Debating Digital Art History

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Abstract: This paper offers a few reflections on the origins, historiography and condition of the field often referred to as Digital Art History (DAH), with references, among others, to the activities of the Computers and the History of Art group (CHArt, est. 1985) and my personal experience, spanning over 20 years, first as a postgraduate student, then doctoral researcher and eventually Lecturer in DAH. The publications and teaching activities of scholars connected to CHArt are seen as indicative of the evolution of the field internationally. Personal experience, or a reality check, is limited to higher education in the UK. The key argument here concerns the questionable benefit of promoting DAH as a discrete discipline and detaching digital practices from the mainstream history of art and its institutions. When introduced in the late 1990s, the ‘DAH’ served to indicate a dramatic shift in the way art history could be practiced, taught, studied and communicated. The changes were brought about by widening access to computers and information technology. DAH was suggested—“perhaps a little ahead of time—as a new kind of intellectual fusion” (W. Vaughan). It is no longer necessary to argue for the wise use of computers. Digital technology has become part and parcel of teaching, learning and research. It is the History of Art and its more traditional research methods and critical perspectives that are seen at risk of neglect. The theories of crisis, even ‘death’ of Art History have contributed to general anxiety over the discipline’s future. However, a discipline has “the ability and power to control and judge its borders” (R. Nelson). The discipline of Art History is richer and stronger through the fusion of digital scholarship with, not separation, from more traditional methodologies and critical canons. The need to continue with the ‘digital’ distinction is questionable.

Keywords: art history, arts computing, digital art history, historiography

Digital Art History. A new or old field?

HAIR – History of Art Information and Resources; HAGGIS – History of Art Group for Information Systems; and HACKS – History of Art, Computers, Knowledge, Slides, were among many names proposed in 1985 for a group, which eventually established itself internationally under the name of Computers and the History of Art, or CHArt. The
acronym CHIMERA was also considered, in the same light-hearted spirit, but was rejected on the grounds of ‘enough anxieties about our ontological status already’.

Thirty years on, does this anxiety not sound familiar to those engaged in art-historical computing?

After a few years of intense activity and debate, in 1989 CHArt published its first scholarly overview of the field. The book was titled, predictably, Computers and the History of Art. A bibliographic record, located in what appears an early online library catalogue, reads ‘No discipline assigned’ (Fig. 2). It shows the bibliographer’s inability to assign the title to any discipline known at the time. Why the bibliographer did not classify this book under the History of Art, which features in the title, gives food for thought.

The present new Journal and numerous recent and upcoming international events are indicative of the renewed interest in Digital Art History (DAH). Four institutes held in the US in the summer of 2014 led to the belief that ‘Digital Art History Takes Off’. This has been a frustratingly long ‘take-off’. The tendency is to discuss and define this field through its presumed novelty and in opposition to art-historical scholarship and its dissemination formats that do not rely on digital media. Digital Humanities (DH) has been engaged in a similar debate. The blurred relationship between DAH and DH has been noted on many occasions. For example, in the Digital Art History workshop organized by the Getty Research Institute and the University of Málaga in 2011. The resulting publication, with additional material, includes the burning question, on this occasion...
raised by Johanna Drucker, ‘Is There a “Digital” Art History?’

Why do we continue raising questions concerning the ontological status of DAH? Are we asking the wrong questions? Or, being engaged in this field in one way or another, are we simply asking for recognition? Those who are new to this debate, students in particular, may find this continued scrutiny of the place of digital technology in the art-historical practice and critical inquiry confusing and perhaps even pointless. These few personal reflections on the origins, historiography and condition of DAH are addressed to them.

Am I a Digital Humanist or a Digital Art Historian or, simply, an Art Historian?

The big question for this Journal—what is DAH?—has been recurring since the late 1990s. The desire to define the field anew has been the reason for convening the aforementioned recent international events. What it takes to become a digital art historian and pursue a career in this field is an interrelated question. In most disciplines the level of professionalism is normally determined by a degree or another recognized qualification after a period of training. If one practices medicine without a diploma, one is a charlatan; if one paints without having studied fine art, one is a dilettante. Is it necessary to have a degree in DAH to be considered a professional digital art historian?

In 1990 the Department of the History of Art at Birkbeck College, University of London, introduced an MA in Computer Applications for the History of Art, later renamed MA DAH. Postgraduate students were taught by the art historian William Vaughan, photography expert Anthony Hamber and art imaging scientist Kirk Martinez, among others. These academics were engaged at the time (1989–92) in the European Esprit II project, best known under the acronym VASARI — Visual Art System for Archiving and Retrieval of Images. The project was a collaboration between Birkbeck, the National Gallery in London, Bramuer Ltd. UK, Telecom Paris, the Doerner Institute in Munich and other institutions. Benefiting from the funding of around US$2 million, the project developed a prototype scanner and a methodological basis for accurate color reproduction of paintings, for the purpose of recording and conservation.

Apart from the expertise of the teachers and their infectious enthusiasm for computing, Birkbeck’s students benefited from a departmental Vasari computer lab. It was well-equipped with networked Mac and IBM computers, a Silicon Graphics workstation for imaging and 3D work, scanners and a wide range of software. The syllabus could be envied by many Art History departments even today. The emphasis was on critical dis-
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Cussion of the value of using computational methods in art-historical investigations. Essay/exam questions included, for example: ‘To what extent have imaging techniques for pictorial analysis yielded concrete results for the study of art history?’; ‘Discuss the value of using statistical methods in the study of history of art, using specific examples.’ [my emphasis] Of course, to be able to answer such questions, it was mandatory for the student to have a background in art history, as well as acquire practical computing skills, including basic coding. I arrived at Birkbeck with a master’s degree in ‘straightforward’ ‘old’ History of Art and several years of curatorial museum experience. The reading list drew on a considerable body of specialist literature published in the 1980s, with a significant number of titles published by CHArt and the Getty Art History Information Program (AHIP). The course is no longer offered.

Having graduated from Birkbeck in 1994, with an MA in Computer Applications for the History of Art, I went on to do a PhD in digital iconology. I located a small body of some 50 Early-Modern paintings, drawings and prints representing nature in human form. I undertook to establish, mainly through sixteenth- and seventeenth-century cosmological texts, the purpose and meaning of such anthropomorphic representations for the contemporary beholder. I was curious to find out why a number of mediocre artists depicted landscape as a human figure; how many such works have survived, in what form and where. I wanted to describe, classify, date and attribute these double images to particular schools and propose an indexing system independent of ambiguous subject classifications. I was also driven by a determination to prove a prominent critic of my chosen computational methods wrong. I owe him my gratitude. Every stage of my ‘old-fashioned’ research—pre-iconographical, iconographical and iconological—benefited from digital tools, computer graphics, pattern recognition and image processing in particular.10

In the course of my unconventional career I have had the opportunity to slowly, but steadily introduce classes in DAH. First, in 1995, to a BA (Hons) Art and Design History course at Southampton Institute, then to the graduate and postgraduate programs at Birkbeck and the Centre for Computing in the Humanities at King’s College London. I renamed the King’s module to Digital Arts and Culture, making it more approachable to students. In 2014–2015 it is being offered for the last time.

King’s Digital Humanities has offered me a stimulating academic environment; a scholarly community of distinction with critical enthusiasm for arts computing. From 2000–2008 I also worked at the Courtauld Institute of Art on the British Academy’s Corpus of Romanesque Sculpture in Britain and Ireland. Regrettably, there was no interest to embed this or any other large-scale computer-based projects, hosted by the Institute, in the teaching curricula, to enable students to learn from the then cutting-edge digitization practices. Project teams endeavored, in collaboration with external specialists, to produce digital images of medieval stain-glass and sculpture of the highest resolution possible, coded records of objects in XML, automated some of the
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editorial processes, designed databases and managed large sets of data, while postgraduate students and academics continued to rely on the slide library and print reproductions in the Conway and Witt libraries renowned for the custom-made, red and green filing boxes. The situation at King’s Centre for Computing in the Humanities (now the Department of Digital Humanities) was quite the opposite. Postgraduate teaching has always evolved around scholarly computer-based projects, which established the reputation of the Department. This has been a computer-friendly environment, but my art-historical specialism, with its emphasis on visual arts, rather than text, felt out of place.

It was the recognition of digital visualization as a scholarly method of Digital Humanities that provided a welcome context to my research, and extended teaching and training opportunities to include historical visualization and virtual museums. Through experimentation with digital tools and processes my students and I have been able to better understand the complexity of human perception. The opportunity to experience and discuss, for example, the potential cognitive value of machine haptics in simulating touch and handling of museum objects that is normally not possible, made us more aware of the extent to which art-historical appreciation and museum education privilege the role of visual experience (Fig. 3).

Despite benefiting from affiliation to DH, I believe the place of DAH is within academic art institutions, ideally with access to teaching art collections.

Digital Art History. A history

Art History has been described by Robert Nelson as “a discipline that typically studies the histories of everything but itself, conveniently forgetting that it, too, has a history and is History.”

An early use of the phrase ‘DAH’ is in 1997 by Sally M. Promey and Miriam Stewart in “Digital Art History: a new field for collaboration”, published in American Art. The authors describe teaching and learning with digital images, and recognize “the larger implications of new electronic technologies for visual education and scholarship in the museum and the academy”. There is no mention of DAH other than in the title, but the authors offer a number of insightful observations concerning the subject.

Since its initiation in 1985, CHArt “has set out to promote interaction between the rapidly developing new IT 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 ‘DAH’ [A Subject in Transition: Opportunities and Problems], suggesting – perhaps a little ahead of time – a new kind of intellectual fusion.”
explains William Vaughan. The subject of the conference proved extremely controversial. Therefore, the following year CHArt convened, again at the British Academy, the conference Digital Art History? Exploring Practice in a Network Society, adding a question mark and the emphasis on the impact of the internet on art and AH. CHArt's voice was international and far-ranging, but not unanimous in the understanding of DAH.

One may argue that the founding principles and methods of DAH were laid down decades ago. The vision and achievements of pioneers of arts computing deserve proper recognition. Some key concepts were developed well before the advent of personal computers and the internet, in anticipation of information communication technology as it is known today. “A worldwide museum information network for research, [...] lectures and simulated exhibitions (in audio/visual form) delivered electronically, upon request, to a classroom console or even to the home” was Everett Ellin’s vision already in the mid-1960s. Significant considerations and applications of computer technology—demonstrating its benefit to the study of art—go back to the 1980s. The second Conference in Automatic Processing of Art History Data and Documents, held in Pisa in 1984, set the international research agenda for years to come. The need to learn programming languages seemed then inevitable and frightened most art historians, but not William Vaughan. In the 1980s he initiated the development of early pattern recognition software for matching and retrieval of images of paintings. Using the University of Cambridge (UK) mainframe computer, the architectural historian Tim Benton of the Open University created a database of Le Corbusier’s architectural drawings and notes. He went on to enhance this resource with tools for scaling and comparing the drawings in a way not possible with paper originals. The resource is not widely available, but the insights into the architect’s creative

Figure 3: Understanding touch and its value in art studies; a postgraduate class taught by Anna Bentkowska-Kafel, King’s College, London and David Prytherch, Birmingham Institute of Art and Design, 2009–2015.
process it has enabled are evidenced in Benton’s writings. The pioneering work of Marilyn Aronberg Lavin in the course of her research into “the narrative disposition of medieval and Renaissance mural decoration”, since 1988, involved the creation of a database of some 280 fresco cycles and construction of a computer model of the Cappella Maggiore of San Francesco in Arezzo, decorated with Piero della Francesca’s the Legend of the True Cross. A later version of the 3D model is, remarkably, still available online.

When we talk about the nature and significance of DAH, we recognize the rise in the status of this field. Some of the earlier concerns over Art History “not being at the helm of the sweeping visualization revolution” have been resolved, although not entirely satisfactorily. However, defining the nature of DAH, in all its cognitive and methodological complexity, proves more difficult. It is relatively straightforward to look at the applications of digital technology—past and current—to art practice, art scholarship, conservation and education. They give us a good picture how the field has evolved over the years, and help to foresee its possible future directions. Whether applied DAH has led to establishing a theoretical basis that could set the field firmly within or apart from mainstream AH is an open question. There is no area of DAH that cognitively would be distinct from AH. Evolving digital analytical methods facilitate the discovery of new knowledge and review of earlier scholarship. It is particularly satisfying when this discovery comes from students, as in the case of Ryan Egel-Andrews’s original, visualization-
based research into Piet Mondrian’s experiments with architectural space. It challenges earlier assumptions about the artist’s lack of interest in the third dimension.\textsuperscript{24} Three-dimensional computer model of the artist studio supported the reading of Mondrian’s writings and interpretation of Neoplastic principles. A photo-realistic recreation of architectural space was not the aim of this visualization.

Digital Art History has been mainly promoted through applications of digital technology. Little effort has been made to conceptualize this practice; to connect projects and evaluate patterns in emerging methodologies and critical perspectives. Digital Art History has not established its own canon of critical texts. When asked to identify the most significant written works about New Media art 1970–2000, Lev Manovich proposed a list of ten titles.\textsuperscript{25} Literature on applied DAH is abounding, but I would find it difficult to identify critical texts that have made a lasting impact.

Reconnecting Digital Art History to Art History

In the introduction to his popular anthology of critical texts in \textit{Art History and its Methods} (1st ed. 1995), Eric Fernie refutes the apparent ‘death’ of Art History.\textsuperscript{26} He addresses a need to present a history of the methods, “which art historians have found appropriate or productive in studying the objects and ideas which constitute their discipline [believing that] undergraduates might welcome a discussion of the range of approaches available to them for the study of their subject [...]”.\textsuperscript{27} When referring to the present, Fernie notes ‘Versatility and Potential’. There is no mention of the computer. No text concerning its use or impact on key concepts is included in the anthology. While the addition of digital practice and more recent texts would be welcome in future editions (similarly to the anthology edited by Donald Preziosi\textsuperscript{28}), my identification of the lack of theoretical writings concerned explicitly with DAH is not a criticism.

In his keynote address to the first CHArt conference dedicated to DAH, held in 2001, Eric Fernie was not only provocative, but also right to question the very concept of DAH as a subject separate from the traditional History of Art.\textsuperscript{29} DAH scholarship has investigated intrinsically ‘mainstream’ art-historical questions, such as the narrative schemes in Italian Renaissance wall decoration, and artistic principles of Mondrian’s Neoplasticism. Digital iconology needs Panofsky. The study of digital aesthetics would be poorer without Kant or Goodman. A phenomenological critique of virtual historical environments may only benefit from the writings of Wilhelm Dilthey. Walter Benjamin’s \textit{The Work of Art in the Age of Mechanical Reproduction} [1936] is probably one of the most frequently cited texts in discussions of digital culture. Critical perspectives of DAH are well served by a much broader canon.
Art History has always been interdisciplinary and always aware of broader theoretical contexts. Serious art-historical arguments not only require, but necessitate erudite knowledge of—variably—history of ideas, philosophy, history, literature, religion and beliefs, etc. Earlier attempts at defining DAH have been only partly successful, because they sought the differences rather than affinities with established methodologies and conventions. It is impossible to address art-historical questions—whether philosophical, social, political, formal and aesthetic—without drawing on the history of human thought and artistic practice. Digital research into art and cultural heritage, which has not been informed by a professional art-historical knowledge and rigorous scholarly methodology, often demonstrates inferior or uncertain cognitive value of the findings. Examples include historical visualization that does not show the difference between known facts and hypotheses.

Digital Art History is not a discrete discipline, but an umbrella name for methods that involve digital tools, techniques and processes of analysis and interpretation, ranging from basic statistics to complex applications of Artificial Intelligence (computer vision, pattern recognition, automation, etc.). These tools and techniques are not unique to Art History; they are universal methods. The Zurich Declaration on Digital Art History (2014) reads like recommendations for digital scholarship in general. Its eight points—on methodology, authority data, archives and collections, big data, digital workspaces, open access, legal matters and sustainability—describe the conditions that are necessary to practice many other disciplines.

Like ‘New Media’ and ‘Digital Humanities’, ‘DAH’ is a temporary name that has served its purpose. By continuing to emphasize the ‘digital’, rather than
‘art’ and ‘history’, we are contributing to further ontological disruption of the discipline. We should instead stress the significance of earlier thought and methods.

Hans Belting believed that “Both the artist and the art historian have lost faith in a rational, teleological process of artistic history, a process to be carried out by the one and described by the other”. The twentieth-century rift between art-historical scholarship and art practice (about which Belting argued so eloquently, if controversially) is alleviated when an art form is also a means of scholarly inquiry. The De|Coding the Apocalypse exhibition (Somerset House, 2014) may serve as an example of art, which has the power of reconnecting artistic practice with scholarly enquiry and learning. This particular collaboration was between the computer artist, Michael Takeo Magruder, programming and digital technology specialists, and theology scholars. Visiting the exhibition has inspired the students of Digital Arts and Culture to decode the Book of Revelation of St John the Divine and interpret it for their own time.

According to critics, the crisis of academic art history is partly due to changing education needs and students’ loss of interest in historical art; the tendency to ignore historical sources; increasing neglect of fieldwork and archival research; “denigration of critical thinking as practiced in the pre-digital age”. It is therefore counter-productive to continue to differentiate between DAH and AH. The emphasis should be on erudite historical knowledge, including earlier digital scholarship and its historiography. Art, rather than application of digital technology, should be seen as the incentive for acquiring this knowledge. DAH should drop the ‘Digital’ label which soon will become irrelevant anyway. The embrace of digital technology in the best possible manner and in intellectual fusion, not in opposition to critical and methodological traditions of the discipline, is a way of demonstrating that there is no ‘crisis’, no ‘lagging behind’, that continues to plague the reputation of the academic history of art and is discouraging new students.

Students are interested in history when it is presented as relevant and in a way they find appealing. The classroom-based model of teaching, with the typical projection of images of art, away from art being the subject of study, is now an inferior mode of teaching and learning. Although not without logistical problems, a class at the De|Coding Apocalypse exhibition, led by the artist, is a perfect scenario. Students responded with equal enthusiasm, and eagerness to learn, when they visited the National Gallery, London to study Hans Holbein the Younger’s so-called Ambassadors (1533), in the vicinity of other works of the artist and best examples of Western painting.

“What would be a digital modern equivalent to the Holbein image?”—is a question that in the early days of my teaching career I would not have asked of postgraduate students. Today such a question inspires international students of the Google and Wikipedia generation to learn about the making, meaning and provenance of Holbein’s masterpiece; the art, music, science, religion and politics of the time. The students typically re-
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present different cultural backgrounds and very different levels of general knowledge; some are unfamiliar with European Renaissance. In the case under discussion, the inspiration to learn history and digital technology came primarily from the sixteenth-century work of art. The digital collage that resulted from student collaboration was based on a thorough study of sources, surprisingly also books in print. The collage employed a variety of media, including an original musical composition. It was creative and funny, but also thoughtful and critical of the past and present. The students also learned about copyright restrictions that are preventing a public showing of their coursework. The future of the History of Art is in training of the observant eye and knowledgeable, critical mind, using digital tools when useful. CHArt's early idea of HACKS requires only one revision—History of Art, Computers, Knowledge, seriously.

Notes

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2 See Computers and the History of Art (CHArt), www.chart.ac.uk. All URLs active on 15 April 2015, unless stated otherwise.


7 Digital Art History: Challenges, Tools & Practical Solutions, University of Málaga and the Getty Research Institute (GRI), Malaga, 19–22 September 2011, http://digitalarthistory.weebly.com/


11 Anna Bentkowska-Kafel, "Electronic Corpora of Artefacts: The Example of the Corpus of Romanesque Sculpture in Britain and Ireland", in The Virtual Representation of the Past, eds. Mark Greengrass and Lorna Hughes (Farnham: Ashgate, 2008), 179–190.

12 Martyn Jessop, "Visualization as a Scholarly


15 Ibid, 36.


17 The programmes for both conferences are available at http://www.chart.ac.uk/chart01programme.html and http://www.chart.ac.uk/cfp2002.html respectively. Selected papers have been published in two volumes of proceedings online and in book format, op. cit., note 15 above.


21 I wish to thank Marilyn Aronberg Lavin for clarifying the nature and scope of her collaborative computing work; the citation is to email communication of 14 Jan 2013; see her "Piero della Francesca: Legend of the True Cross: 3-D Walkthrough, Realtime, Interactive Computer Model," 1492. Rivista della Fondazione Piero della Francesca 1 (2009): 59–72, revised in http://www.archimuse.com/mw2009/

22 http://projects.ias.edu/pierotruecross


27 Ibidem, 8.


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