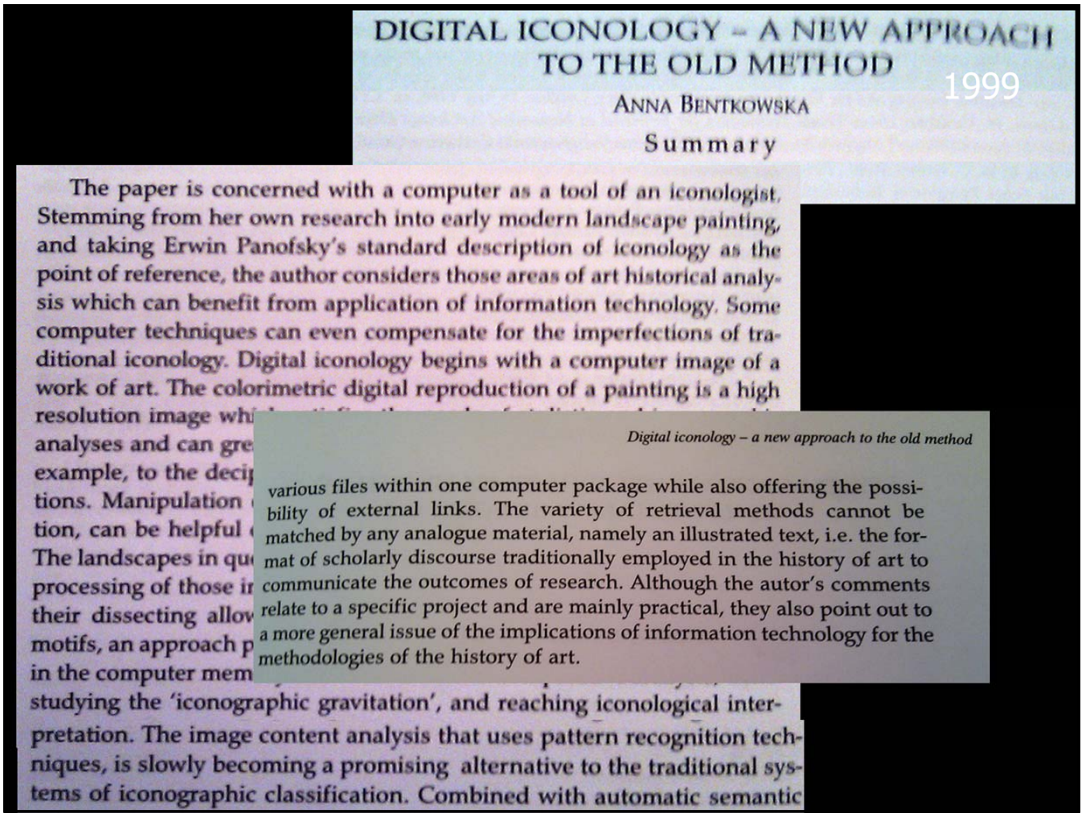
[1)] Francis L. Miksa, 'The Concept of the Universe of Knowledge and the Purpose of LIS Classification', *Classification Research for Knowledge Representation and Organization*, Nancy J. Williamson and Michele Hudon, eds, Amsterdam, 1992, p. 104.
[2)] Robert S. Nelson, 'The Map of Art History', *The Art Bulletin*, Vol. 79, No. 1 (March, 1997), pp. 30-31.



Accurate bibliographic description of the content and methodology is always important, possibly more so for work published in an obscure language.



The two bibliographic (MARC) records used as examples here show how technical terminology has gradually entered the classification of art-historical research, mainly through the intermediary of the digital image. Both records note those familiar elements of the content that place the publications within 'general history of art, 1400-1800'. The articles discuss the concept of digital iconography and the method of digital iconology. A discrete class of Digital Art History would be more suitable here.



DIGITAL ICONOLOGY – A NEW APPROACH TO THE OLD METHOD

1999

ANNA BENTKOWSKA

Summary

The paper is concerned with a computer as a tool of an iconologist. Stemming from her own research into early modern landscape painting, and taking Erwin Panofsky's standard description of iconology as the point of reference, the author considers those areas of art historical analysis which can benefit from application of information technology. Some computer techniques can even compensate for the imperfections of traditional iconology. Digital iconology begins with a computer image of a work of art. The colorimetric digital reproduction of a painting is a high resolution image wh
analyses and can gre
example, to the deci
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in the computer mem
studying the 'iconographic gravitation', and reaching iconological interpretation. The image content analysis that uses pattern recognition techniques, is slowly becoming a promising alternative to the traditional systems of iconographic classification. Combined with automatic semantic

various files within one computer package while also offering the possibility of external links. The variety of retrieval methods cannot be matched by any analogue material, namely an illustrated text, i.e. the format of scholarly discourse traditionally employed in the history of art to communicate the outcomes of research. Although the autor's comments relate to a specific project and are mainly practical, they also point out to a more general issue of the implications of information technology for the methodologies of the history of art.

Apart from a good textbook and classification systems adequate to the nature of digital scholarship, my last practical point concerning the visibility of Digital Art History is about qualifications that represent the training and expertise particular to this field. In the 1990s Birkbeck College, University of London, UK, offered a postgraduate course in Computing Applications for the History of Art. The course was later renamed "MA Digital Art History". It is no longer offered. I have renamed my postgraduate module in Digital Art History. It is now called Digital Arts and Culture. The students graduate with a Master's degree in Digital Humanities or in Culture, Media and Creative Industries. Digital Art History is thriving, but we need to bring it home.